

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwasczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                                                                                     | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Dokumenty odniesienia                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <b>Materiały i wyroby do kontaktu z żywnością i inne materiały i wyroby opakowaniowe <sup>1)</sup></b><br><b>Płyny modelowe po migracji <sup>1)</sup></b> | <b>Zawartość alkilofenoli <sup>2), 3)</sup></b><br><b>Metoda wysokosprawnej chromatografii cieczowej z detekcją fluorescencyjną (HPLC-FLD)</b><br><br><b>Migracja specyficzna (z obliczeń)</b>                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Normy <sup>5)</sup></b><br><b>Procedury badawcze <sup>4)</sup></b> |
| <b>Materiały i wyroby z tworzyw sztucznych</b><br><b>Płyny modelowe po migracji</b>                                                                       | <b>Zawartość tertbutylofenoli (3% kwas octowy, 10% etanol, 20% etanol, 50% etanol, 95% etanol)</b><br><b>4-tert-butylofenol (TBP) [CAS: 98-54-4]</b><br><b>Zakres: (0,010-1,0) mg/kg płynu modelowego</b><br><b>2,6-di-tert-butylo-4- metylofenol (BHT) [CAS: 128-37-0]</b><br><b>Zakres: (0,20-10) mg/kg płynu modelowego</b><br><b>2,6-di-tert-butylo-4- etylofenol (DTBEP) [CAS: 4130-42-1]</b><br><b>Zakres: (0,40-10) mg/kg płynu modelowego</b><br><br><b>Metoda wysokosprawnej chromatografii cieczowej z detekcją fluorescencyjną (HPLC-FLD)</b><br><br><b>Migracja specyficzna (z obliczeń)</b> | <b>PB-508 wyd. 2 z dn. 07.11.2023</b>                                 |
| <b>Materiały i wyroby z tworzyw sztucznych</b><br><b>Materiały i wyroby z papieru, tektury</b>                                                            | <b>Zawartość tertbutylofenoli (MPPO (Tenax))</b><br><b>4-tert-butylofenol (TBP) [CAS: 98-54-4]</b><br><b>Zakres: (0,0015- 0,17) mg/dm<sup>2</sup></b><br><b>2,6-di-tert-butylo-4- metylofenol (BHT) [CAS: 128-37-0]</b><br><b>Zakres: (0,030- 0,17) mg/dm<sup>2</sup></b><br><b>2,6-di-tert-butylo-4- etylofenol (DTBEP) [CAS: 4130-42-1]</b><br><b>Zakres: (0,060- 0,17) mg/dm<sup>2</sup></b><br><br><b>Metoda wysokosprawnej chromatografii cieczowej z detekcją fluorescencyjną (HPLC-FLD)</b><br><br><b>Migracja specyficzna (z obliczeń)</b>                                                       | <b>PB-508 wyd. 2 z dn. 07.11.2023</b>                                 |

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**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                                                                                                   | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Reference documents                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Materials and articles in contact with<br>food and other packaging materials<br>and articles <sup>1)</sup><br>Food simulants after migration <sup>1)</sup> | Determination of alkylphenols <sup>2), 3)</sup><br>High performance liquid chromatography method<br>with fluorescence detection<br>(HPLC-FLD)<br><br>Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                             | Standardized methods <sup>5)</sup><br>In-house test procedures <sup>4)</sup> |
| Plastic materials and articles<br>Food simulants after migration                                                                                           | Determination of butylphenols (3% acetic acid, 10%<br>ethanol, 20% ethanol, 50% ethanol, 95% ethanol)<br>4-tert-butylphenol (TBP) [CAS: 98-54-4]<br>Range: (0,010-1,0) mg/kg of food simulant<br>2,6-di-tert-butyl-p-cresol (BHT) [CAS: 128-37-0]<br>Range: (0,20-10) mg/kg of food simulant<br>2,6-di-tert-butyl-4-ethylphenol (DTBEP) [CAS: 4130-42-<br>1]<br>Range: (0,40-10) mg/kg of food simulant<br><br>High performance liquid chromatography method with<br>fluorescence detection<br>(HPLC-FLD)<br><br>Specific migration (calculated) | PB-508 ed.2 of 07.11.2023                                                    |
| Plastic materials and articles<br>Paper and cardboard materials and<br>articles                                                                            | Determination of butylphenols (MPPO (Tenax))<br>4-tert-butylphenol (TBP) [CAS: 98-54-4]<br>Range: (0,0015- 0,17) mg/dm <sup>2</sup><br>2,6-di-tert-butyl-p-cresol (BHT) [CAS: 128-37-0]<br>Range: (0,030- 0,17) mg/dm <sup>2</sup><br>2,6-di-tert-butyl-4-ethylphenol (DTBEP) [CAS: 4130-42-<br>1]<br>Range: (0,060- 0,17) mg/dm <sup>2</sup><br><br>High performance liquid chromatography method with<br>fluorescence detection<br>(HPLC-FLD)<br><br>Specific migration (calculated)                                                           | PB-508 ed.2 of 07.11.2023                                                    |

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**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                                                                                     | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                   | Dokumenty odniesienia                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <b>Materiały i wyroby do kontaktu z żywnością i inne materiały i wyroby opakowaniowe <sup>1)</sup></b><br><b>Płyny modelowe po migracji <sup>1)</sup></b> | <b>Migracja globalna do płynów modelowych <sup>2),3)</sup></b><br><b>Metoda wagowa</b>                                                                                                                                                                                                                                                                                                                                    | <b>Normy <sup>5)</sup></b><br><b>Procedury badawcze <sup>4)</sup></b> |
| Materiały i wyroby z tworzyw sztucznych<br>Płyny modelowe po migracji                                                                                     | Migracja globalna do płynów modelowych (woda, 3% kwas octowy, 10% etanol, 20% etanol, 50% etanol, 95% etanol, izooktan)<br>Zakres:<br>od 0,5 mg/dm <sup>2</sup> do 60,0 mg/dm <sup>2</sup><br>od 3,0 mg/kg do 360,0 mg/kg<br>Metoda wagowa                                                                                                                                                                                | PN-EN 1186-1:2005<br>PN-EN 1186-3:2023-01                             |
| Materiały i wyroby z tworzyw sztucznych<br>Materiały i wyroby z papieru i tektury                                                                         | Migracja globalna do płynów modelowych (MPPO (Tenax))<br>Zakres:<br>od 0,5 mg/dm <sup>2</sup> do 60,0 mg/dm <sup>2</sup><br>Metoda wagowa                                                                                                                                                                                                                                                                                 | PN-EN 1186-13:2007 (met. B)                                           |
| <b>Materiały i wyroby do kontaktu z żywnością i inne materiały i wyroby opakowaniowe <sup>1)</sup></b><br><b>Płyny modelowe po migracji <sup>1)</sup></b> | <b>Zawartość monomerów, dodatków zanieczyszczeń i substancji pomocniczych <sup>2), 3)</sup></b><br><b>Metoda wysokosprawnej chromatografii cieczowej z detekcją spektrofotometryczną (HPLC-UV/Vis), detekcją matrycą diodową (HPLC-DAD)</b>                                                                                                                                                                               | <b>Normy <sup>5)</sup></b><br><b>Procedury badawcze <sup>4)</sup></b> |
|                                                                                                                                                           | <b>Migracja specyficzna (z obliczeń)</b>                                                                                                                                                                                                                                                                                                                                                                                  |                                                                       |
| Materiały i wyroby z tworzyw sztucznych<br>Materiały i wyroby z gumy<br>Płyny modelowe po migracji                                                        | Zawartość kwasu tereftalowego i kwasu izoftalowego (woda, 3% kwas octowy, 10% etanol, 20% etanol, 50% etanol, 95% etanol, izooktan)<br>kwas tereftalowy [CAS: 100-21-0]      Zakres:<br>(0,5 – 15,0) mg/kg płynu modelowego<br>kwas izoftalowy [CAS: 121-91-5]      Zakres: (0,5 – 30,0) mg/kg płynu modelowego<br>Metoda wysokosprawnej chromatografii cieczowej z detekcją spektrofotometryczną (HPLC-UV/Vis, HPLC-DAD) | PN-EN 13130-2:2007                                                    |
|                                                                                                                                                           | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                                                                                                                                                         |                                                                       |

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**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                                                                                             | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                            | Reference documents                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Materials and articles in contact with food and other packaging materials and articles <sup>1)</sup><br>Food simulants after migration <sup>1)</sup> | Overall migration into food simulants <sup>2), 3)</sup><br>Gravimetric method                                                                                                                                                                                                                                                                                                                                                                                                                    | Standardized methods <sup>5)</sup><br>In-house test procedures <sup>4)</sup> |
| Plastic materials and articles<br>Food simulants after migration                                                                                     | Overall migration into food simulants (water, 3% acetic acid, 10% ethanol, 20% ethanol, 50% ethanol, 95% ethanol, isooctane)<br>Range:<br>from 0,5 mg/dm <sup>2</sup> to 60,0 mg/dm <sup>2</sup><br>from 3,0 mg/kg to 360,0 mg/kg<br>Gravimetric method                                                                                                                                                                                                                                          | PN-EN 1186-1:2005<br>PN-EN 1186-3:2023-01                                    |
| Plastic materials and articles<br>Paper and cardboard materials and articles                                                                         | Overall migration to food stimulants (MPPO (Tenax))<br>Zakres:<br>Range:<br>from 0,5 mg/dm <sup>2</sup> to 60,0 mg/dm <sup>2</sup><br>Gravimetric method                                                                                                                                                                                                                                                                                                                                         | PN-EN 1186-13:2007 (met. B)                                                  |
| Materials and articles in contact with food and other packaging materials and articles <sup>1)</sup><br>Food simulants after migration <sup>1)</sup> | Determination of monomers, additives, impurities and polymer production aids <sup>2), 3)</sup><br>High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)<br><br>Specific migration (calculated)                                                                                                                                                                                                                      | Standardized methods <sup>5)</sup><br>In-house test procedures <sup>4)</sup> |
| Plastic materials and articles<br>Rubber materials and articles<br>Food simulants after migration                                                    | Determination of terephthalic acid and isophthalic acid (water, 3% acetic acid, 10% ethanol, 20% ethanol, 50% ethanol, 95% ethanol, isooctane)<br>Terephthalic acid [CAS: 100-21-0] Range:<br>(0,5 – 15,0) mg/kg of food simulant<br>Isophthalic acid [CAS: 121-91-5]<br>Range: (0,5 – 30,0) mg/kg of food simulant<br>High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)<br><br>Specific migration (calculated) | PN-EN 13130-2:2007                                                           |

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| Przedmiot badań/wyrób                                                                              | Rodzaj działalności/badane cechy/metoda                                                                                                                                                  | Dokumenty odniesienia               |
|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Materiały i wyroby z tworzyw sztucznych<br>Materiały i wyroby z gumy<br>Płyny modelowe po migracji | Zawartość propionianu okta-decylo 3-(3,5-di-tert-butylo-4-hydroksyfenylu) [Irganox 1076, CAS 2082-79-3] (woda, 3% kwas octowy, 10% etanol, 20% etanol, 50% etanol, 95% etanol, izooktan) | PB-165/HPLC wyd. I z dn. 06.08.2012 |
|                                                                                                    | Zakres: (0,1 – 25) mg/kg płynu modelowego<br>Metoda wysokosprawnej chromatografii cieczowej z detekcją spektrofotometryczną (HPLC-UV/Vis, HPLC-DAD)                                      |                                     |
|                                                                                                    | Migracja specyficzna (z obliczeń)                                                                                                                                                        |                                     |

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|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| Plastic materials and articles<br>Rubber materials and articles<br>Food simulants after migration | Determination of octadecyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate [Irganox 1076, CAS 2082-79-3] (water, 3% acetic acid, 10% ethanol, 20% ethanol, 50% ethanol, 95% ethanol, isooctane)<br>Range: (0,1 – 25) mg/kg of food simulant<br>High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD) | PB-165/HPLC ed. I of 06.08.2012 |
|                                                                                                   | Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                   |                                 |

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| Przedmiot badań/wyrób                                                                                                                                     | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                    | Dokumenty odniesienia                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <b>Materiały i wyroby do kontaktu z żywnością i inne materiały i wyroby opakowaniowe <sup>1)</sup></b><br><b>Płyny modelowe po migracji <sup>1)</sup></b> | <b>Zawartość lotnych i półlotnych monomerów, dodatków, zanieczyszczeń i substancji pomocniczych <sup>2), 3)</sup></b><br><b>Metoda chromatografii gazowej z analizą fazy nadpowierzchniowej i detekcją płomieniowo-jonizacyjną (HS-GC-FID) oraz z detekcją płomieniowo-jonizacyjną (GC-FID)</b>                                                            | <b>Normy <sup>5)</sup></b><br><b>Procedury badawcze <sup>4)</sup></b> |
|                                                                                                                                                           | <b>Migracja specyficzna (z obliczeń)</b>                                                                                                                                                                                                                                                                                                                   |                                                                       |
| <b>Materiały i wyroby z tworzyw sztucznych</b><br><b>Płyny modelowe po migracji</b>                                                                       | <b>Zawartość 1,3-butadienu [CAS: 106-99-0] (woda, 3% kwas octowy, oliwa z oliwek)</b><br><b>Zakres: (0,01 – 0,5) mg/kg płynu modelowego</b><br><b>Metoda chromatografii gazowej z detekcją płomieniowo-jonizacyjną (HS-GC-FID)</b>                                                                                                                         | CEN/TS 13130-15:2005                                                  |
|                                                                                                                                                           | <b>Migracja specyficzna (z obliczeń)</b>                                                                                                                                                                                                                                                                                                                   |                                                                       |
|                                                                                                                                                           | <b>Zawartość glikoli(woda, 3% kwas octowy, 10% etanol, 20% etanol, 50% etanol, 95% etanol, izooktan, oliwa z oliwek)</b><br><b>glikol monoetylenowy [CAS: 107-21-1]</b><br><b>glikol dietylenowy [CAS: 111-46-6]</b><br><b>Zakres: (3 – 60) mg/kg płynu modelowego</b><br><b>Metoda chromatografii gazowej z detekcją płomieniowo-jonizacyjną (GC-FID)</b> | PN-EN 13130-7:2008                                                    |
|                                                                                                                                                           | <b>Migracja specyficzna (z obliczeń)</b>                                                                                                                                                                                                                                                                                                                   |                                                                       |
|                                                                                                                                                           | <b>Zawartość styrenu [CAS: 100-42-5] (woda, 3% kwas octowy, 10% etanol, 20% etanol, 50% etanol)</b><br><b>Zakres: (0,1 – 5) mg/kg płynu modelowego</b><br><b>Metoda chromatografii gazowej z detekcją płomieniowo-jonizacyjną (HS-GC-FID)</b>                                                                                                              | PB-163/GC wyd. I z dn. 10.05.2012                                     |
|                                                                                                                                                           | <b>Migracja specyficzna (z obliczeń)</b>                                                                                                                                                                                                                                                                                                                   |                                                                       |
|                                                                                                                                                           | <b>Zawartość kaprolaktamu [CAS: 105-60-2] (woda, 3% kwas octowy, 10% etanol, 20% etanol, 50% etanol, 95% etanol, izooktan, oliwa z oliwek)</b><br><b>Zakres: (1,5 – 30) mg/kg płynu modelowego</b><br><b>Metoda chromatografii gazowej z detekcją płomieniowo-jonizacyjną (GC-FID)</b>                                                                     | CEN/TS 13130-16:2005                                                  |
|                                                                                                                                                           | <b>Migracja specyficzna (z obliczeń)</b>                                                                                                                                                                                                                                                                                                                   |                                                                       |

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| Material/ product tested                                                                                                                             | Type of activity/ parameter/ characteristic tested                                                                                                                                                                                                                                                                   | Reference documents                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Materials and articles in contact with food and other packaging materials and articles <sup>1)</sup><br>Food simulants after migration <sup>1)</sup> | Determination of volatile and semivolatile monomers, additives, impurities and polymer production aids <sup>2), 3)</sup><br>Headspace gas chromatography method with flame ionization detection (HS-GC-FID), Gas chromatography method with flame ionization detection (GC-FID)                                      | Standardized methods <sup>5)</sup><br>In-house test procedures <sup>4)</sup> |
|                                                                                                                                                      | Specific migration (calculated)                                                                                                                                                                                                                                                                                      |                                                                              |
| Plastic materials and articles<br>Food simulants after migration                                                                                     | Determination of 1,3-butadiene [CAS: 106-99-0] (water, 3% acetic acid, olive oil)<br>Range: (0,01 – 0,5) mg/kg of food simulant<br>Gas chromatography method with flame ionization detection (HS-GC-FID)                                                                                                             | CEN/TS 13130-15:2005                                                         |
|                                                                                                                                                      | Specific migration (calculated)                                                                                                                                                                                                                                                                                      |                                                                              |
|                                                                                                                                                      | Determination of glycols (water, 3% acetic acid, 10% ethanol, 20% ethanol, 50% ethanol, 95% ethanol, isooctane, olive oil)<br>monoethylene glycol [CAS: 107-21-1]<br>diethylene glycol CAS: 107-21-1<br>Range: (3 – 60) mg/kg of food simulant<br>Gas chromatography method with flame ionization detection (GC-FID) | PN-EN 13130-7:2008                                                           |
|                                                                                                                                                      | Specific migration (calculated)                                                                                                                                                                                                                                                                                      |                                                                              |
|                                                                                                                                                      | Determination of styrene [CAS: 100-42-5] (water, 3% acetic acid, 10% ethanol, 20% ethanol, 50% ethanol)<br>Range: (0,1 - 5) mg/kg of food simulant<br>Gas chromatography method with flame ionization detection (HS-GC-FID)                                                                                          | PB-163/GC ed. I of 10.05.2012                                                |
|                                                                                                                                                      | Specific migration (calculated)                                                                                                                                                                                                                                                                                      |                                                                              |
|                                                                                                                                                      | Determination of caprolactam [CAS: 105-60-2] (water, 3% acetic acid, 10% ethanol, 20% ethanol, 50% ethanol, 95% ethanol, isooctane, olive oil)<br>Range: (1,5 – 30) mg/kg of food simulant<br>Gas chromatography method with flame ionization detection (GC-FID)                                                     | CEN/TS 13130-16:2005                                                         |
|                                                                                                                                                      | Specific migration (calculated)                                                                                                                                                                                                                                                                                      |                                                                              |

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| <b>Przedmiot badań/wyrób</b>                                          | <b>Rodzaj działalności/badane cechy/metoda</b>                                                                                                                                                                                                                                   | <b>Dokumenty odniesienia</b>   |
|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Materiały i wyroby z tworzyw sztucznych<br>Płyny modelowe po migracji | Zawartość 1-heksenu [CAS: 592-41-6] (woda, 3% kwas octowy, 10% etanol, 20% etanol, 50% etanol, 95% etanol, oliwa z oliwek)<br>Zakres: (2 – 40) mg/kg płynu modelowego<br>Metoda chromatografii gazowej z detekcją płomieniowo-jonizacyjną (HS-GC-FID)                            | PB-291/GC wyd. II z 21.05.2018 |
|                                                                       | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                |                                |
| Materiały i wyroby z tworzyw sztucznych<br>Płyny modelowe po migracji | Zawartość 1-oktenu [CAS: 111-66-0] (woda, 3% kwas octowy, 10% etanol, 20% etanol, 50% etanol, 95% etanol, oliwa z oliwek)<br>Zakres: (2 – 40) mg/kg płynu modelowego<br>Metoda chromatografii gazowej z detekcją płomieniowo-jonizacyjną (HS-GC-FID)                             | PB-291/GC wyd. II z 21.05.2018 |
|                                                                       | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                |                                |
|                                                                       | Zawartość etylenodiaminy (EDA) [CAS: 107-15-3] (woda, 3% kwas octowy, 20% etanol, 95% etanol, izooktan)<br>Zakres: (2,0 - 25) mg/kg płynu modelowego<br>Metoda chromatografii gazowej z detekcją płomieniowo-jonizacyjną (GC-FID)                                                | DD CEN/TS 13130-21:2005        |
|                                                                       | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                |                                |
|                                                                       | Zawartość heksametylenodiaminy (HMDA) [CAS: 124-09-4] (woda, 3% kwas octowy, 20% etanol, 95% etanol, izooktan)<br>Zakres: (1,0 – 6,0) mg/kg płynu modelowego<br>Metoda chromatografii gazowej z detekcją płomieniowo-jonizacyjną (GC-FID)                                        | DD CEN/TS 13130-21:2005        |
|                                                                       | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                |                                |
|                                                                       | Zawartość 1,1,1-trimetylopropanu (TMP) [CAS: 77-99-6] (woda, 3% kwas octowy, 10% etanol, 20% etanol, 50% etanol, 95% etanol, izooktan, oliwa z oliwek)<br>Zakres: (0,6 - 12) mg/kg płynu modelowego<br>Metoda chromatografii gazowej z detekcją płomieniowo-jonizacyjną (GC-FID) | DD CEN/TS 13130-28:2005        |
|                                                                       | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                |                                |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| <b>Material/ product tested</b>                                  | <b>Type of activity/ parameter/ characteristic tested</b>                                                                                                                                                                                                                          | <b>Reference documents</b>     |
|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Plastic materials and articles<br>Food simulants after migration | Determination of 1-hexene [CAS: 592-41-6] (water, 3% acetic acid, 10% ethanol, 20% ethanol, 50% ethanol, 95% ethanol, isooctane, olive oil)<br>Range: (2 – 40) mg/kg of food simulant<br>Gas chromatography method with flame ionization detection (HS-GC-FID)                     | PB-291/GC ed. II of 21.05.2018 |
|                                                                  | Specific migration (calculated)                                                                                                                                                                                                                                                    |                                |
| Plastic materials and articles<br>Food simulants after migration | Determination of 1-octene [CAS: 111-66-0] (water, 3% acetic acid, 10% ethanol, 20% ethanol, 50% ethanol, 95% ethanol, isooctane, olive oil)<br>Range: (2 – 40) mg/kg of food simulant<br>Gas chromatography method with flame ionization detection (HS-GC-FID)                     | PB-291/GC ed. II of 21.05.2018 |
|                                                                  | Specific migration (calculated)                                                                                                                                                                                                                                                    |                                |
|                                                                  | Determination of ethylenediamine (EDA) [CAS: 107-15-3] (water, 3% acetic acid, 20% ethanol, 95% ethanol, isooctane)<br>Range: (2,0 - 25) mg/kg of food simulant<br>Gas chromatography method with flame ionization detection (GC-FID)                                              | DD CEN/TS 13130-21:2005        |
|                                                                  | Specific migration (calculated)                                                                                                                                                                                                                                                    |                                |
|                                                                  | Determination of hexamethylenediamine (HMDA) [CAS: 124-09-4] (water, 3% acetic acid, 20% ethanol, 95% ethanol, isooctane)<br>Range: (1,0 – 6,0) mg/kg of food simulant<br>Gas chromatography method with flame ionization detection (GC-FID)                                       | DD CEN/TS 13130-21:2005        |
|                                                                  | Specific migration (calculated)                                                                                                                                                                                                                                                    |                                |
|                                                                  | Determination of 1,1,1-trimethylolpropane (TMP) [CAS: 77-99-6] (water, 3% acetic acid, 10% ethanol, 20% ethanol, 50% ethanol, 95% ethanol, isooctane, olive oil)<br>Range: (0,6 - 12) mg/kg of food simulant<br>Gas chromatography method with flame ionization detection (GC-FID) | DD CEN/TS 13130-28:2005        |
|                                                                  | Specific migration (calculated)                                                                                                                                                                                                                                                    |                                |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                                                             | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Dokumenty odniesienia                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <b>Materiały i wyroby z tworzyw sztucznych i gumy <sup>1)</sup></b><br><b>Materiały i wyroby z papieru, tektury <sup>1)</sup></b> | <b>Zawartość wielopierścieniowych węglowodorów aromatycznych i polichlorowanych bifenyli <sup>2), 3)</sup></b><br><b>Metoda chromatografii gazowej z detekcją spektrometrią mas (GC-MS)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Normy <sup>5)</sup></b><br><b>Procedury badawcze <sup>4)</sup></b> |
| Materiały i wyroby z papieru i tektury                                                                                            | Zawartość wielopierścieniowych węglowodorów aromatycznych:<br>Zakres:<br>Naftalen [CAS: 91-20-3]<br>Acenaftylen [CAS: 208-96-8]<br>Acenaftenu [CAS: 83-32-9]<br>Fluoren [CAS: 86-73-7]<br>Fenantren [CAS: 85-01-8]<br>Antracen [CAS: 120-12-7]<br>Fluoranten [CAS: 206-44-0]<br>Piren [CAS: 129-00-0]<br>Chryzen, [CAS: 218-01-9]<br>Benzo(a)antracen [CAS: 56-55-3]<br>Benzo(b)fluoranten [CAS: 205-99-2]<br>Benzo(k)fluoranten [CAS: 207-08-9]<br>Benzo(j)fluoranten [CAS: 205-82-3]<br>Benzo(a)piren [CAS: 50-32-8]<br>Benzo(e)piren [CAS: 192-97-2]<br>Indeno(1,2,3-cd)piren [CAS: 193-39-5]<br>Dibenzo(a,h)antracen [CAS: 53-70-3]<br>Benzo(ghi)perylene [CAS: 191-24-2]<br><br>Zakres: (0,0016 – 0,0048) mg/dm <sup>2</sup><br><br>Metoda chromatografii gazowej z detekcją spektrometrią mas (GC-MS) | PB-253/GC wyd. I z dn. 03.02.2014                                     |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                                                        | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Reference documents                                                          |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Plastic and rubber materials and articles <sup>1)</sup><br>Paper and board materials and articles <sup>1)</sup> | Determination of polycyclic aromatic hydrocarbons (PAH) and polychlorinated biphenyls (PCB) <sup>2), 3)</sup><br>Gas chromatography method with mass spectrometry (GC-MS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Standardized methods <sup>5)</sup><br>In-house test procedures <sup>4)</sup> |
| Paper and board materials and articles                                                                          | Determination of polycyclic aromatic hydrocarbons (PAH)<br>Range:<br>Naphthalene [CAS: 91-20-3]<br>Acenaphthylene [CAS: 208-96-8]<br>Acenaphthene [CAS: 83-32-9]<br>Fluorene [CAS: 86-73-7]<br>Phenanthrene [CAS: 85-01-8]<br>Anthracene [CAS: 120-12-7]<br>Fluoranthene [CAS: 206-44-0]<br>Pyrene [CAS: 129-00-0]<br>Chrysene [CAS: 218-01-9]<br>Benzo(a)anthracene [CAS: 56-55-3]<br>Benzo(b)fluoranthene [CAS: 205-99-2]<br>Benzo(k)fluoranthene [CAS: 207-08-9]<br>Benzo(j)fluoranthene [CAS: 205-82-3]<br>Benzo(a)pyrene [CAS: 50-32-8]<br>Benzo(e)pyrene [CAS: 192-97-2]<br>Indeno(1,2,3-cd)pyrene [CAS: 193-39-5]<br>Dibenzo(a,h)anthracene [CAS: 53-70-3]<br>Benzo(ghi)perylene [CAS: 191-24-2]<br><br>Range: (0,0016 – 0,0048) mg/dm <sup>2</sup><br><br>Gas chromatography method with mass spectrometry (GC-MS) | PB-253/GC ed. I of 03.02.2014                                                |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| <b>Przedmiot badań/wyrób</b>                                                    | <b>Rodzaj działalności/badane cechy/metoda</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Dokumenty odniesienia</b>              |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| <p>Materiały i wyroby z tworzyw sztucznych</p> <p>Materiały i wyroby z gumy</p> | <p>Zawartość wielopierścieniowych węglowodorów aromatycznych (WWA)</p> <p>Zakres:</p> <p>Naftalen [CAS: 91-20-3]</p> <p>Acenaftylen [CAS: 208-96-8]</p> <p>Acenaften [CAS: 83-32-9]</p> <p>Fluoren [CAS: 86-73-7]</p> <p>Fenantren [CAS: 85-01-8]</p> <p>Antracen [CAS: 120-12-7]</p> <p>Fluoranten [CAS: 206-44-0]</p> <p>Piren [CAS: 129-00-0]</p> <p>Chryzen [CAS: 218-01-9]</p> <p>Benzo(a)antracen [CAS: 56-55-3]</p> <p>Benzo(b)fluoranten [CAS: 205-99-2]</p> <p>Benzo(k)fluoranten [CAS: 207-08-9]</p> <p>Benzo(j)fluoranten [CAS: 205-82-3]</p> <p>Benzo(a)piren [CAS: 50-32-8]</p> <p>Benzo(e)piren [CAS: 192-97-2]</p> <p>Indeno(1,2,3-cd)piren [CAS: 193-39-5]</p> <p>Dibenzo(a,h)antracen [CAS: 53-70-3]</p> <p>Benzo(ghi)perylene [CAS: 191-24-2]</p> <p>Zakres: (0,1 – 5,0) mg/kg</p> <p>Metoda chromatografii gazowej z detekcją spektrometrią mas (GC-MS)</p> | <p>PB-235/GC wyd. II z dn. 13.01.2014</p> |
| <p>Materiały i wyroby z papieru i tektury</p>                                   | <p>Zawartość polichlorowanych bifenyli (PCB)</p> <p>PCB 18 [CAS: 37680-65-2]</p> <p>PCB 28 [CAS: 7012-37-5]</p> <p>PCB 52 [CAS: 35693-99-3]</p> <p>PCB 101 [CAS: 37680-73-2]</p> <p>PCB 138 [CAS: 35065-28-2]</p> <p>PCB 153 [CAS: 35065-27-1]</p> <p>PCB 180 [CAS: 35065-29-3]</p> <p>Zakres: (0,05 – 0,4) mg/kg</p> <p>Metoda chromatografii gazowej z detekcją spektrometrią mas (GC-MS)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <p>PN-EN ISO 15318:2002</p>               |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

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| <b>Material/ product tested</b>                                 | <b>Type of activity/ parameter/ characteristic tested</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Reference documents</b>     |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Plastic materials and articles<br>Rubber materials and articles | <p>Determination of polycyclic aromatic hydrocarbons (PAH)</p> <p>Range:</p> <p>Naphthalene [CAS: 91-20-3]</p> <p>Acenaphthylene [CAS: 208-96-8]</p> <p>Acenaphthene [CAS: 83-32-9]</p> <p>Fluorene [CAS: 86-73-7]</p> <p>Phenanthrene [CAS: 85-01-8]</p> <p>Anthracene [CAS: 120-12-7]</p> <p>Fluoranthene [CAS: 206-44-0]</p> <p>Pyrene [CAS: 129-00-0]</p> <p>Chrysene [CAS: 218-01-9]</p> <p>Benzo(a)anthracene [CAS: 56-55-3]</p> <p>Benzo(b)fluoranthene [CAS: 205-99-2]</p> <p>Benzo(k)fluoranthene [CAS: 207-08-9]</p> <p>Benzo(j)fluoranthene [CAS: 205-82-3]</p> <p>Benzo(a)pyrene [CAS: 50-32-8]</p> <p>Benzo(e)pyrene [CAS: 192-97-2]</p> <p>Indeno(1,2,3,-cd)pyrene [CAS: 193-39-5]</p> <p>Dibenzo(a,h)anthracene [CAS: 53-70-3]</p> <p>Benzo(ghi)perylene [CAS: 191-24-2]</p> <p>Range: (0,1 – 5,0) mg/kg</p> <p>Gas chromatography method with mass spectrometry (GC-MS)</p> | PB-235/GC ed. II of 13.01.2014 |
| Paper and cardboard materials and articles                      | <p>Determination of polychlorinated biphenyls (PCB)</p> <p>Range:</p> <p>PCB 18 [CAS: 37680-65-2]</p> <p>PCB 28 [CAS: 7012-37-5]</p> <p>PCB 52 [CAS: 35693-99-3]</p> <p>PCB 101 [CAS: 37680-73-2]</p> <p>PCB 138 [CAS: 35065-28-2]</p> <p>PCB 153 [CAS: 35065-27-1]</p> <p>PCB 180 [CAS: 35065-29-3]</p> <p>Range: (0,05 – 0,4) mg/kg</p> <p>Gas chromatography method with mass spectrometry (GC-MS)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | PN-EN ISO 15318:2002           |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                                                                                             | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Dokumenty odniesienia                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <b>Materiały i wyroby z tworzyw sztucznych i gumy <sup>1)</sup></b><br><b>Materiały i wyroby z papieru, tektury <sup>1)</sup></b><br><b>Zabawki <sup>1)</sup></b> | <b>Zawartość monomerów, dodatków, zanieczyszczeń i substancji pomocniczych <sup>2),3)</sup></b><br><b>Metoda chromatografii gazowej z detekcją tandemową spektrometrią mas (GC-MS/MS)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Normy <sup>5)</sup></b><br><b>Procedury badawcze <sup>4)</sup></b> |
| <b>Materiały i wyroby z tworzyw sztucznych i gumy</b><br><b>Materiały i wyroby z papieru i tektury</b><br><b>Zabawki</b>                                          | Zawartość plastifikatorów<br>Bezwodnik ftalowy (PA) [CAS: 85-44-9]<br>Ftalan dimetylu (DMP) [CAS: 131-11-3]<br>Ftalan dietylu (DEP) [CAS: 84-66-2]<br>Ftalan etyloowo-izobutyloowy [CAS: 94491-96-0]<br>Ftalan dialliilu (DAP) [CAS: 131-17-9]<br>Adypinian dibutyli [CAS: 105-99-7]<br>Ftalan dipropylu (DPP2) [CAS: 131-16-8]<br>Ftalan di-izo-butyli (DIBP) [CAS: 84-69-5]<br>Ftalan dibutyli (DBP) [CAS: 84-72-2]<br>Ftalan bis(2-metoksyetyli) (DMEP) [CAS: 117-82-8]<br>Ftalan di-izo-amylu (DIPP) [CAS: 605-50-5]<br>Ftalan diizopentylu (PIPP) [CAS: 84777-06-0]<br>N-pentyl-isopentylphtalate (PIPP(2)) [CAS: 776297-69-9]<br>Ftalan di-2-etoksyetyli (DEEP) [CAS: 605-54-9]<br>Ftalan diamylu (DPP) [CAS: 131-18-0]<br>Cytrynian tri-n-butyloacetyli (ATBC) [CAS: 77-90-7]<br>Ftalan di-izo-heksyli (DMPP) [CAS: 71850-09-4]<br>Ftalan di-n-heksyli (DNHP) [CAS: 84-75-3]<br>Ftalan butylooktyli (BOP) [CAS: 84-78-6]<br>Adypinian bis(2-etyloheksyli) (DEHA) [CAS: 103-23-1]<br>Ftalan benzyllobutyli (BBP) [CAS: 85-68-7]<br>Ftalan di-2-etyloheksyli (DEHP) [CAS: 117-81-7]<br>Azelainian di-n-heksyli (DnHA) [CAS: 109-31-9]<br>Ftalan dicykoheksyli (DCHP) [CAS: 84-61-7]<br>Ftalan di-n-oktyli (DNOP) [CAS: 117-84-0]<br>Tereftalan dioktyli (DOTP) [CAS: 6422-86-2]<br>Ftalan dibenzylu (DBP2) [CAS: 523-31-9]<br>Ftalan bis (2-propyloheptyli) (DPHP) [CAS: 53306-54-0]<br>Ftalan dinonyli (DNP) [CAS: 84-76-4]<br>Ftalan heksylo-2-etyloheksyli (HEHP) [CAS: 75673-16-4]<br>Ftalan diundecyli (DuDP) [CAS: 3648-20-2]<br>Ftalan bis(4-metylo-2-pentylu) (DMPP) [CAS: 84-63-9]<br>Ftalan difenyli (DPhP) [CAS: 84-62-8]<br>Kwas 1,2-benzenodikarboksylowy, rozgałęziony ester di-C7-11 alkilowy i liniowy ester alkilowy (DHNUP) [CAS: 68515-42-4]<br>Kwas 1,2-benzenodikarboksylowy, mieszane diestry decylowe, heksylowe i oktylowe [CAS: 68648-93-1]<br>Kwas 1,2-benzenodikarboksylowy, estry di-C6-10-alkilowe [CAS: 68515-51-5]<br>Ftalan diizooktyli (DiOP) [CAS: 27554-26-3]<br><br>Zakres: (0,001- 1,0) %<br>Metoda chromatografii gazowej z detekcją tandemową spektrometrią mas (GC-MS/MS) | PB-146 wyd. 5 z dn. 22.07.2024                                        |

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**Testing Laboratory AB 079**

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**ul. Chwaszczyńska 180, 81-571 Gdynia**

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| Material/ product tested                                                                                                                  | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Reference documents                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Plastic and rubber materials and articles <sup>1)</sup><br>Paper and cardboard materials and articles <sup>1)</sup><br>Toys <sup>1)</sup> | Determination of monomers, additives, impurities and polymer production aids <sup>2), 3)</sup><br>Gas chromatography method with tandem mass spectrometry (GC-MS/MS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Standardized methods <sup>5)</sup><br>In-house test procedures <sup>4)</sup> |
| Plastic and rubber materials and articles<br>Paper and cardboard materials and articles<br>Toys                                           | Determination of plasticizers<br>Phthalic anhydride (PA) [CAS: 85-44-9]<br>Dimethyl phthalate (DMP) [CAS: 131-11-3]<br>Phthalic acid, bis-ethyl ester (DEP) [CAS: 84-66-2]<br>Ethyl Isobutyl phthalate [CAS: 94491-96-0]<br>Diallyl phthalate (DAP) [CAS: 131-17-9]<br>Dibutyl Adipate [CAS: 105-99-7]<br>Di-n-propyl phthalate (DPP2) [CAS: 131-16-8]<br>Diisobutyl phthalate (DIBP) [CAS: 84-69-5]<br>Dibutyl phthalate (DBP) [CAS: 84-74-2]<br>bis(2-Methoxyethyl) phthalate (DMEP) [CAS: 117-82-8]<br>Diisopentyl phthalate (DIPP) [CAS: 605-50-5]<br>Pentylisopentyl phthalate (PIPP) [CAS: 84777-06-0]<br>Phthalic acid, n-pentyl-isopentyl ester (PIPP(2)) [CAS: 776297-69-9]<br>bis(2-Ethoxyethyl)phthalate (DEEP) [CAS: 605-54-9]<br>Diamyl phthalate (DPP) [CAS: 131-18-0]<br>Tributyl 2-acetycitrate (ATBC) [CAS: 77-90-7]<br>bis(4-Methylpentyl)phthalate (DMPP) [CAS: 71850-09-4]<br>Dihexyl phthalate (DNHP) [CAS: 84-75-3]<br>Butyl octyl phthalate (BOP) [CAS: 84-78-6]<br>bis(2-Ethylhexyl)adipate (DEHA) [CAS: 103-23-1]<br>Benzyl butyl phthalate (BBP) [CAS: 85-68-7]<br>Bis(2-Ethylhexyl) phthalate (DEHP) [CAS: 117-81-7]<br>Di-n-hexyl azelate (DnHA) [CAS: 109-31-9]<br>Dicyclohexyl phthalate(DCHP) [CAS: 84-61-7]<br>Di-n-octyl phthalate (DNOP) [CAS: 117-84-0]<br>bis(2-Ethylhexyl) terephthalate (DOTP) [CAS: 6422-86-2]<br>Dibenzyl phthalate (DBP2) [CAS: 523-31-9]<br>Bis(2- propylheptyl) phthalate (DPHP) [CAS: 53306-54-0]<br>Dinonyl phthalate (DNP) [CAS: 84-76-4]<br>Heksyl 2-ethylhexyl phthalate (HEHP) [CAS: 75673-16-4]<br>Phthalic acid bis n-undecyl ester (DuDP) [CAS: 3648-20-2]<br>bis(4-Methyl-2-pentyl)phthalate (DMPP) [CAS: 84-63-9]<br>Diphenyl phthalate (DPhP) [CAS: 84-62-8]<br>1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP) [CAS: 68515-42-4]<br>1,2-Benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters [CAS: 68648-93-1]<br>1,2-Benzenedicarboxylic acid, di-C6-10- alkyl esters [CAS: 68515-51-5]<br>1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich (DiOP) [CAS: 27554-26-3]<br><br>Range: (0,001- 1,0) %<br>Gas chromatography method with tandem mass spectrometry (GC-MS/MS) | PB-146 ed. 5 of 22.07.2024                                                   |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                                | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Dokumenty odniesienia          |
|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Materiały i wyroby z tworzyw sztucznych i gumy<br>Materiały i wyroby z papieru i tekstury<br>Zabawki | Zawartość plastyfikatorów<br>Kwas 1,2-benzenodikarboksylowy, di-C6-8-rozgałęziony ester alkilowy, bogaty w C7 (DIHP) [CAS: 71888-89-6]<br>Ftalan di-izo-nonylu (DINP) [CAS: 28553-12-0; 68515-48-0]<br>Ftalan di-izo-decyłu (DIDP) [CAS: 26761-40-0; 68515-49-1]<br>Kwas 1,2-benzenodikarboksylowy, ester diheksylowy, rozgałęziony i liniowy (DHP) [CAS: 68515-50-4]<br>Ftalan bis(6-metyloheptylu) (DIUP) [CAS: 96507-86-7]<br>Zakres: (0,002- 1,0) %<br><br>Ester diisononylowy kwasu 1,2-cykloheksanodikarboksylowego (DINCH) [CAS: 166412-78-8]<br>Zakres: (0,02- 1,0) %<br><br>Metoda chromatografii gazowej z detekcją tandemową spektrometrią mas (GC-MS/MS) | PB-146 wyd. 5 z dn. 22.07.2024 |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                                        | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Reference documents        |
|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Plastic and rubber materials and articles<br>Paper and cardboard materials and articles<br>Toys | <p>Determination of plasticizers</p> <p>1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP) [CAS: 71888-89-6]</p> <p>Di-"isononyl" phthalate (DINP) [CAS: 28553-12-0; 68515-48-0]</p> <p>Di-"isodecyl" phthalate (DIDP) [CAS: 26761-40-0; 68515-49-1]</p> <p>1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear (DHP) [CAS: 68515-50-4]</p> <p>Bis(6-methylheptyl) Phthalate (DIUP) [CAS: 96507-86-7]</p> <p>Range: (0,002- 1,0) %</p><br><p>1,2 Cyclohexanedicarboxylic acid, bis-isononyl (DINCH) [CAS: 166412-78-8]</p> <p>Range: (0,02- 1,0) %</p><br><p>Gas chromatography method with tandem mass spectrometry (GC-MS/MS)</p> | PB-146 ed. 5 of 22.07.2024 |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                                                                                               | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Dokumenty odniesienia                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <b>Materiały i wyroby z tworzyw sztucznych i gumy <sup>1)</sup></b><br><b>Materiały i wyroby z papieru, tektury <sup>1)</sup></b><br><b>Świece, parafiny, woski</b> | <b>Zawartość lotnych związków organicznych i rozpuszczalników organicznych <sup>2), 3)</sup></b><br><b>Metoda chromatografii gazowej z analizą fazy nadpowierzchniowej, detekcją płomieniowo-jonizacyjną (HS-GC-FID) oraz spektrometrią mas (HS-GC-MS)</b>                                                                                                                                                                                                                                 | <b>Normy <sup>5)</sup></b><br><b>Procedury badawcze <sup>4)</sup></b> |
| <b>Materiały i wyroby z politereftalanu etylenu (PET, rPET)</b>                                                                                                     | <b>Zawartość lotnych związków organicznych (VOC)</b><br><b>aldehyd octowy [CAS: 75-07-0]</b><br><b>octan etylu [CAS: 141-78-6]</b><br><b>benzen [CAS: 71-43-2]</b><br><b>heksanal [CAS: 66-25-1]</b><br><b>d-limonen [CAS: 5989-27-5]</b><br><b>2-metyl-1,3-dioksolan [CAS: 497-26-7]</b><br><b>Zakres: 0,0300-20 mg/kg</b><br><br><b>Metoda chromatografii gazowej z analizą fazy nadpowierzchniowej i detekcją płomieniowo-jonizacyjną (HS-GC-FID) oraz spektrometrią mas (HS-GC-MS)</b> | <b>PB-500 wyd. 3 z dn. 14.08.2025</b>                                 |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                                                                                                         | Type of activity/ parameter/ characteristic tested                                                                                                                                                                                                                                                                                                                                                          | Reference documents                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| <b>Plastic and rubber materials and articles <sup>1)</sup></b><br><b>Paper and board materials and articles <sup>1)</sup></b><br><b>Candles, paraffin, waxes</b> | <b>Determination of volatile organic compounds and organic solvents <sup>2), 3)</sup></b><br><b>Headspace gas chromatography method with flame ionization detection (HS-GC-FID), headspace gas chromatography method with mass spectrometry detection (HS-GC-MS)</b>                                                                                                                                        | <b>Standardized methods <sup>5)</sup></b><br><b>In-house test procedures <sup>4)</sup></b> |
| Polyethylene terephthalate (PET, rPET) materials and articles                                                                                                    | "Determination of volatile organic compounds (VOC)<br>acetaldehyde [CAS: 75-07-0]<br>ethyl acetate [CAS: 141-78-6]<br>benzene [CAS: 71-43-2]<br>hexanal [CAS:66-25-1]<br>d-limonene [CAS: 5989-27-5]<br>2-methyl-1,3-dioxolane [CAS: 497-26-7]<br>Range: 0,0300-20 mg/kg<br><br>Headspace gas chromatography method with flame ionisation detection (HS-GC-MS) (HS-GC-FID) and mass spectrometry (HS-GC-MS) | PB-500 ed. 3 of 14.08.2025                                                                 |

### Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego

Laboratorium Badawcze AB 079

## Pracownia Badań Produktów Nieżywnościowych i Opakowań

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                            | Rodzaj działalności/badane<br>cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Dokumenty odniesienia          |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Materiały i wyroby z papieru, tektury<br>Materiały i wyroby z tworzyw sztucznych | Zawartość lotnych związków organicznych (VOC)<br>1-metoksy-2-propanol [CAS: 107-98-2]<br>1-propanol [CAS:71-23-8]<br>2-butanol [CAS: 78-92-2]<br>2-etoksyetanol [CAS: 110-80-5]<br>2-metylo-1-propanol [CAS:78-83-1]<br>aceton [CAS: 67-64-1]<br>acetyloaceton [CAS: 123-54-6]<br>butanol [CAS: 71-36-3]<br>cykloheksan [CAS: 110-82-7]<br>cykloheksanon [CAS: 108-94-1]<br>dichlorometan [CAS: 75-09-2]<br>etanol [CAS: 64-17-5]<br>etoksypropanol [CAS: 1569-02-4]<br>etylobenzen [CAS: 100-41-4]<br>furan [CAS:110-00-9]<br>heksan [CAS: 110-54-3]<br>heptan [CAS: 142-82-5]<br>izoforon [CAS: 78-59-1]<br>izopropanol [CAS: 67-63-0]<br>metanol [CAS: 67-56-1]<br>metyloetyloketon [CAS: 78-93-3]<br>metyloizobutyloketon [CAS: 108-10-1]<br>m,p-ksylen [CAS:108-38-3]<br>n-propanol [CAS: 67-63-0]<br>octan 1-metoksy-2-propylu [CAS:108-65-6]<br>octan 2-butoksyetylu [CAS: 112-07-2]<br>octan 2-etoksyetylu [CAS: 111-15-9]<br>octan 2-metoksyetyleny [CAS:110-49-6]<br>octan etoksypropylu [CAS: 54839-24-6]<br>octan etylu [CAS: 141-78-6]<br>octan izobutylu [CAS: 110-19-0]<br>octan izopropylu [CAS: 108-21-4]<br>octan metylu [CAS: 79-20-9]<br>octan n-butylu [CAS: 123-86-4]<br>octan propylu [CAS: 109-60-4]<br>oktan [CAS: 111-65-9]<br>o-ksylen [CAS:95-47-6]<br>styren [CAS: 100-42-5]<br>tetrahydrofuran [CAS: 109-99-9]<br>toluen [CAS: 108-88-3]<br>Alfa-metylostyren [CAS: 98-83-9]<br>1,3-dioksolan [CAS: 646-06-0]<br>Zakres (0,1 – 20) mg/m <sup>2</sup><br>(1 – 200) mg/kg<br>Benzen [CAS: 71-43-2]<br>2-metylo-1,3-dioksolan [CAS: 497-26-7]<br>D-Limonen [CAS: 138-86-3]<br>Zakres (0,004 – 20) mg/m <sup>2</sup><br>(0,04 – 200) mg/kg<br><br>Metoda chromatografii gazowej z analizą fazy nadpowierzchniowej, detekcją płomieniowo-jonizacyjną (HS-GC-FID) oraz spektrometrią mas (HS-GC-MS) | PB-231 wyd. 5 z dn. 10.10.2025 |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                     | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Reference documents        |
|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Paper and cardboard materials and articles<br>Plastic materials and articles | <p>Determination of volatile organic compounds (VOC)</p> <p>1-methoxy-2-propanol [CAS: 107-98-2]</p> <p>1-propanol [CAS:71-23-8]</p> <p>2-butanol [CAS: 78-92-2]</p> <p>2-ethoxyethanol [CAS: 110-80-5]</p> <p>2-methyl-1-propanol [CAS:78-83-1]</p> <p>acetone [CAS: 67-64-1]</p> <p>acetylacetone [CAS: 123-54-6]</p> <p>n-butanol [CAS: 71-36-3]</p> <p>cyclohexane [CAS: 110-82-7]</p> <p>cyclohexanone [CAS: 108-94-1]</p> <p>dichloromethane [CAS: 75-09-2]</p> <p>ethanol [CAS: 64-17-5]</p> <p>ethoxypropanol [CAS: 1569-02-4]</p> <p>ethylbenzene [CAS: 100-41-4]</p> <p>furan [CAS:110-00-9]</p> <p>hexane [CAS: 110-54-3]</p> <p>heptane [CAS: 142-82-5]</p> <p>isophorone [CAS: 78-59-1]</p> <p>isopropanol [CAS: 67-63-0]</p> <p>methanol [CAS: 67-56-1]</p> <p>methyl ethyl ketone [CAS: 78-93-3]</p> <p>methyl isobutyl ketone [CAS: 108-10-1]</p> <p>m,p-xylene [CAS:108-38-3]</p> <p>n-propanol [CAS: 67-63-0]</p> <p>1-methoxy-2-propyl acetate [CAS:108-65-6]</p> <p>2-butoxyethyl acetate [CAS: 112-07-2]</p> <p>2-ethoxyethyl acetate [CAS: 111-15-9]</p> <p>2-methoxyethyl acetate [CAS:110-49-6]</p> <p>ethoxypropyl acetate [CAS: 54839-24-6]</p> <p>ethyl acetate [CAS: 141-78-6]</p> <p>isobutyl acetate [CAS: 110-19-0]</p> <p>isopropyl acetate [CAS: 108-21-4]</p> <p>methyl acetate [CAS: 79-20-9]</p> <p>n-butyl acetate [CAS: 123-86-4]</p> <p>n-propyl acetate [CAS: 109-60-4]</p> <p>octane [CAS: 111-65-9]</p> <p>o-xylene [CAS:95-47-6]</p> <p>styrene [CAS: 100-42-5]</p> <p>tetrahydrofuran [CAS: 109-99-9]</p> <p>toluene [CAS: 108-88-3]</p> <p>alpha-Methylstyren [CAS: 98-83-9]</p> <p>1,3-dioxolan [CAS: 646-06-0]</p> <p>Range (0,1 – 20) mg/m<sup>2</sup><br/>(1 – 200) mg/kg</p> <p>Benzene [CAS: 71-43-2]</p> <p>2-methyl-1,3-dioxolane [CAS: 497-26-7]</p> <p>D-Limonene [CAS: 138-86-3]</p> <p>Range (0,004 – 20) mg/m<sup>2</sup><br/>(0,04 – 200) mg/kg</p> <p>Headspace gas chromatography method with flame ionization detection (HS-GC-FID), headspace gas chromatography method with mass spectrometry detection (HS-GC-MS)</p> | PB-231 ed. 5 of 10.10.2025 |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                                                                                     | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Dokumenty odniesienia                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <b>Materiały i wyroby do kontaktu z żywnością i inne materiały i wyroby opakowaniowe <sup>1)</sup></b><br><b>Płyny modelowe po migracji <sup>1)</sup></b> | <b>Zawartość pierwiastków <sup>2), 3)</sup></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Normy <sup>5)</sup></b><br><b>Procedury badawcze <sup>4)</sup></b> |
|                                                                                                                                                           | <b>Metoda spektrometrii mas z jonizacją w plazmie indukcyjnie sprzężonej (ICP-MS)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                       |
|                                                                                                                                                           | <b>Migracja specyficzna (z obliczeń)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                       |
| <b>Materiały i wyroby z tworzyw sztucznych</b><br><b>Płyny modelowe po migracji</b>                                                                       | Zawartość pierwiastków (woda, 3% kwas octowy, 10% etanol, 20% etanol, 50% etanol, 95% etanol)<br>Ag<br>Ba<br>Co<br>Cr <sub>ogólny</sub><br>Cu<br>Fe<br>Li<br>Mn<br>Mo<br>Ni<br>Pb<br>Sb<br>Se<br>Sn<br>Sr<br>Ti<br>V<br>Zn<br>Eu<br>Gd<br>La<br>Tb<br>Hg<br>Zakres: od 0,005 mg/kg płynu modelowego<br>Al<br>B<br>Ca<br>Mg<br>P<br>Zakres: od 0,05 mg/kg płynu modelowego<br>Cd<br>As<br>Zakres: od 0,002 mg/kg płynu modelowego<br>K<br>Na<br>Zakres: od 0,100 mg/kg płynu modelowego<br><br>oraz analizy zawierające dany pierwiastek, na podstawie przeliczeń z uwzględnieniem mas molowych/cząsteczkowych<br><br>Metoda spektrometrii mas z jonizacją w plazmie indukcyjnie sprzężonej (ICP-MS) | PB-204 wyd. 8 z dn. 14.08.2025                                        |
|                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                       |
|                                                                                                                                                           | <b>Migracja specyficzna (z obliczeń)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                       |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                                             | Type of activity/ parameter/ characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Reference documents                    |
|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Materials and articles in contact with food and other packaging materials and articles <sup>1)</sup> | Determination of elements <sup>2), 3)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Standardized methods <sup>5)</sup>     |
| Food simulants after migration <sup>1)</sup>                                                         | Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | In-house test procedures <sup>4)</sup> |
|                                                                                                      | Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |
| Plastic materials and articles<br>Food simulants after migration                                     | Determination of elements (water, 3% acetic acid, 10% ethanol, 20% ethanol, 50% ethanol, 95% ethanol)<br>Ag<br>Ba<br>Co<br>Crtotal<br>Cu<br>Fe<br>Li<br>Mn<br>Mo<br>Ni<br>Pb<br>Sb<br>Se<br>Sn<br>Sr<br>Ti<br>V<br>Zn<br>Eu<br>Gd<br>La<br>Tb<br>Hg<br>Range: from 0,005 mg/kg of food simulant<br>Al<br>B<br>Ca<br>Mg<br>P<br>Range: from 0,05 mg/kg of food simulant<br>Cd<br>As<br>Range: from 0,002 mg/kg of food simulant<br>K<br>Na<br>Range: from 0,100 mg/kg of food simulant<br><br>and analytes containing the element, based on molecular / molecular weight calculations<br><br>Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS) | PB-204 ed. 8 of 14.08.2025             |
|                                                                                                      | Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                            | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Dokumenty odniesienia          |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Materiały i wyroby z tworzyw sztucznych<br>Materiały i wyroby z papieru, tektury | Zawartość pierwiastków (MPPPO (Tenax))<br>Ba<br>Co<br>Crogólny<br>Li<br>Mn<br>Ni<br>Pb<br>Sb<br>Eu<br>Gd<br>La<br>Tb<br>As<br>Zakres: od 0,00040 mg/dm <sup>2</sup><br>Al<br>Mg<br>Fe<br>Cu<br>Zn<br>Zakres: od 0,0020 mg/dm <sup>2</sup><br>Cd<br>Zakres: od 0,00020 mg/dm <sup>2</sup><br>K<br>Na<br>Ca<br>Zakres: od 0,020 mg/dm <sup>2</sup><br>Hg<br>Zakres: od 0,00080 mg/dm <sup>2</sup><br>oraz anality zawierające dany pierwiastek, na podstawie przeliczeń z uwzględnieniem mas molowych/cząsteczkowych<br><br>Metoda spektrometrii mas z jonizacją w plazmie indukcyjnie sprzężonej (ICP-MS) | PB-204 wyd. 8 z dn. 14.08.2025 |
|                                                                                  | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                      | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Reference documents        |
|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Plastic materials and articles<br>Paper and cardboard materials and articles" | "Determination of elements (MPPO (Tenax))<br>Ba<br>Co<br>Crogólny<br>Li<br>Mn<br>Ni<br>Pb<br>Sb<br>Eu<br>Gd<br>La<br>Tb<br>As<br>Range: from 0,00040 mg/dm <sup>2</sup><br>Al<br>Mg<br>Fe<br>Cu<br>Zn<br>Range: from 0,0020 mg/dm <sup>2</sup><br>Cd<br>Range: from 0,00020 mg/dm <sup>2</sup><br>K<br>Na<br>Ca<br>Range: from 0,020 mg/dm <sup>2</sup><br>Hg<br>Range: from 0,00080 mg/dm <sup>2</sup><br>and analytes containing the element, based on<br>molecular / molecular weight calculations<br><br>Mass spectrometry method by ionizing with inductively<br>coupled plasma (ICP-MS) | PB-204 ed. 8 of 14.08.2025 |
|                                                                               | Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                            |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                                           | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Dokumenty odniesienia          |
|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Wyroby ceramiczne<br>Wyroby szklane<br>Wyroby emaliowane<br>Płyny modelowe po migracji                          | Zawartość pierwiastków (4% kwas octowy)<br>Cd<br>As<br>Zakres: od 0,002 mg/kg płynu modelowego<br>Pb<br>Ba<br>Co<br>Cr<br>Ni<br>Zr<br>Zakres: od 0,005 mg/kg płynu modelowego<br>Ca<br>Al<br>Zakres: od 0,050 mg/kg płynu modelowego<br><br>oraz analizy zawierające dany pierwiastek, na podstawie przeliczeń z uwzględnieniem mas molowych/cząsteczkowych<br><br>Metoda spektrometrii mas z jonizacją w plazmie indukcyjnie sprzężonej (ICP-MS)<br><br>Migracja specyficzna (z obliczeń) | PB-204 wyd. 8 z dn. 14.08.2025 |
| Materiały i wyroby z tworzyw sztucznych<br>Materiały i wyroby z papieru i tektury<br>Płyny modelowe po migracji | Zawartość pierwiastków (wyciąg wodny)<br>Hg<br>Cd<br>Zakres: od 0,0025 mg/kg<br>Pb<br>Zakres: od 0,010 mg/kg<br>Metoda spektrometrii mas z jonizacją w plazmie indukcyjnie sprzężonej (ICP-MS)                                                                                                                                                                                                                                                                                             | PB-204 wyd. 8 z dn. 14.08.2025 |
|                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| <b>Material/ product tested</b>                                                                                | <b>Type of activity/ parameter/ characteristic tested</b>                                                                                                                                                                                                                                                                                                                                                                       | <b>Reference documents</b> |
|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Ceramic products<br>Glass products<br>Enamel products<br>Food simulants after migration                        | Determination of elements (4% acetic acid)<br>Cd<br>As<br>Range: from 0,002 mg/kg of food simulant<br>Pb<br>Ba<br>Co<br>Cr<br>Ni<br>Zr<br>Range: from 0,005 mg/kg of food simulant<br>Ca<br>Al<br>Range: from 0,050 mg/kg of food simulant<br><br>and analytes containing the element, based on molecular / molecular weight calculations)<br><br>Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS) | PB-204 ed. 8 of 14.08.2025 |
|                                                                                                                | Food simulants after migration                                                                                                                                                                                                                                                                                                                                                                                                  |                            |
| Plastic materials and articles<br>Paper and cardboard materials and articles<br>Food simulants after migration | Determination of elements (water extract)<br>Hg<br>Cd<br>Range: from 0,0025 mg/kg<br>Pb<br>Range: from 0,010 mg/kg<br>Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)                                                                                                                                                                                                                             | PB-204 ed. 8 of 14.08.2025 |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                                                    | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                  | Dokumenty odniesienia      |
|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| <b>Zabawki <sup>1)</sup></b>                                                                                             | <b>Migracja pierwiastków <sup>2), 3)</sup></b><br><b>Metoda spektrometrii mas z jonizacją w plazmie indukcyjnie sprzężonej (ICP-MS)</b>                                                                                                                                                                                                                                                                                  | <b>Normy <sup>5)</sup></b> |
| Zabawki i materiały na zabawki z:<br>polimerów, papieru, tektury, tekstyliów,<br>szkła, ceramiki, farb, lakierów, klejów | Migracja pierwiastków<br>Al<br>Ba<br>B<br>Sr<br>Zn<br>Zakres: (5,0 – 500) mg/kg<br>Sb<br>As<br>Co<br>Cd<br>Pb<br>Zakres: (0,050 – 500) mg/kg<br>Cr (ogólny)<br>Zakres: (0,02 – 500) mg/kg<br>Cu<br>Mn<br>Ni<br>Se<br>Zakres: (0,50 – 500) mg/kg<br>Sn (ogólna)<br>Zakres: (0,2 – 500) mg/kg<br>Hg<br>Zakres: (0,050 – 50) mg/kg<br><br>Metoda spektrometrii mas z jonizacją<br>w plazmie indukcyjnie sprzężonej (ICP-MS) | PN-EN 71-3+A2:2025-05      |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                                                                          | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                                                                 | Reference documents                       |
|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| <b>Toys <sup>1)</sup></b>                                                                                                         | <b>Elements migration <sup>2), 3)</sup></b><br><b>Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)</b>                                                                                                                                                                                                                                                                   | <b>Standardized methods <sup>5)</sup></b> |
| Toys and materials for toys made of:<br>polymers, paper, cardboard, textiles,<br>glass, ceramics, paints, varnishes,<br>adhesives | Elements migration<br>Al<br>Ba<br>B<br>Sr<br>Zn<br>Range: (5,0 – 500) mg/kg<br>Sb<br>As<br>Co<br>Cd<br>Pb<br>Range: (0,050 – 500) mg/kg<br>Cr (total)<br>Range: (0,02 – 500) mg/kg<br>Cu<br>Mn<br>Ni<br>Se<br>Range: (0,50 – 500) mg/kg<br>Sn (total)<br>Range: (0,2 – 500) mg/kg<br>Hg<br>Range: (0,050 – 50) mg/kg<br>Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS) | PN-EN 71-3+A2:2025-05                     |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                                                                                                                                                                     | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                 | Dokumenty odniesienia                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <b>Sprzęt elektryczny i elektroniczny oraz jego elementy polimerowe, tekstylne, papierowe i elektroniczne, materiały stosowane do produkcji sprzętu elektrycznego i elektronicznego oraz opakowań</b><br><br><b>Zabawki <sup>1)</sup></b> | <b>Zawartość chromu sześciowartościowego <sup>3)</sup></b><br><b>Metoda wysokosprawnej chromatografii cieczowej ze spektrometrią mas z jonizacją w plazmie indukcyjnie sprzężonej (HPLC-ICP-MS)</b>     | <b>Normy <sup>5)</sup></b>                     |
| Sprzęt elektryczny i elektroniczny oraz jego elementy polimerowe, tekstylne, papierowe i elektroniczne, materiały stosowane do produkcji sprzętu elektrycznego i elektronicznego oraz opakowań                                            | Zawartość chromu sześciowartościowego<br>Zakres: (0,005 – 1500) mg/kg<br>Metoda wysokosprawnej chromatografii cieczowej ze spektrometrią mas z jonizacją w plazmie indukcyjnie sprzężonej (HPLC-ICP-MS) | PN-EN 71-3+A2:2025-05<br>PN-EN 62321-5:2014-08 |
| Zabawki i materiały na zabawki z: polimerów, papieru, kartonu, tekstyliów, kleju, metalu, drewna, kredy                                                                                                                                   | Zawartość chromu sześciowartościowego<br>Zakres: (0,005 – 1500) mg/kg<br>Metoda wysokosprawnej chromatografii cieczowej ze spektrometrią mas z jonizacją w plazmie indukcyjnie sprzężonej (HPLC-ICP-MS) | PN-EN 71-3+A2:2025-05                          |

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**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                                                                                                                                                       | Type of activity/ parameter/<br>characteristic tested                                                                                                                                        | Reference documents                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Electrical and electronic equipment and its polymer, textile, paper and electronic components The materials used in the manufacture of electrical and electronic equipment and packaging<br>Toys <sup>1)</sup> | Determination of chromium (VI) <sup>3)</sup><br>High-performance liquid chromatography with ionizing with inductively coupled plasma mass spectrometry method (HPLC-ICP-MS)                  | Standardized methods <sup>5)</sup>             |
| Electrical and electronic equipment and its polymer, textile, paper and electronic components The materials used in the manufacture of electrical and electronic equipment and packaging                       | Determination of chromium (VI)<br>Range: (0,005 – 1500) mg/kg<br>High-performance liquid chromatography with ionizing with inductively coupled plasma mass spectrometry method (HPLC-ICP-MS) | PN-EN 71-3+A2:2025-05<br>PN-EN 62321-5:2014-08 |
| Toys and toy materials of: polymers, paper, cardboard, textiles, glue, metal, wood, chalk                                                                                                                      | Determination of chromium (VI)<br>Range: (0,005 – 1500) mg/kg<br>High-performance liquid chromatography with ionizing with inductively coupled plasma mass spectrometry method (HPLC-ICP-MS) | PN-EN 71-3+A2:2025-05                          |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                                                                                         | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Dokumenty odniesienia                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <b>Zabawki <sup>1)</sup></b><br><b>Materiały i wyroby do kontaktu z żywnością i inne materiały i wyroby opakowaniowe oraz ich wyciągi wodne <sup>1)</sup></b> | <b>Zawartość dodatków, zanieczyszczeń i substancji pomocniczych <sup>2), 3)</sup></b><br><b>Metoda chromatografii cieczowej z detekcją tandemową spektrometrią mas (LC-MS/MS)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Normy <sup>5)</sup></b><br><b>Procedury badawcze <sup>4)</sup></b> |
| Materiały i wyroby z papieru i tektury oraz ich wyciągi wodne                                                                                                 | Zawartość pierwszorzędowych amin aromatycznych (PAA)<br>Zakres:<br>4-aminodifenyl [CAS: 92-67-1]<br>Benzydyna [CAS: 92-87-5]<br>4-chloro-o-toluidyna [CAS: 95-69-2]<br>2-naftyloamina [CAS: 91-59-8]<br>o-aminoazotoluen [CAS: 97-56-3]<br>2-amino-4-nitrotoluen [CAS: 99-55-8]<br>p-chloroanilina [CAS: 106-47-8]<br>2,4-diaminoanizol [CAS: 615-05-4]<br>4,4'-diaminodifenylometan [CAS: 101-77-9]<br>3,3'-dichlorobenzydyna [CAS: 91-94-1]<br>3,3'-dimetoksybenzydyna [CAS: 119-90-4]<br>3,3'-dimetylobenzydyna [CAS: 119-93-7]<br>3,3'-dimetylo-4,4'-diaminodifenylometan [CAS: 838-88-0]<br>p-krezydyna [CAS: 120-71-8]<br>4,4'-metyleno- bis(2-chloroanilina) [CAS: 101-14-4]<br>4,4'-oksydianilina [CAS: 101-80-4]<br>4,4'-tiodianilina [CAS: 139-65-1]<br>o-toluidyna [CAS: 95-53-4]<br>2,4-diaminotoluen [CAS: 95-80-7]<br>2,4,5-trimetylanilina [CAS: 137-17-7]<br>o-anizydyna [CAS: 90-04-0]<br>4-aminoazobenzen [CAS: 60-09-3]<br>Anilina [CAS: 62-53-3]<br>2,4-dimetyloanilina [CAS: 95-68-1]<br>2,6-dimetyloanilina [CAS: 87-62-7]<br>1,5-Diaminonaftalen [CAS: 2243-62-1]<br>3-Chloroanilina [CAS: 108-42-9]<br>p-Toluidyna [CAS: 106-49-0]<br>1,4-Fenylendiamina [CAS: 106-50-3]<br>2,6-Diaminotoluen [CAS: 823-40-5]<br>N,N-Dimetyloanilina [CAS: 121-69-7]<br>2,2'-metylenodianilina [CAS: 6582-52-1]<br>2,4'-metylenodianilina [CAS: 1208-52-2]<br>4,4'-Diaminodifenylosulfon [CAS: 80-08-0]<br>2-Aminobenzamid [CAS: 88-68-6]<br>1,3-Fenylendiamina [CAS: 108-45-2]<br>2,5-Dimetoksy-4-chloroanilina [CAS: 6358-64-1]<br>4-Aminobenzamid [CAS: 2835-68-9] | PN-EN 17163:2019-05<br>PB-413 wyd. 4 z dn. 25.09.2024                 |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                                                                                                    | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Reference documents                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| <b>Toys <sup>1)</sup></b><br><b>Materials and articles in contact with food and other packaging materials and articles and water extracts <sup>1)</sup></b> | <b>Determination of additives, impurities and polymer production aids <sup>2), 3)</sup></b><br><b>Liquid chromatography method with tandem mass spectrometry (LC-MS/MS)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Standardized methods <sup>5)</sup></b><br><b>In-house test procedure <sup>4)</sup></b> |
| Paper and cardboard materials and articles and water extracts                                                                                               | Determination of primary aromatic amines (PAA)<br>4-aminobiphenyl [CAS: 92-67-1]<br>Benzidine [CAS: 92-87-5]<br>4-chloro-o-toluidine [CAS: 95-69-2]<br>2-naphthylamine [CAS: 91-59-8]<br>o-aminoazotoluene [CAS: 97-56-3]<br>2-Amino-4-nitrotoluene [CAS: 99-55-8]<br>p-chloroaniline [CAS: 106-47-8]<br>2,4-diaminoanisole [CAS: 615-05-4]<br>4,4'-diaminodiphenylmethane [CAS: 101-77-9]<br>3,3'-dichlorobenzidine [CAS: 91-94-1]<br>3,3'-dimethoxybenzidine [CAS: 119-90-4]<br>3,3'-dimethylbenzidine [CAS: 119-93-7]<br>3,3'-Diamino-4,4'-dimethyldiphenylmethane [CAS: 838-88-0]<br>p-cresidine [CAS: 120-71-8]<br>4,4'-Methylene-bis(2-chloroaniline) [CAS: 101-14-4]<br>4,4'-oxydianiline [CAS: 101-80-4]<br>4,4'-thiodianiline [CAS: 139-65-1]<br>o-toluidine [CAS: 95-53-4]<br>2,4-toluenediamine [CAS: 95-80-7]<br>2,4,5-trimethylaniline [CAS: 137-17-7]<br>o-anisidine [CAS: 90-04-0]<br>4-aminoazobenzene [CAS: 60-09-3]<br>Anilin [CAS: 62-53-3]<br>2,4-Dimethylaniline [CAS: 95-68-1]<br>2,6-Dimethylaniline [CAS: 87-62-7]<br>1,5-Diaminonaphthalene [CAS: 2243-62-1]<br>3-Chloroaniline [CAS: 108-42-9]<br>p-Toluidine [CAS: 106-49-0]<br>1,4-Phenylenediamine [CAS: 106-50-3]<br>2,6-Diaminotoluene [CAS: 823-40-5]<br>N,N Dimethylaniline [CAS: 121-69-7]<br>2,2'-methylenedianiline [CAS: 6582-52-1]<br>2,4'-methylenedianiline [CAS: 1208-52-2]<br>4,4'-Diaminodiphenyl sulfone [CAS: 80-08-0]<br>2-Aminobenzamide [CAS: 88-68-6]<br>1,3-Phenylenediamine [CAS: 108-45-2]<br>2,5-Dimethoxy-4-chloroaniline [CAS: 6358-64-1]<br>4-Aminobenzamide [CAS: 2835-68-9] | PN-EN 17163:2019-05<br>PB-413 ed. 4 of 25.09.2024                                         |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**  
**Laboratorium Badawcze AB 079**  
**Pracownia Badań Produktów Nieżywnościowych i Opakowań**  
**ul. Chwasczyńska 180, 81-571 Gdynia**  
**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                         | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Dokumenty odniesienia                                 |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| Materiały i wyroby z papieru i tektury oraz ich wyciągi wodne | Kwas 2-amino-1-naftalenosulfonowy [CAS: 81-16-3]<br>Kwas 4-aminotolueno-3-sulfonowy [CAS: 88-44-8]<br>4-Metyloaminosulfono-p-krezydyna [CAS: 49564-57-0]<br>1,2-Fenylendiamina [CAS: 95-54-5]<br>5-Amino-6-metylo-2-benzimidazolone [CAS: 67014-36-2]<br>4,4'-metylenobis(3-chloro-2,6-dietyloanilina) [CAS: 106246-33-7]<br>Kwas 2-amino-5-chloro-p-toluenosulfonowy [CAS: 88-53-9]<br>6-etoksynaftalen-2-amina [CAS: 293733-21-8]<br>Kwas 5-amino-2-metylobenzenosulfonowy [CAS: 118-88-7]<br>4-amino-3-fluorofenol [CAS: 399-95-1]<br>Zakres: od 2,0 µg/l wyciągu wodnego<br>2-metoksy-4-nitroanilina [CAS: 97-52-9]<br>Zakres: od 5,0 µg/l wyciągu wodnego<br><br>Metoda chromatografii cieczowej z detekcją tandemową spektrometrią mas (LC-MS-MS) | PN-EN 17163:2019-05<br>PB-413 wyd. 4 z dn. 25.09.2024 |
| Materiały i wyroby z papieru, tektury oraz ich wyciągi wodne  | Zawartość izotiazolinonów<br>2-metylo-2H-izotiazol-3-on (MIT) [CAS: 2682-20-4]<br>5-chloro-2-metylo-4-izotiazolin-3-on (CIT) [CAS: 26172-55-4]<br>1,2-benzizotiazol-3(2H)-on (BIT) [CAS: 2634-33-5]<br>2-oktylo-2H-izotiazol-3-on (OIT) [CAS: 26530-20-1]<br>2-metylo-1,2-benzotiazol-3(2H)-on (MBIT) [CAS: 2527-66-4]<br>4,5-dichloro-2-oktylo-2H-izotiazol-3-on (DCOIT) [CAS: 64359-81-5]<br>Zakres: od 0,0020 mg/kg wyciągu wodnego<br>2-merkaptobenzotiazol (MBT) [CAS: 149-30-4]<br>Zakres: od 0,0050 mg/kg wyciągu wodnego<br><br>Metoda chromatografii cieczowej z detekcją tandemową spektrometrią mas (LC-MS/MS)                                                                                                                               | PB-430 wyd. 1 z dn. 29.10.2024                        |

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**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

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| Material/ product tested                                      | Type of activity/ parameter/ characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Reference documents        |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
|                                                               | 2-Amino-1-naphthalenesulfonic acid [CAS: 81-16-3]<br>4-Aminotoluene-3-sulfonic acid [CAS: 88-44-8]<br>4-Metylaminosulfonyl-p-cresidine [CAS: 49564-57-0]<br>1,2-Phenylenediamine [CAS: 95-54-5]<br>5-Amino-6-methyl-2-benzimidazolone [CAS: 67014-36-2]<br>4,4'-Methylenebis(3-chloro-2,6-diethylaniline) [CAS: 106246-33-7]<br>2-Amino-5-chloro-p-toluenesulfonic Acid [CAS: 88-53-9]<br>6-Ethoxynaphthalen-2-amine [CAS: 293733-21-8]<br>5-Amino-2-methylbenzenesulfonic acid [CAS: 118-88-7]<br>4-Amino-3-fluorophenol [CAS: 399-95-1]<br>Range: from 2,0 µg/l of water extract<br>2-Methoxy-4-nitroaniline [CAS: 97-52-9]<br>Range: from 5,0 µg/l of water extract<br><br>Liquid chromatography method with tandem mass spectrometry (LC-MS/MS) |                            |
| Paper and cardboard materials and articles and water extracts | Determination of isothiazolinones<br>2-methyl-2H-isothiazol-3-one (MIT) [CAS: 2682-20-4]<br>5-chloro-2-methyl-4-isothiazolin-3-one (CIT) [CAS: 26172-55-4]<br>1,2-benzisothiazol-3(2H)-one (BIT) [CAS: 2634-33-5]<br>2-octyl-2H-isothiazol-3-one (OIT) [CAS: 26530-20-1]<br>2-methyl-1,2-benzothiazol-3(2H)-one (MBIT) [CAS: 2527-66-4]<br>4,5-dichloro-2-octyl-2H-isothiazol-3-one (DCOIT) [CAS: 64359-81-5]<br>Range: from 0,0020 mg/kg of water extract<br>2-mercaptobenzothiazole (MBT) [CAS: 149-30-4]<br>Range: from 0,0050 mg/kg of water extract<br><br>Liquid chromatography method with tandem mass spectrometry detection (LC-MS/MS)                                                                                                     | PB-430 ed. 1 of 29.10.2024 |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

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**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwasczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                        | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Dokumenty odniesienia                                             |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| Materiały i wyroby z papieru, tektury oraz ich wyciągi wodne | Zawartość bisfenoli<br>bisfenol S [CAS: 80-09-1]<br>bisfenol F [CAS: 620-92-8]<br>bisfenol A [CAS: 80-05-7]<br>bisfenol B [CAS: 77-40-7]<br>bisfenol AF [CAS: 1478-61-1]<br>Zakres: od 1,0 µg/l wyciągu wodnego<br><br>Metoda chromatografii cieczowej z detekcją tandemową spektrometrią mas (LC-MS/MS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | PB-346 wyd. 3 z dn. 22.08.2025                                    |
| Materiały i wyroby z tekstyliów, skóry <sup>1)</sup>         | Zawartość amin <sup>2), 3)</sup><br><b>Metoda wysokosprawnej chromatografii cieczowej z detekcją tandemową spektrometrią mas (LC-MS/MS)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Procedury badawcze <sup>4)</sup>                                  |
| Materiały i wyroby z tekstyliów, skóry                       | Zawartość pierwszorzędowych amin aromatycznych uwalnianych z barwników azowych<br>4-Amino-bifenyl [CAS: 92-67-1]<br>Benzydyna [CAS: 92-87-5]<br>4-Chloro-o-toluidyna [CAS: 95-69-2]<br>2-Naftylamina [CAS: 91-59-8]<br>o-Aminoazotoluen [CAS: 97-56-3]<br>2-Amino-4-nitro-toluen [CAS: 99-55-8]<br>p-Chloroanilina [CAS: 106-47-8]<br>2,4-Diaminoanisol [CAS: 615-05-4]<br>4,4'-Diaminodifenylmetan [CAS: 101-77-9]<br>3,3'-Dichlorobenzydyna [CAS: 91-94-1]<br>3,3'-Dimetoksybenzydyna [CAS: 119-90-4]<br>3,3'-Dimetylobenzydyna [CAS: 119-93-7]<br>3,3'-Dimetyl-4,4'-diaminodifenylmetan [CAS 838-88-0]<br>p-Kresydyna [CAS: 120-71-8]<br>4,4'-Metyleno-bis(2-chloro-anilina) [CAS 101-14-4]<br>4,4'-Oksydianilina [CAS: 101-80-4]<br>4,4'-Tiodianilina [CAS: 139-65-1]<br>o-Toluidyna [CAS: 95-53-4]<br>2,4 -Diaminotoluen [CAS: 95-80-7]<br>2,4,5-Trimetyloanilina [CAS: 137-17-7]<br>o-Anisydyna [CAS: 90-04-0]<br>o-Aminoazobenzen [CAS: 60-09-3]<br>Anilina [CAS: 62-53-3]<br>2,4-Dimetyloanilina [CAS: 95-68-1]<br>2,6-Dimetyloanilina [CAS: 87-62-7]<br><br>Zakres: (5-50) mg/kg<br>Metoda wysokosprawnej chromatografii cieczowej z detekcją tandemową spektrometrią mas (LC-MS-MS) | PB-431 wyd. 1 z dnia 13.12.2021<br>PB-486 wyd.1 z dnia 13.12.2021 |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| <b>Material/ product tested</b>                                  | <b>Type of activity/ parameter/ characteristic tested</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Reference documents</b>                               |
|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Paper and cardboard materials and articles and water extracts    | Determination of bisphenols<br>bisphenol S [CAS: 80-09-1]<br>bisphenol F [CAS: 620-92-8]<br>bisphenol A [CAS: 80-05-7]<br>bisphenol B [CAS: 77-40-7]<br>bisphenol AF [CAS: 1478-61-1]<br>Range: from 1,0 µg/l of water extract<br><br>Liquid chromatography method with tandem mass spectrometry detection (LC-MS/MS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PB-346 ed. 3 of 22.08.2025                               |
| <b>Textiles and leather materials and articles <sup>1)</sup></b> | <b>Determination of amines <sup>2), 3)</sup><br/>High performance liquid chromatography method with tandem mass spectrometry (LC-MS/MS)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>In-house test procedure <sup>4)</sup></b>             |
| Textiles and leather materials and articles                      | Determination of primary aromatic amines (PAA) released from azo colourants<br>4-Aminobiphenyl [CAS: 92-67-1]<br>Benzidine [CAS: 92-87-5]<br>4-Chloro-o-toluidin [CAS: 95-69-2]<br>2-Naphtylamine [CAS: 91-59-8]<br>o-Aminoazotoluene [CAS: 97-56-3]<br>2-Amino-4-nitro-toluene [CAS: 99-55-8]<br>4-Chloroaniline [CAS: 106-47-8]<br>2,4-Diaminoanisole [CAS: 615-05-4]<br>4,4'-Diaminodiphenylmethane [CAS: 101-77-9]<br>3,3'-Dichlorobenzidine [CAS: 91-94-1]<br>3,3'-Dimethoxybenzidine [CAS: 119-90-4]<br>3,3'-Dimethylbenzidine [CAS: 119-93-7]<br>4,4'-methylenedi-o-toluidine [CAS 838-88-0]<br>p-Cresidine [CAS: 120-71-8]<br>4,4'-Methylene-bis(2-chloro-aniline) [CAS 101-14-4]<br>4,4'-Oxydianiline [CAS: 101-80-4]<br>4,4'-Thiodianiline [CAS: 139-65-1]<br>o-Toluidine [CAS: 95-53-4]<br>2,4-Diaminotoluene [CAS: 95-80-7]<br>2,4,5-Trimethylaniline [CAS: 137-17-7]<br>o-Anisidine [CAS: 90-04-0]<br>o-Aminoazobenzene [CAS: 60-09-3]<br>Aniline [CAS: 62-53-3]<br>2,4-Dimethylaniline [CAS: 95-68-1]<br>2,6-Dimethylaniline [CAS: 87-62-7]<br><br>Range: (5-50) mg/kg<br><br>High performance liquid chromatography method with tandem mass spectrometry (LC-MS/MS) | PB-431 ed. 1 of 13.12.2021<br>PB-486 ed. 1 of 13.12.2021 |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwasczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                                                                          | Rodzaj działalności/badane<br>cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Dokumenty odniesienia            |
|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Materiały i wyroby do kontaktu z żywnością<br>i inne materiały i wyroby opakowaniowe <sup>1)</sup><br>Płyny modelowe po migracji <sup>1)</sup> | Zawartość dodatków, zanieczyszczeń i substancji<br>pomocniczych <sup>2), 3)</sup><br><b>Metoda chromatografii cieczowej z detekcją<br/>tandemową spektrometrią mas (LC-MS-MS)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Procedury badawcze <sup>4)</sup> |
|                                                                                                                                                | <b>Migracja specyficzna (z obliczeń)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                  |
| Materiały i wyroby z tworzyw sztucznych<br>Płyny modelowe po migracji                                                                          | <p>Zawartość pierwszorzędowych amin aromatycznych (PAA) (woda, 3% kwas octowy, 10% etanol, 20% etanol, 50% etanol, 95% etanol)</p> <p>4-aminodifenyl [CAS :92-67-1]<br/>Benzydyna [CAS: 92-87-5]<br/>4-chloro-o-toluidyna [CAS: 95-69-2]<br/>2-naftyloamina [CAS: 91-59-8]<br/>o-aminoazotoluen [CAS: 97-56-3]<br/>2-amino-4-nitrotoluen [CAS: 99-55-8]<br/>p-chloroanilina [CAS: 106-47-8]<br/>2,4-diaminoanizol [CAS: 615-05-4]<br/>4,4'-diaminodifenylometan [CAS: 101-77-9]<br/>3,3'-dichlorobenzydyna [CAS: 91-94-1]<br/>3,3'-dimetoksybenzydyna [CAS: 119-90-4]<br/>3,3'-dimetylobenzydyna [CAS: 119-93-7]<br/>3,3'-dimetylo-4,4'-diaminodifenylometan [CAS: 838-88-0]<br/>p-krezydyna [CAS: 120-71-8]<br/>4,4'-metyleno- bis(2-chloroanilina) [CAS: 101-14-4]<br/>4,4'-oksydianilina [CAS: 101-80-4]<br/>4,4'-tiodianilina [CAS: 139-65-1]<br/>o-toluidyna [CAS: 95-53-4]<br/>2,4-diaminotoluen [CAS: 95-80-7]<br/>2,4,5-trimetylanilina [CAS: 137-17-7]<br/>o-anizydyna [CAS: 90-04-0]<br/>4-aminoazobenzen [CAS: 60-09-3]<br/>Anilina [CAS: 62-53-3]<br/>2,4-dimetyloanilina [CAS: 95-68-1]<br/>2,6-dimetyloanilina [CAS: 87-62-7]<br/>1,5-Diaminonaftalen [CAS: 2243-62-1]<br/>3-Chloroanilina [CAS: 108-42-9]<br/>p-Toluidyna [CAS: 106-49-0]<br/>1,4-Fenylendiamina [CAS: 106-50-3]<br/>2,6-Diaminotoluen [CAS: 823-40-5]<br/>N,N-Dimetyloanilina [CAS: 121-69-7]<br/>2,2'-metylenodianilina [CAS: 6582-52-1]<br/>2,4'-metylenodianilina [CAS: 1208-52-2]<br/>4,4'-Diaminodifenylsulfon [CAS: 80-08-0]<br/>2-Aminobenzamid [CAS: 88-68-6]<br/>1,3-Fenylendiamina [CAS: 108-45-2]<br/>2,5-Dimetoksy-4-chloroanilina [CAS: 6358-64-1]<br/>4-Aminobenzamid [CAS: 2835-68-9]<br/>Kwas 2-amino-1-naftalenosulfonowy [CAS: 81-16-3]<br/>Kwas 4-aminotolueno-3-sulfonowy [CAS: 88-44-8]<br/>4-Metyloaminosulfono-p-krezydyna [CAS: 49564-57-0]<br/>1,2-Fenylendiamina [CAS: 95-54-5]<br/>5-Amino-6-metylo-2-benzimidazolon [CAS: 67014-36-2]<br/>4,4'-metylenobis(3-chloro-2,6-dietyloanilina) [CAS: 106246-33-7]<br/>Kwas 2-amino-5-chloro-p-toluenosulfonowy [CAS: 88-53-9]<br/>6-etoksynaftalen-2-amina [CAS: 293733-21-8]<br/>Kwas 5-amino-2-metylobenzenosulfonowy [CAS: 118-88-7]<br/>4-amino-3-fluorofenol [CAS: 399-95-1]<br/>Zakres: od 2,0 µg/kg płynu modelowego</p> <p>2-metoksy-4-nitroanilina [CAS: 97-52-9]<br/>Zakres: od 5,0 µg/kg płynu modelowego<br/>Metoda chromatografii cieczowej z detekcją tandemową spektrometrią mas (LC-MS-MS)</p> | PB-413 wyd. 4 z dn. 25.09.2024   |
|                                                                                                                                                | <b>Migracja specyficzna (z obliczeń)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                  |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                                                                                             | Type of activity/ parameter/ characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Reference documents                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| Materials and articles in contact with food and other packaging materials and articles <sup>1)</sup><br>Food simulants after migration <sup>1)</sup> | Determination of additives, impurities and polymer production aids <sup>2), 3)</sup><br>Liquid chromatography method with tandem mass spectrometry (LC-MS/MS)<br>Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | In-house test procedure <sup>4)</sup> |
| Plastic materials and articles<br>Food simulants after migration                                                                                     | Determination of primary aromatic amines (PAA)<br>4-aminobiphenyl [CAS: 92-67-1]<br>Benzidine [CAS: 92-87-5]<br>4-chloro-o-toluidine [CAS: 95-69-2]<br>2-naphthylamine [CAS: 91-59-8]<br>o-aminoazotoluene [CAS: 97-56-3]<br>2-Amino-4-nitrotoluene [CAS: 99-55-8]<br>p-chloroaniline [CAS: 106-47-8]<br>2,4-diaminoanisole [CAS: 615-05-4]<br>4,4'-diaminodiphenylmethane [CAS: 101-77-9]<br>3,3'-dichlorobenzidine [CAS: 91-94-1]<br>3,3'-dimethoxybenzidine [CAS: 119-90-4]<br>3,3'-dimethylbenzidine [CAS: 119-93-7]<br>3,3'-Diamino-4,4'-dimethyldiphenylmethane [CAS: 838-88-0]<br>p-cresidine [CAS: 120-71-8]<br>4,4'-Methylene-bis(2-chloroaniline) [CAS: 101-77-9]<br>4,4'-oxydianiline [CAS: 101-8004]<br>4,4'-thiodianiline [CAS: 139-65-1]<br>o-toluidine [CAS: 95-53-4]<br>2,4-toluenediamine [CAS: 95-80-7]<br>2,4,5-trimethylaniline [CAS: 137-17-7]<br>o-anisidine [CAS: 90-04-0]<br>4-aminoazobenzene [CAS: 60-09-3]<br>Anilin [CAS: 62-53-3]<br>2,4-dimethylaniline [CAS: 60-09-3]<br>2,6- dimethylaniline [CAS: 87-62-7]<br>1,5-Diaminonaphthalene [CAS: 2243-62-1]<br>3-Chloroaniline [CAS: 108-42-9]<br>p-Toluidine [CAS: 106-49-0]<br>1,4-Phenylenediamine [CAS: 106-50-3]<br>2,6-Diaminotoluene [CAS: 87-62-7]<br>N,N Dimethylaniline [CAS: 121-69-7]<br>2,2'-methylenedianiline [CAS: 6582-52-1]<br>2,4'-methylenedianiline [CAS: 1208-52-2]<br>4,4'-Diaminodiphenyl sulfone [CAS: 80-08-0]<br>2-Aminobenzamide [CAS: 88-68-6]<br>1,3-Phenylenediamine [CAS: 108-45-2]<br>2,5-Dimethoxy-4-chloroaniline [6358-64-1]<br>4-Aminobenzamide [CAS: 2835-68-9]<br>2-Amino-1-naphthalenesulfonic acid [CAS: 81-16-3]<br>4-Aminotoluene-3-sulfonic acid [CAS: 88-44-8]<br>4-Methylaminosulfonyl-p-cresidine [CAS: 49564-57-0]<br>1,2-Phenylenediamine [CAS: 95-54-5]<br>5-Amino-6-methyl-2-benzimidazolone [CAS: 67014-36-2]<br>4,4'-Methylenebis(3-chloro-2,6-diethylaniline) [CAS: 106246-33-7]<br>2-Amino-5-chloro-p-toluenesulfonic Acid<br>6-Ethoxynaphthalen-2-amine [CAS: 293733-21-8]<br>5-Amino-2-methylbenzenesulfonic acid [CAS: 118-88-7]<br>4-Amino-3-fluorophenol [CAS: 399-95-1]<br>Range: from 2,0 µg/kg of food simulant<br><br>2-Methoxy-4-nitroaniline [CAS:97-52-9]<br>Range: from 5,0 µg/kg of food simulant<br>Liquid chromatography method with tandem mass spectrometry (LC-MS/MS)<br><br>Specific migration (calculated) | PB-413 ed. 4 of 25.09.2024            |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                            | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Dokumenty odniesienia          |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Materiały i wyroby z tworzyw sztucznych<br>Materiały i wyroby z papieru, tektury | <p>Zawartość pierwszorzędowych amin aromatycznych (PAA) (MPPO (Tenax))</p> <p>4-aminodifenyl [CAS :92-67-1]</p> <p>Benzydyna [CAS: 92-87-5]</p> <p>4-chloro-o-toluidyna [CAS: 95-69-2]</p> <p>2-naftyloamina [CAS: 91-59-8]</p> <p>o-aminoazotoluen [CAS: 97-56-3]</p> <p>2-amino-4-nitrotoluen [CAS: 99-55-8]</p> <p>p-chloroanilina [CAS: 106-47-8]</p> <p>2,4-diaminoanizol [CAS: 615-05-4]</p> <p>4,4'-diaminodifenylometan [CAS: 101-77-9]</p> <p>3,3'-dichlorobenzydyna [CAS: 91-94-1]</p> <p>3,3'-dimetoksybenzydyna [CAS: 119-90-4]</p> <p>3,3'-dimetylobenzydyna [CAS: 119-93-7]</p> <p>3,3'-dimetylo-4,4'-diaminodifenylometan [CAS: 838-88-0]</p> <p>p-krezydyna [CAS: 120-71-8]</p> <p>4,4'-metyleno- bis(2-chloroanilina) [CAS: 101-14-4]</p> <p>4,4'-oksydianilina [CAS: 101-80-4]</p> <p>4,4'-tiodianilina [CAS: 139-65-1]</p> <p>o-toluidyna [CAS: 95-53-4]</p> <p>2,4-diaminotoluen [CAS: 95-80-7]</p> <p>2,4,5-trimetylanilina [CAS: 137-17-7]</p> <p>o-anizydyna [CAS: 90-04-0]</p> <p>4-aminoazobenzen [CAS: 60-09-3]</p> <p>Anilina [CAS: 62-53-3]</p> <p>2,4-dimetyloanilina [CAS: 95-68-1]</p> <p>2,6-dimetyloanilina [CAS: 87-62-7]</p> <p>1,5-Diaminonaftalen [CAS: 2243-62-1]</p> <p>3-Chloroanilina [CAS: 108-42-9]</p> <p>p-Toluidyna [CAS: 106-49-0]</p> <p>1,4-Fenilenodiamina [CAS: 106-50-3]</p> <p>2,6-Diaminotoluen [CAS: 823-40-5]</p> <p>N,N-Dimetyloanilina [CAS: 121-69-7]</p> <p>2,2'-metylenodianilina [CAS: 6582-52-1]</p> <p>2,4'-metylenodianilina [CAS: 1208-52-2]</p> <p>4,4'-Diaminodifenylosulfon [CAS: 80-08-0]</p> <p>2-Aminobenzamid [CAS: 88-68-6]</p> <p>1,3-Fenilenodiamina [CAS: 108-45-2]</p> <p>2,5-Dimetoksy-4-chloroanilina [CAS: 6358-64-1]</p> <p>4-Aminobenzamid [CAS: 2835-68-9]</p> <p>Kwas 2-amino-1-naftalenosulfonowy [CAS: 81-16-3]</p> <p>Kwas 4-aminotolueno-3-sulfonowy [CAS: 88-44-8]</p> <p>4-Metyloaminosulfono-p-krezydyna [CAS: 49564-57-0]</p> <p>1,2-Fenilenodiamina [CAS: 95-54-5]</p> <p>5-Amino-6-metylo-2-benzimidazolone [CAS: 67014-36-2]</p> <p>4,4'-metylenobis(3-chloro-2,6-dietyloanilina) [CAS: 106246-33-7]</p> <p>Kwas 2-amino-5-chloro-p-toluenosulfonowy [CAS: 88-53-9]</p> <p>6-etoksynaftalen-2-amina [CAS: 293733-21-8]</p> <p>Kwas 5-amino-2-metylobenzenosulfonowy [CAS: 118-88-7]</p> <p>4-amino-3-fluorofenol [CAS: 399-95-1]</p> <p>Zakres: od 0,15 µg/dm<sup>2</sup></p> <p>2-metoksy-4-nitroanilina [CAS: 97-52-9]</p> <p>Zakres: od 0,75 µg/dm<sup>2</sup></p> <p>Metoda chromatografii cieczowej z detekcją tandemową spektrometrią mas (LC-MS-MS)</p> | PB-413 wyd. 4 z dn. 25.09.2024 |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                     | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Reference documents       |
|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Plastic materials and articles<br>Paper and cardboard materials and articles | <p>Determination of primary aromatic amines (PAA) (MPPO (Tenax))</p> <p>4-aminodiphenyl [CAS: 92-67-1]</p> <p>Benzidine [CAS: 92-87-5]</p> <p>4-chloro-o-toluidine [CAS: 95-69-2]</p> <p>2-naphthylamine [CAS: 91-59-8]</p> <p>o-aminoazotoluene [CAS: 97-56-3]</p> <p>2-amino-4-nitrotoluene [CAS: 99-55-8]</p> <p>p-chloroaniline [CAS: 106-47-8]</p> <p>2,4-diaminoaniline [CAS: 615-05-4]</p> <p>4,4'-diaminodiphenylmethane [CAS: 101-77-9]</p> <p>3,3'-dichlorobenzidine [CAS: 91-94-1]</p> <p>3,3'-dimethoxybenzidine [CAS: 119-90-4]</p> <p>3,3'-dimethylbenzidine [CAS: 119-93-7]</p> <p>3,3'-dimethyl-4,4'-diaminodiphenylmethane [CAS: 838-88-0]</p> <p>p-cresidine [CAS: 120-71-8]</p> <p>4,4'-methylenebis(2-chloroaniline) [CAS: 101-14-4]</p> <p>4,4'-oxydianiline [CAS: 101-80-4]</p> <p>4,4'-thiodianiline [CAS: 139-65-1]</p> <p>o-toluidine [CAS: 95-53-4]</p> <p>2,4-diaminotoluene [CAS: 95-80-7]</p> <p>2,4,5-trimethylaniline [CAS: 137-17-7]</p> <p>o-anisidine [CAS: 90-04-0]</p> <p>4-aminoazobenzene [CAS: 60-09-3]</p> <p>Aniline [CAS: 62-53-3]</p> <p>2,4-dimethylaniline [CAS: 95-68-1]</p> <p>2,6-dimethylaniline [CAS: 87-62-7]</p> <p>1,5-diaminonaphthalene [CAS: 2243-62-1]</p> <p>3-chloroaniline [CAS: 108-42-9]</p> <p>p-toluidine [CAS: 106-49-0]</p> <p>1,4-phenylene diamine [CAS: 106-50-3]</p> <p>2,6-diaminotoluene [CAS: 823-40-5]</p> <p>N,N-dimethylaniline [CAS: 121-69-7]</p> <p>2,2'-methylenedianiline [CAS: 6582-52-1]</p> <p>2,4'-methylenedianiline [CAS: 1208-52-2]</p> <p>4,4'-diaminodiphenylsulfone [CAS: 80-08-0]</p> <p>2-aminobenzamide [CAS: 88-68-6]</p> <p>1,3-phenylene diamine [CAS: 108-45-2]</p> <p>2,5-dimethoxy-4-chloroaniline [CAS: 6358-64-1]</p> <p>4-aminobenzamide [CAS: 2835-68-9]</p> <p>2-amino-1-naphthalenesulfonic acid [CAS: 81-16-3]</p> <p>4-aminotoluene-3-sulfonic acid [CAS: 88-44-8]</p> <p>4-methylaminosulfonop-cresidine [CAS: 49564-57-0]</p> <p>1,2-phenylene diamine [CAS: 95-54-5]</p> <p>5-amino-6-methyl-2-benzimidazolone [CAS: 67014-36-2]</p> <p>4,4'-methylenebis(3-chloro-2,6-dimethylaniline) [CAS: 106246-33-7]</p> <p>2-amino-5-chloro-p-toluenesulfonic acid [CAS: 88-53-9]</p> <p>6-ethoxynaphthalene-2-amine [CAS: 293733-21-8]</p> <p>5-amino-2-methylbenzenesulfonic acid [CAS: 118-88-7]</p> <p>4-amino-3-fluorophenol [CAS: 399-95-1]</p> <p>Range: from 0.15 µg/dm<sup>2</sup></p> <p>2-methoxy-4-nitroaniline [CAS: 97-52-9]</p> <p>Range: from 0.75 µg/dm<sup>2</sup></p> <p>Method: Liquid chromatography with tandem mass spectrometry detection (LC-MS-MS)</p> | PB-413 ed 4 of 25.09.2024 |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                            | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Dokumenty odniesienia          |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Materiały i wyroby z tworzyw sztucznych<br>Płyny modelowe po migracji            | Zawartość fotoinicjatorów (3% kwas octowy, 10% etanol, 20% etanol, 50% etanol, 95% etanol)<br>1-hydroksycykloheksylo)fenylometanon [CAS: 947-19-3]<br>2-hydroksy-2-metylofenylopropanon [CAS: 7473-98-5]<br><br>Zakres: od 0,010 mg/kg płynu modelowego<br>Metoda chromatografii cieczowej z detekcją tandemową spektrometrią mas (LC-MS-MS)                                                                                                                                                                                                                                                                                                         | PB-497 wyd. 3 z dn. 07.06.2024 |
|                                                                                  | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                |
| Materiały i wyroby z tworzyw sztucznych<br>Materiały i wyroby z papieru, tektury | Zawartość fotoinicjatorów (MPPO (Tenax))<br>1-hydroksycykloheksylo)fenylometanon [CAS: 947-19-3]<br>2-hydroksy-2-metylofenylopropanon [CAS: 7473-98-5]<br><br>Zakres: od 0,0015 mg/dm <sup>2</sup><br>Metoda chromatografii cieczowej z detekcją tandemową spektrometrią mas (LC-MS-MS)                                                                                                                                                                                                                                                                                                                                                              | PB-497 wyd. 3 z dn. 07.06.2024 |
|                                                                                  | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                |
| Materiały i wyroby z tworzyw sztucznych<br>Płyny modelowe po migracji            | Zawartość izotiazolinonów (3% kwas octowy, 10% etanol, 20% etanol, 50% etanol, 95% etanol)<br>2-metylo-2H-izotiazol-3-on (MIT) [CAS: 2682-20-4]<br>5-chloro-2-metylo-4-izotiazolin-3-on (CIT) [CAS: 26172-55-4]<br>1,2-benzizotiazol-3(2H)-on (BIT) [CAS: 2634-33-5]<br>2-oktylo-2H-izotiazol-3-on (OIT) [CAS: 26530-20-1]<br>2-metylo-1,2-benzotiazol-3(2H)-on (MBIT) [CAS: 2527-66-4]<br>4,5-dichloro-2-oktylo-2H-izotiazol-3-on (DCOIT) [CAS: 64359-81-5]<br>2-merkaptobenzotiazol (MBT) [CAS: 149-30-4]<br><br>Zakres: od 0,0050 mg/kg płynu modelowego<br><br>Metoda chromatografii cieczowej z detekcją tandemową spektrometrią mas (LC-MS/MS) | PB-430 wyd. 1 z dn. 29.10.2024 |
|                                                                                  | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                     | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Reference documents        |
|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Plastic materials and articles<br>Food simulants after migration             | Determination of photoinitiators (3% acetic acid, 10% ethanol, 20% ethanol, 50% ethanol, 95% ethanol)<br>1-hydroksycykloheksylo)fenylometanon [CAS: 947-19-3]<br>2-hydroksy-2-metylofenylopropanon [CAS: 7473-98-5]<br><br>Range: from 0,010 mg/kg of food simulant<br>Liquid chromatography method with tandem mass spectrometry (LC-MS/MS)                                                                                                                                                                                                                                                                                                                  | PB-497 ed. 3 of 07.06.2024 |
|                                                                              | Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                            |
| Plastic materials and articles<br>Paper and cardboard materials and articles | Determination of photoinitiators (MPPO (Tenax))<br>1-hydroksycykloheksylo)fenylometanon [CAS: 947-19-3]<br>2-hydroksy-2-metylofenylopropanon [CAS: 7473-98-5]<br><br>Range: from 0,0015 mg/dm <sup>2</sup><br>Liquid chromatography method with tandem mass spectrometry (LC-MS/MS)                                                                                                                                                                                                                                                                                                                                                                           | PB-497 ed. 3 of 07.06.2024 |
|                                                                              | Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                            |
| Plastic materials and articles<br>Food simulants after migration             | Determination of isothiazolinones (3% acetic acid, 10% ethanol, 20% ethanol, 50% ethanol, 95% ethanol)<br>2-methyl-2H-isothiazol-3-one (MIT) [CAS: 2682-20-4]<br>5-Chloro-2-methyl-4-isothiazolin-3-one (CIT) [CAS: 26172-55-4]<br>1,2-Benzisothiazol-3(2H)-one (BIT) [CAS: 2634-33-5]<br>2-octyl-2H-isothiazol-3-one (OIT) [CAS: 26530-20-1]<br>2-methyl-1,2-benzothiazol-3(2H)-one (MBIT) [CAS: 2527-66-4]<br>4,5-dichloro-2-octyl-2H-isothiazol-3-one (DCOIT) [CAS: 64359-81-5]<br>2-Mercaptobenzothiazole (MBT) [CAS: 149-30-4]<br><br>Range: from 0,0050 mg/kg of food simulant<br>Liquid chromatography method with tandem mass spectrometry (LC-MS/MS) | PB-430 ed. 1 of 29.10.2024 |
|                                                                              | Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                            |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| <b>Przedmiot badań/wyrób</b>                                                     | <b>Rodzaj działalności/badane cechy/metoda</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Dokumenty odniesienia</b>   |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Materiały i wyroby z tworzyw sztucznych<br>Materiały i wyroby z papieru, tektury | Zawartość izotiazolinonów (MPPO (Tenax))<br>2-metylo-2H-izotiazol-3-on (MIT) [CAS: 2682-20-4]<br>5-chloro-2-metylo-4-izotiazolin-3-on (CIT) [CAS: 26172-55-4]<br>1,2-benzizotiazol-3(2H)-on (BIT) [CAS: 2634-33-5 ]<br>2-oktylo-2H-izotiazol-3-on (OIT) [CAS: 26530-20-1 ]<br>2-metylo-1,2-benzotiazol-3(2H)-on (MBIT) [CAS: 2527-66-4]<br>4,5-dichloro-2-oktylo-2H-izotiazol-3-on (DCOIT) [CAS: 64359-81-5]<br>2-merkaptobenzotiazol (MBT) [CAS: 149-30-4 ]<br><br>Zakres: od 0, 40 µg/dm <sup>2</sup><br>Metoda chromatografii cieczowej z detekcją tandemową spektrometrią mas (LC-MS/MS) | PB-430 wyd. 1 z dn. 29.10.2024 |
|                                                                                  | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                |
| Materiały i wyroby z tworzyw sztucznych<br>Płyny modelowe po migracji            | Zawartość bisfenoli (woda, 3% kwas octowy, 10% etanol, 20% etanol; 50% etanol, 95% etanol)<br>bisfenol S [CAS: 80-09-1]<br>bisfenol F [CAS: 620-92-8]<br>bisfenol A [CAS: 80-05-7]<br>bisfenol B [CAS: 77-40-7]<br>bisfenol AF [CAS: 1478-61-1]<br>Zakres: od 1,0 µg/kg płynu modelowego<br>Metoda chromatografii cieczowej z detekcją tandemową spektrometrią mas (LC-MS/MS)                                                                                                                                                                                                                | PB-346 wyd. 3 z dn. 22.08.2025 |
|                                                                                  | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                |
| Materiały i wyroby z tworzyw sztucznych<br>Materiały i wyroby z papieru, tektury | Zawartość bisfenoli (MPPO (Tenax))<br>bisfenol S [CAS: 80-09-1]<br>bisfenol F [CAS: 620-92-8]<br>bisfenol A [CAS: 80-05-7]<br>bisfenol B [CAS: 77-40-7]<br>bisfenol AF [CAS: 1478-61-1]<br><br>Zakres: od 0, 040 µg/dm <sup>2</sup><br>Metoda chromatografii cieczowej z detekcją tandemową spektrometrią mas (LC-MS/MS)                                                                                                                                                                                                                                                                     | PB-346 wyd. 3 z dn. 22.08.2025 |
|                                                                                  | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                     | Type of activity/ parameter/ characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Reference documents        |
|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Plastic materials and articles<br>Paper and cardboard materials and articles | Determination of isothiazolinones (MPPO (Tenax))<br>2-methyl-2H-isothiazol-3-one (MIT) [CAS: 2682-20-4]<br>5-Chloro-2-methyl-4-isothiazolin-3-one (CIT) [CAS: 26172-55-4]<br>1,2-Benzisothiazol-3(2H)-one (BIT) [CAS: 2634-33-5]<br>2-octyl-2H-isothiazol-3-one (OIT) [CAS: 26530-20-1]<br>2-methyl-1,2-benzothiazol-3(2H)-one (MBIT) [CAS: 2527-66-4]<br>4,5-dichloro-2-octyl-2H-isothiazol-3-one (DCOIT) [CAS: 64359-81-5]<br>2-Mercaptobenzothiazole (MBT) [CAS: 149-30-4]<br><br>Range: from 0, 40 µg/dm <sup>2</sup><br>Liquid chromatography method with tandem mass spectrometry (LC-MS/MS) | PB-430 ed. 1 of 29.10.2024 |
|                                                                              | Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |
| Plastic materials and articles<br>Food simulants after migration             | Determination of bisphenols (water, 3% acetic acid, 10% ethanol, 20% ethanol, 50% ethanol, 95% ethanol)<br>bisphenol S [CAS: 80-09-1]<br>bisphenol F [CAS: 620-92-8]<br>bisphenol A [CAS: 80-05-7]<br>bisphenol B [CAS: 77-40-7]<br>bisphenol AF [CAS: 1478-61-1]<br><br>Range: from 1,0 µg/kg of food simulant<br>Liquid chromatography method with tandem mass spectrometry (LC-MS/MS)                                                                                                                                                                                                           | PB-348 ed. 3 of 22.08.2025 |
|                                                                              | Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |
| Plastic materials and articles<br>Paper and cardboard materials and articles | Determination of bisphenols (MPPO (Tenax))<br>bisphenol S [CAS: 80-09-1]<br>bisphenol F [CAS: 620-92-8]<br>bisphenol A [CAS: 80-05-7]<br>bisphenol B [CAS: 77-40-7]<br>bisphenol AF [CAS: 1478-61-1]<br><br>Range: from 0, 040 µg/dm <sup>2</sup><br>Liquid chromatography method with tandem mass spectrometry (LC-MS/MS)                                                                                                                                                                                                                                                                         | PB-346 ed. 3 of 22.08.2025 |
|                                                                              | Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                                                                                     | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Dokumenty odniesienia                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| <b>Materiały i wyroby do kontaktu z żywnością i inne materiały i wyroby opakowaniowe <sup>1)</sup></b><br><b>Płyny modelowe po migracji <sup>1)</sup></b> | <b>Zawartość dodatków, zanieczyszczeń i substancji pomocniczych <sup>2), 3)</sup></b><br><b>Metoda chromatografii gazowej z detekcją tandemową spektrometrią mas (GC-MS-MS)</b><br><b>Migracja specyficzna (z obliczeń)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Procedury badawcze <sup>4)</sup></b> |
| <b>Materiały i wyroby z tworzyw sztucznych</b><br><b>Płyny modelowe po migracji</b>                                                                       | Zawartość ftalanów i innych plastifikatorów (3% kwas octowy, 10% etanol, 20% etanol, 50% etanol, 95% etanol)<br>Izoftalan bis(2-etyloheksylu) [CAS: 137-89-3]<br>Fosforan triizobutyli (TIBP) [CAS: 126-71-6] Fosforan<br>tributyli (TBP) [CAS: 126-73-8]<br>Zakres: od 0,033 mg/kg płynu modelowego<br>Ftalan di-izo-nonyli (DINP) [CAS: 28553-12-0; 68515-48-0]<br>Ftalan di-izo-decylu (DIDP) [CAS: 26761-40-0; 68515-49-1]<br>Ester diisononylowy kwasu 1,2 cykloheksanodikarboksylowego (DINCH) [CAS: 166412-78-8]<br>Zakres: od 0,33 mg/kg płynu modelowego<br>Ftalan dimetyli (DMP) [CAS: 131-11-3]<br>Ftalan dialliu (DAP) [CAS: 131-17-9]<br>Izoftalan dimetyli [CAS: 1459-93-4]<br>Fosforan tris(2-chloroetyli) (TCEP) [CAS: 115-96-8]<br>Adypinian diizobutyli [141-04-8]<br>O-acetylocytrynian trietyli [CAS 77-89-4]<br>Zakres: od 0,0083 mg/kg płynu modelowego<br>Ftalan dietyli (DEP) [CAS: 84-66-2]<br>Ftalan etylowo-izobutyli [CAS: 94491-96-0]<br>Adypinian dibutyli [CAS: 105-99-7]<br>Ftalan dipropyli (DPP2) [CAS: 131-16-8]<br>Ftalan di-izo-butyli (DIBP) [CAS: 84-69-5]<br>Ftalan dibutyli (DBP) [CAS: 84-74-2]<br>Ftalan bis(2-metoksyetyli) (DMEP) [CAS: 117-82-8]<br>Ftalan di-izo-amylu (DIPP) [CAS: 605-50-5]<br>N-pentyl-isopentylphtalate (PIPP(2)) [CAS: 776297-69-9]<br>Ftalan di-2-etoksyetyli (DEEP) [CAS: 605-54-9]<br>Ftalan diamylu (DPP) [CAS: 131-18-0]<br>Ftalan di-izo-heksyli (DMPP) [CAS: 71850-09-4]<br>Ftalan di-n-heksyli (DNHP) [CAS: 84-75-3]<br>Adypinian bis(2-etyloheksyli) (DEHA) [CAS: 103-23-1]<br>Ftalan benzylobutyli (BBP) [CAS: 85-68-7]<br>Ftalan di-2-etyloheksyli (DEHP) [CAS: 117-81-7]<br>Ftalan dicykoheksyli (DCHP) [CAS: 84-61-7]<br>Ftalan di-n-oktyli (DNOP) [CAS: 117-84-0]<br>Tereftalan dioktyli (DOTP) [CAS: 6422-86-2]<br>Ftalan dibenzyli (DBP2) [CAS: 523-31-9]<br>Ftalan bis (2-propyloheptyli) (DPHP) [CAS: 53306-54-0]<br>Ftalan dinonyli (DNP) [CAS: 84-76-4]<br>Ftalan diundecyli (DuDP) [CAS: 3648-20-2] | PB-590 wyd. 3 z dn. 15.10.2025          |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory  
ul. Chwaszczyńska 180, 81-571 Gdynia  
Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                                                                                             | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Reference documents                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| Materials and articles in contact with food and other packaging materials and articles <sup>1)</sup><br>Food simulants after migration <sup>1)</sup> | Determination of additives, impurities and polymer production aids <sup>2), 3)</sup><br><br>Gas chromatography method with tandem mass spectrometry detection (GC-MS-MS)<br><br>Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | In-house test procedure <sup>4)</sup> |
| Plastic materials and articles<br>Food simulants after migration                                                                                     | Determination of phthalates and other plasticizers (3% acetic acid, 10% ethanol, 20% ethanol, 50% ethanol, 95% ethanol)<br>Bis(2-ethylhexyl) isophthalate [CAS: 137-89-3]<br>Phosphoric acid, triisobutyl ester (TIBP) [CAS: 126-71-6]<br>Phosphoric acid, tributyl ester (TBP) [CAS: 126-73-8]<br>Range: from 0,033 mg/kg of food simulant<br>Diisononyl phthalate (DINP) [CAS: 28553-12-0; 68515-48-0]<br>Diisodecyl phthalate (DIDP) [CAS: 26761-40-0; 68515-49-1]<br>1,2 Cyclohexanedicarboxylic acid, bis-isononyl (DINCH) [166412-78-8]<br>Range: from 0,33 mg/kg of food simulant<br>Dimethyl phthalate (DMP) [CAS: 131-11-3]<br>Diallyl phthalate (DAP) [CAS: 131-17-9]<br>Isofthalate dimethyl ester [CAS: 1459-93-4]<br>Tris(2-chloroethyl) phosphate (TCEP) [CAS: 115-96-8]<br>Diisobutyl adipate [CAS: 141-04-8]<br>O-acetyl-ethyl citrate [CAS: 77-89-4]<br>Range: from 0,0083 mg/kg of food simulant<br>Diethyl phthalate (DEP) [CAS: 84-66-2]<br>Ethylisobutyl phthalate [CAS: 94491-96-0]<br>Dibutyl adipate [CAS: 105-99-7]<br>Dipropyl phthalate (DPP2) [CAS: 131-16-8]<br>Diisobutyl phthalate (DIBP) [CAS: 84-69-5]<br>Dibutyl phthalate (DBP) [CAS: 84-74-2]<br>Bis(2-methoxyethyl) phthalate (DMEP) [CAS: 117-82-8]<br>Diisopentyl phthalate (DIPP) [CAS: 605-50-5]<br>N-pentyl-isopentyl phthalate (PIPP(2)) [CAS: 776297-69-9]<br>Di-2-ethoxyethyl phthalate (DEEP) [CAS: 605-54-9]<br>Diamyl phthalate (DPP) [CAS: 131-18-0]<br>Di-isohexyl phthalate (DMPP) [CAS: 71850-09-4]<br>Di-n-hexyl phthalate (DNHP) [CAS: 84-75-3]<br>Bis(2-ethylhexyl) adipate (DEHA) [CAS: 103-23-1]<br>Benzylbutyl phthalate (BBP) [CAS: 85-68-7]<br>Di-2-ethylhexyl phthalate (DEHP) [CAS: 117-81-7]<br>Dicyclohexyl phthalate (DCHP) [CAS: 84-61-7]<br>Di-n-octyl phthalate (DNOP) [CAS: 117-84-0]<br>Dioctyl terephthalate (DOTP) [CAS: 6422-86-2]<br>Dibenzyl phthalate (DBP2) [CAS: 523-31-9]<br>Bis(2-propylheptyl) phthalate (DPHP) [CAS: 53306-54-0]<br>Dinonyl phthalate (DNP) [CAS: 84-76-4]<br>Diundecyl phthalate (DuDP) [CAS: 3648-20-2] | PB-590 ed. 3 of 15.10.2025            |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**  
**Laboratorium Badawcze AB 079**  
**Pracownia Badań Produktów Nieżywnościowych i Opakowań**  
**ul. Chwasczyńska 180, 81-571 Gdynia**  
**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                 | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Dokumenty odniesienia          |
|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Materiały i wyroby z tworzyw sztucznych<br>Płyny modelowe po migracji | Ftalan bis(4-metylo-2-pentylu) (DMPP) [CAS: 84-63-9]<br>Ftalan difenylu (DPhP) [CAS: 84-62-8]<br>Tereftalan dimetylu [CAS: 120-61-6]<br>Ftalan didecylu [CAS 84-77-5]<br>Sebacynian di-2-etyloheksylu [CAS 122-62-3]<br>Sebacynian dibutylu [CAS 109-43-3]<br>Cytrynian tri-n-butyloacetylu [CAS: 77-90-7]<br>Fosforan tris(2-etyloheksylu) [CAS 78-42-2]<br>Cytrynian tributylu [CAS: 77-94-1]<br>Fosforan tris(2-chloro-1-metyloetylowego) (TCPP) [CAS: 13674-84-5]<br>Fosforan tris(1,3-dichloro-2-propylu) (TDCPP) [CAS: 13674-87-8]<br>Fosforan tri-2-tolilu [CAS: 78-30-8]<br>Fosforan tri-3-tolilu [CAS: 563-04-2]<br>Fosforan tri-4-tolilu [CAS: 78-32-0]<br>Fosforan trifenylu [CAS: 115-86-6]<br>Cytrynian trietylu [CAS: 77-93-0]<br>Trioctan glicerolu [CAS: 102-76-1]<br>Aminotereftalan dimetylu [CAS: 5372-81-6]<br>Mirystynian metylu [CAS 124-10-7]<br>Zakres: od 0,067 mg/kg płynu modelowego<br>Metoda chromatografii gazowej z detekcją tandemową spektrometrią mas (GC-MS-MS) | PB-590 wyd. 3 z dn. 15.10.2025 |
|                                                                       | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                         | Type of activity/ parameter/ characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Reference documents        |
|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Plastic materials and articles<br>Food simulants after migration | Bis(4-methyl-2-pentyl) phthalate (DMPP) [CAS: 84-63-9]<br>Diphenyl phthalate (DPhP) [CAS: 84-62-8]<br>Dimethyl terephthalate [CAS: 120-61-6]<br>Didecyl phthalate [CAS: 84-77-5]<br>Di(2-ethylhexyl) sebacate [CAS: 122-62-3]<br>Dibutyl sebacate [CAS: 109-43-3]<br>Tri-n-butyl citrate [CAS: 77-90-7]<br>Tris(2-ethylhexyl) phosphate [CAS: 78-42-2]<br>Tributyl phosphate [CAS: 77-94-1]<br>Tris(2-chloro-1-methyl-ethyl) phosphate (TCPP) [CAS: 13674-84-5]<br>Tris(1,3-dichloro-2-propyl) phosphate (TDCPP) [CAS No. 13674-87-8]<br>Tri-2-tolyl phosphate [CAS: 78-30-8]<br>Tri-3-tolyl phosphate [CAS: 563-04-2]<br>Tri-4-tolyl phosphate [CAS: 78-32-0]<br>Triphenyl phosphate [CAS: 115-86-6]<br>Triethyl citrate [CAS: 77-93-0]<br>Triocylglycerol [CAS: 102-76-1]<br>Aminoterephthalate dimethyl [CAS: 5372-81-6]<br>Methyl myristate [CAS: 124-10-7]<br>Range: from 0,067 mg/kg of food simulant<br>Gas chromatography with tandem mass spectrometry detection (GC-MS/MS) | PB-590 ed. 3 of 15.10.2025 |
|                                                                  | Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                            |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                            | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Dokumenty odniesienia          |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Materiały i wyroby z tworzyw sztucznych<br>Materiały i wyroby z papieru, tektury | Zawartość ftalanów i innych plastifikatorów (MPPO (Tenax))<br>Izoftalan bis(2-etyloheksylu) [CAS: 137-89-3]<br>Fosforan triizobutyli (TIBP) [CAS: 126-71-6]<br>Fosforan tributyli (TBP) [CAS: 126-73-8]<br>Zakres: od 0,002 mg/dm <sup>2</sup><br>Ftalan di-izo-nonylu (DINP) [CAS: 28553-12-0; 68515-48-0]<br>Ftalan di-izo-decyli (DIDP) [CAS: 26761-40-0; 68515-49-1]<br>Ester diisononylowy kwasu 1,2-cykloheksanodikarboksylowego (DINCH) [166412-78-8]<br>Zakres: od 0,02 mg/dm <sup>2</sup><br>Ftalan dimetylu (DMP) [CAS: 131-11-3]<br>Ftalan dialliilu (DAP) [CAS: 131-17-9]<br>Izoftalan dimetylu [CAS: 1459-93-4]<br>Fosforan tris(2-chloroetyli) (TCEP) [CAS:115-96-8]<br>Adypinian diizobutyli [141-04-8]<br>O-acetylocytrynian trietyli [CAS 77-89-4]<br>Zakres: od 0,0005 mg/dm <sup>2</sup><br>Ftalan dietyli (DEP) [CAS: 84-66-2]<br>Ftalan etylo-izobutyli [CAS: 94491-96-0]<br>Adypinian dibutyli [CAS: 105-99-7]<br>Ftalan dipropylu (DPP2) [CAS: 131-16-8]<br>Ftalan di-izo-butyli (DIBP) [CAS: 84-69-5]<br>Ftalan dibutyli (DBP) [CAS: 84-74-2]<br>Ftalan bis(2-metoksyetyli) (DMEP) [CAS: 117-82-8]<br>Ftalan di-izo-amylu (DIPP) [CAS: 605-50-5]<br>N-pentyl-isopentylphtalate (PIPP(2)) [CAS: 776297-69-9]<br>Ftalan di-2-etoksyetyli (DEEP) [CAS: 605-54-9]<br>Ftalan diamylu (DPP) [CAS: 131-18-0]<br>Cytrynian tri-n-butyloacetyli (ATBC) [CAS: 77-90-7]<br>Ftalan di-izo-heksylu (DMPP) [CAS: 71850-09-4]<br>Ftalan di-n-heksylu (DNHP) [CAS: 84-75-3]<br>Adypinian bis(2-etyloheksylu) (DEHA) [CAS: 103-23-1]<br>Ftalan benzylobutyli (BBP) [CAS: 85-68-7]<br>Ftalan di-2-etyloheksylu (DEHP) [CAS:117-81-7]<br>Ftalan dicykoheksylu (DCHP) [CAS: 84-61-7]<br>Ftalan di-n-oktyli (DNOP) [CAS: 117-84-0]<br>Tereftalan dioktyli (DOTP) [CAS: 6422-86-2]<br>Ftalan dibenzylu (DBP2) [CAS: 523-31-9]<br>Ftalan bis (2-propyloheptyli) (DPHP) [CAS: 53306-54-0]<br>Ftalan dinonyli (DNP) [CAS: 84-76-4]<br>Ftalan diundecyli (DuDP) [CAS: 3648-20-2]<br>Ftalan bis(4-metylo-2-pentylu) (DMPP) [CAS: 84-63-9]<br>Ftalan difenylu (DPhP) [CAS: 84-62-8]<br>Tereftalan dimetyli [CAS: 120-61-6]<br>Ftalan didecyli [CAS 84-77-5]<br>Sebacynian di-2-etyloheksylu [CAS 122-62-3]<br>Sebacynian dibutyli [CAS 109-43-3]<br>Fosforan tris(2-etyloheksylu) [CAS 78-42-2]<br>Cytrynian tributyli [CAS: 77-94-1]<br>Fosforan tris(2-chloro-1-metyloetylowego) (TCPP) [CAS: 13674-84-5]<br>Fosforan tris(1,3-dichloro-2-propylu) (TDCPP) [CAS: 13674-87-8] | PB-590 wyd. 3 z dn. 15.10.2025 |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                     | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Reference documents        |
|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Plastic materials and articles<br>Paper and cardboard materials and articles | Determination of phthalates and other plasticizers (MPPO (Tenax))<br>Bis(2-ethylhexyl) isophthalate [CAS: 137-89-3]<br>Phosphoric acid, triisobutyl ester (TIBP) [CAS: 126-71-6]<br>Phosphoric acid, tributyl ester (TBP) [CAS: 126-73-8]<br>Range: from 0,002 mg/dm <sup>2</sup><br>Diisononyl phthalate (DINP) [CAS: 28553-12-0; 68515-48-0]<br>Diisodecyl phthalate (DIDP) [CAS: 26761-40-0; 68515-49-1]<br>1,2 Cyclohexanedicarboxylic acid, bis-isononyl (DINCH) [166412-78-8]<br>Range: from 0,02 mg/dm <sup>2</sup><br>Dimethyl phthalate (DMP) [CAS: 131-11-3]<br>Diallyl phthalate (DAP) [CAS: 131-17-9]<br>Isofthalate dimethyl ester [CAS: 1459-93-4]<br>Tris(2-chloroethyl) phosphate (TCEP) [CAS: 115-96-8]<br>Diisobutyl adipate [CAS: 141-04-8]<br>O-acetyl-ethyl citrate [CAS: 77-89-4]<br>Range: from 0,0005 mg/dm <sup>2</sup><br>Diethyl phthalate (DEP) [CAS: 84-66-2]<br>Ethylisobutyl phthalate [CAS: 94491-96-0]<br>Dibutyl adipate [CAS: 105-99-7]<br>Dipropyl phthalate (DPP2) [CAS: 131-16-8]<br>Diisobutyl phthalate (DIBP) [CAS: 84-69-5]<br>Dibutyl phthalate (DBP) [CAS: 84-74-2]<br>Bis(2-methoxyethyl) phthalate (DMEP) [CAS: 117-82-8]<br>Diisopentyl phthalate (DIPP) [CAS: 605-50-5]<br>N-pentyl-isopentyl phthalate (PIPP(2)) [CAS: 776297-69-9]<br>Di-2-ethoxyethyl phthalate (DEEP) [CAS: 605-54-9]<br>Diamyl phthalate (DPP) [CAS: 131-18-0]<br>Tri-n-butyl citrate (ATBC) [CAS: 77-90-7]<br>Di-isoheptyl phthalate (DMPP) [CAS: 71850-09-4]<br>Di-n-hexyl phthalate (DNHP) [CAS: 84-75-3]<br>Bis(2-ethylhexyl) adipate (DEHA) [CAS: 103-23-1]<br>Benzylbutyl phthalate (BBP) [CAS: 85-68-7]<br>Di-2-ethylhexyl phthalate (DEHP) [CAS: 117-81-7]<br>Dicyclohexyl phthalate (DCHP) [CAS: 84-61-7]<br>Di-n-octyl phthalate (DNOP) [CAS: 117-84-0]<br>Di-octyl terephthalate (DOTP) [CAS: 6422-86-2]<br>Dibenzyl phthalate (DBP2) [CAS: 523-31-9]<br>Bis(2-propylheptyl) phthalate (DPHP) [CAS: 53306-54-0]<br>Dinonyl phthalate (DNP) [CAS: 84-76-4]<br>Diundecyl phthalate (DuDP) [CAS: 3648-20-2]<br>Bis(4-methyl-2-pentyl) phthalate (DMPP) [CAS: 84-63-9]<br>Diphenyl phthalate (DPhP) [CAS: 84-62-8]<br>Dimethyl terephthalate [CAS: 120-61-6]<br>Didecyl phthalate [CAS: 84-77-5]<br>Di(2-ethylhexyl) sebacate [CAS: 122-62-3]<br>Dibutyl sebacate [CAS: 109-43-3]<br>Tris(2-ethylhexyl) phosphate [CAS: 78-42-2]<br>Tributyl phosphate [CAS: 77-94-1]<br>Tris(2-chloro-1-methyl-ethyl) phosphate (TCPP) [CAS: 13674-84-5]<br>Tris(1,3-dichloro-2-propyl) phosphate (TDCPP) [CAS: 13674-87-8] | PB-590 ed. 3 of 15.10.2025 |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                                                                       | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Dokumenty odniesienia              |
|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Materiały i wyroby z tworzyw sztucznych<br>Materiały i wyroby z papieru, tektury                                                            | Fosforan tri-2-tolilu [CAS: 78-30-8]<br>Fosforan tri-3-tolilu [CAS: 563-04-2]<br>Fosforan tri-4-tolilu [CAS: 78-32-0]<br>Fosforan trifenyli [CAS: 115-86-6]<br>Cytrynian trietylu [CAS: 77-93-0]<br>Triocetan glicerolu [CAS: 102-76-1]<br>Aminotereftalan dimetylu [CAS: 5372-81-6]<br>Mirystynian metylu [CAS 124-10-7]<br>Zakres: od 0,004 mg/dm <sup>2</sup><br>Metoda chromatografii gazowej z detekcją tandemową spektrometrią mas (GC-MS-MS)<br><br>Migracja specyficzna (z obliczeń) | PB-590 wyd. 2 z dn. 10.07.2025     |
| Przedmiot badań/wyrób                                                                                                                       | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Dokumenty odniesienia              |
| Materiały i wyroby do kontaktu z żywnością i inne materiały i wyroby opakowaniowe <sup>1)</sup><br>Płyny modelowe po migracji <sup>1)</sup> | Zawartość olejów mineralnych (MOSH, MOAH) <sup>2), 3)</sup><br>Metoda chromatografii gazowej z detekcją płomieniowo-jonizacyjną w połączeniu z układem wysokosprawnej chromatografii cieczowej (HPLC-GC-FID)<br><br>Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                        | PB-396/GC <sup>6)</sup>            |
| Materiały i wyroby z tworzyw sztucznych<br>Płyny modelowe po migracji                                                                       | Zawartość olejów mineralnych (MOSH,MOAH) (95% etanol)<br>Zakres: (0,10 – 100) mg/kg płynu modelowego<br>Metoda chromatografii gazowej z detekcją płomieniowo-jonizacyjną w połączeniu z układem wysokosprawnej chromatografii cieczowej (HPLC-GC-FID)<br><br>Migracja specyficzna (z obliczeń)                                                                                                                                                                                               | PB-396/GC wyd. II z dn. 16.11.2020 |
| Materiały i wyroby z tworzyw sztucznych<br>Materiały i wyroby z papieru, tektury                                                            | Zawartość olejów mineralnych (MOSH,MOAH) (MPPO (Tenax))<br>Zakres: (0,015 - 15,0) mg/dm <sup>2</sup><br>Metoda chromatografii gazowej z detekcją płomieniowo-jonizacyjną w połączeniu z układem wysokosprawnej chromatografii cieczowej (HPLC-GC-FID)<br><br>Migracja specyficzna (z obliczeń)                                                                                                                                                                                               | PB-396/GC wyd. II z dn. 16.11.2020 |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                                                                                             | Type of activity/ parameter/ characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                             | Reference documents            |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Plastic materials and articles<br>Paper and cardboard materials and articles                                                                         | Tri-2-tolyl phosphate [CAS: 78-30-8]<br>Tri-3-tolyl phosphate [CAS: 563-04-2]<br>Tri-4-tolyl phosphate [CAS: 78-32-0]<br>Triphenyl phosphate [CAS: 115-86-6]<br>Triethyl citrate [CAS: 77-93-0]<br>Triocylglycerol [CAS: 102-76-1]<br>Aminoterephthalate dimethyl [CAS: 5372-81-6]<br>Methyl myristate [CAS: 124-10-7]<br>Range: from 0,004 mg/dm <sup>2</sup><br>Gas chromatography with tandem mass spectrometry detection (GC-MS/MS)<br><br>Specific migration (calculated) | PB-590 ed. 2 of 10.07.2025     |
| Material/ product tested                                                                                                                             | Type of activity/ parameter/ characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                             | Reference documents            |
| Materials and articles in contact with food and other packaging materials and articles <sup>1)</sup><br>Food simulants after migration <sup>1)</sup> | Determination of mineral oils (MOSH, MOAH) <sup>2), 3)</sup><br>Gas chromatography method with flame ionization detection coupled with high performance liquid chromatography method (HPLC-GC-FID)<br><br>Specific migration (calculated)                                                                                                                                                                                                                                      | PB-396/GC <sup>6)</sup>        |
| Plastic materials and articles<br>Food simulants after migration                                                                                     | Determination of mineral oils (MOSH, MOAH) (95% ethanol)<br>Range: (0,10-100) mg/kg of food simulant<br>Gas chromatography method with flame ionization detection coupled with high performance liquid chromatography method (HPLC-GC-FID)<br><br>Specific migration (calculated)                                                                                                                                                                                              | PB-396/GC ed. II of 16.11.2020 |
| Plastic materials and articles<br>Paper and cardboard materials and articles                                                                         | Determination of mineral oils (MOSH, MOAH) (MPPO (Tenax))<br>Range: (0,015 - 15,0) mg/dm <sup>2</sup><br>Gas chromatography method with flame ionization detection coupled with high performance liquid chromatography method (HPLC-GC-FID)<br><br>Specific migration (calculated)                                                                                                                                                                                             | PB-396/GC ed. II of 16.11.2020 |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwasczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                                                                                     | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                  | Dokumenty odniesienia                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| <b>Materiały i wyroby do kontaktu z żywnością i inne materiały i wyroby opakowaniowe <sup>1)</sup></b><br><b>Płyny modelowe po migracji <sup>1)</sup></b> | <b>Screening substancji dodanych w sposób niezamierzony (NIAS), zawartość <sup>2), 3)</sup></b><br><br><b>Metoda chromatografii gazowej z detekcją spektrometrią mas i detektorem płomieniowo-jonizacyjnym (GC-MS-FID)</b><br><br><b>Migracja specyficzna (z obliczeń)</b>                                                                                                               | <b>Procedury badawcze <sup>4)</sup></b> |
| <b>Materiały i wyroby z tworzyw sztucznych</b><br><b>Materiały i wyroby z papieru, tektury</b>                                                            | <b>Screening substancji dodanych w sposób niezamierzony (NIAS), zawartość (MPPO (Tenax))</b><br><b>Zakres: (0,01 – 60) mg/kg</b><br><b>Metoda chromatografii gazowej z detekcją spektrometrią mas i detektorem płomieniowo-jonizacyjnym (GC-MS-FID)</b><br><br><b>Migracja specyficzna (z obliczeń)</b>                                                                                  | <b>PB-411 wyd. I z dn. 29.06.2020</b>   |
| <b>Materiały i wyroby z tworzyw sztucznych</b><br><b>Materiały i wyroby z papieru, tektury</b><br><b>Płyny modelowe po migracji</b>                       | <b>Screening substancji dodanych w sposób niezamierzony (NIAS), zawartość (3% kwas octowy, 10% etanol, 20% etanol, 50% etanol, 95% etanol, izooktan)</b><br><br><b>Zakres: od 0,01 mg/kg płynu modelowego</b><br><br><b>Metoda chromatografii gazowej z detekcją spektrometrią mas i detektorem płomieniowo-jonizacyjnym (GC-MS-FID)</b><br><br><b>Migracja specyficzna (z obliczeń)</b> | <b>PB-501 wyd. 2 z dn. 26.01.2024</b>   |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                                                                                             | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                  | Reference documents                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Materials and articles in contact with food and other packaging materials and articles <sup>1)</sup><br>Food simulants after migration <sup>1)</sup> | Screening of non-intentionally added substances (NIAS), determination <sup>2), 3)</sup><br><br>Gas chromatography method with mass spectrometry detection and flame ionization detector (GC-MS-FID)<br><br>Specific migration (calculated)                                                                                                             | In-house test procedures <sup>4)</sup> |
| Plastic materials and articles<br>Paper and cardboard materials and articles                                                                         | Screening of non-intentionally added substances (NIAS), determination (MPPO (Tenax))<br>Range: (0,01 – 60) mg/kg<br>Gas chromatography method with mass spectrometry detection and flame ionization detector (GC-MS-FID)<br><br>Specific migration (calculated)                                                                                        | PB-411 ed I of 29.06.2020              |
| Plastic materials and articles<br>Paper and cardboard materials and articles<br>Food simulants after migration                                       | Screening of non-intentionally added substances (NIAS), determination (3% acetic acid, 10% ethanol, 20% ethanol, 50% ethanol, 95% ethanol, isooctan)<br><br>Range: from 0,01 mg/kg of food simulant<br><br>Gas chromatography method with mass spectrometry detection and flame ionization detector (GC-MS-FID)<br><br>Specific migration (calculated) | PB-501 ed. 2 of 26.01.2024             |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwasczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                                                                                     | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Dokumenty odniesienia                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| <b>Materiały i wyroby do kontaktu z żywnością i inne materiały i wyroby opakowaniowe <sup>1)</sup></b><br><b>Płyny modelowe po migracji <sup>1)</sup></b> | <b>Zawartość dodatków, zanieczyszczeń i substancji pomocniczych <sup>2), 3)</sup></b><br><b>Metoda chromatografii cieczowej z detekcją spektrometrią mas i czasem przelotu (LC-QTOF-MS)</b><br><b>Migracja specyficzna (z obliczeń)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Procedury badawcze <sup>4)</sup></b> |
| Materiały i wyroby z tworzyw sztucznych<br>Płyny modelowe po migracji                                                                                     | Zawartość fotoinicjatorów (3% kwas octowy, 10% etanol, 20% etanol, 50% etanol, 95% etanol)<br>tlenek fenylbis(2,4,6-trimetylobenzoilo)fosfiny [CAS: 162881-26-7]<br>2-benzilo-2-(dimetyloamino)-4'-morfolinobutyrofenon [CAS: 119313-12-1]<br>1,1'-(metyleno-di-4,1-fenyleno)bis[2-hydroksy-2-metylo-1-propanon] [CAS: 474510-57-1]<br>2-benzoilo benzoesan metylu [CAS: 606-28-0]<br>1-[4-(2-hydroksyetoksy)-fenylo]-2-hydroksy-2-metylo-1-propan-1-on [CAS: 106797-53-9]<br>2,4-dietylo-9H-tioksanten-9-on, [CAS: 82799-44-8]<br>2-karboksybenzofenon [CAS: 85-52-9]<br>oligo(2-hydroksy-2-metylo-1-(4-(1-metylowinylo)fenylo)propanon) [CAS: 163702-01-0]<br>2,2-dimetoksy-2-fenylacetofenon [CAS: 24650-42-8]<br>2-metylo-1-(4-metylotiofenylo)-2-morfolinopropan-1-on [CAS: 71868-10-5]<br>4-(dimetyloamino)benzoesan 3-metylobutylu [CAS: 21245-01-2]<br>4-(dimetyloamino)benzoesan etylu [CAS: 10287-53-3]<br>4-(dimetyloamino)benzoesan 2-etyloheksylu [CAS: 21245-02-3]<br>4-fenylbenzofenon [CAS: 2128-93-0]<br>benzofenon [CAS: 119-61-9]<br>tlenek difenylo(2,4,6-trimetylobenzoilo)fosfiny [CAS: 75980-60-8]<br>1-[4-(4-benzoiłofenylo)sulfanylo] fenylo]-2-metylo-2-[(4-metylofenylo) sulfonylo]propan-1-on [CAS: 272460-97-6]<br>4-(dimetyloamino)benzoesan 2-[2-[4-(dimetyloamino)benzoilo]oksyetylo-metyloamino]etylul [CAS: 925246-00-0]<br>1-chloro-4-propoksytioksanton [CAS: 142770-42-1]<br>2-hydroksy-2-metylofenylopropanon [CAS: 7473-98-5]<br>4,4'-bis(dimetyloamino)benzofenon [CAS: 90-93-7]<br>4,4'-bis(dimetyloamino)benzofenon [CAS: 90-94-8]<br>4-hydroksybenzofenon [CAS: 1137-42-4]<br>4-hydroksymetylobenzofenon [CAS: 81449-01-6]<br>4-metoksybenzofenon [CAS: 611-94-9]<br>2,4,6-trimetylobenzofenone [CAS: 954-16-5]<br>Zakres: od 0,010 mg/kg płynu modelowego<br>suma izomerów metylobenzofenonu [CAS: 131-58-8; 134-84-9]<br>suma izomerów izopropylu-9H-tioksanten-9-onu [CAS: 75081-21-9]<br>Zakres: od 0,020 mg/kg płynu modelowego<br>Metoda chromatografii cieczowej z detekcją spektrometrią mas i czasem przelotu (LC-QTOF-MS) | PB-497 wyd. 3 z dn. 07.06.2024          |
|                                                                                                                                                           | <b>Migracja specyficzna (z obliczeń)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                         |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                                                                                                    | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Reference documents                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Materials and articles in contact with food<br>and other packaging materials and articles <sup>1)</sup><br><br>Food simulants after migration <sup>1)</sup> | Determination of additives, impurities and polimer<br>production aids <sup>2), 3)</sup><br>Liquid chromatography method with<br>Quadrupole Time-of-Flight Mass<br>Spectrometry (LC-QTOF-MS)<br>Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | In-house test procedures <sup>4)</sup> |
| Plastic materials and articles<br>Food simulants after migration                                                                                            | Determination of photoinitiators (3% acetic acid, 10% ethanol,<br>20% ethanol, 50% ethanol, 95% ethanol)<br>Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide [CAS: 162881-<br>26-7]<br>2-Benzyl-2-(dimethylamino)-4'-morpholinobutyrophenone [CAS:<br>119313-12-1]<br>1,1'-(Methylene-di-4,1-phenylene)bis[2-hydroxy-2-methyl-1-<br>propanone] [CAS: 474510-57-1]<br>Methyl-2-benzoyl-benzoate [CAS: 606-28-0]<br>1-[4-(2-Hydroxyethoxy)-phenyl]-2-hydroxy-2-methyl-1-propane-1-<br>one [CAS: 106797-53-9]<br>2,4-Diethyl-9H-thioxanthen-9-one, [CAS: 82799-44-8]<br>2-Carboxybenzophenone [CAS: 85-52-9]<br>oligo(2-hydroxy-2-methyl-1-(4-(1-methylvinyl)phenyl)propanone)<br>[CAS: 163702-01-0]<br>2,2-Dimethoxy-2-phenylacetophenone [CAS: 24650-42-8]<br>1-Propanone, 2-methyl-1-[(4-methylthio)phenyl]-2-(4-morpholinyl)<br>[CAS: 71868-10-5]<br>Isoamyl 4-(Dimethylamino)-Benzoate [CAS: 21245-01-2]<br>Benzoic acid, 4-(dimethylamino)-, ethyl ester [CAS: 10287-53-3]<br>Benzoic acid, p-(dimethylamino)-, 2-ethylhexyl ester [CAS: 21245-<br>02-3]<br>4-Phenylbenzophenone [CAS: 2128-93-0]<br>Benzophenone [CAS: 119-61-9]<br>Diphenyl-(2,4,6-trimethylbenzoyl)phosphinoxid [CAS: 75980-60-8]<br>1-[4-(4-Benzoylphenyl)sulfanyl]phenyl]-2-methyl-2-[(4-<br>methylphenyl)sulfonyl]propan-1-one [CAS: 272460-97-6]<br>(Methylamino)diethane-2,1-diylbis(4-dimethylamino amino<br>benzoate) [CAS: 925246-00-0]<br>1-Chloro-4-propoxythioxanthone [CAS: 142770-42-1]<br>2-Hydroxy-2-methylphenylpropanone [CAS: 7473-98-5]<br>4,4'-Bis-(diethylamino)-benzophenone [CAS: 90-93-7]<br>4,4'-bis-dimethylamino-benzophenone [CAS: 90-94-8]<br>4-Hydroxybenzophenone [CAS: 1137-42-4]<br>4-Hydroxymethyl-benzophenone [CAS: 81449-01-6]<br>4-Methoxybenzophenone [CAS: 611-94-9]<br>Methanone, phenyl(2,4,6-trimethylphenyl)- [CAS: 954-16-5]<br>Range: from 0,010 mg/kg of food simulant<br>Sum of methylbenzophenone isomers [CAS: 131-58-8; 134-84-9]<br>sum of isopropyl-9H-thioxanthen-9-one isomers [CAS: 75081-21-<br>9]<br>Range: from 0,020 mg/kg of food simulant<br>Liquid chromatography method with Quadrupole Time-of-Flight<br>Mass Spectrometry (LC-QTOF-MS)<br><br>Specific migration (calculated) | PB-497 ed. 3 of 07.06.2024             |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                        | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Dokumenty odniesienia                 |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| <p>Materiały i wyroby z tworzyw sztucznych</p> <p>Materiały i wyroby z papieru, tekstury</p> | <p>Zawartość fotoinicjatorów (MPPPO (Tenax))<br/> tlenek fenyllobis(2,4,6-trimetylobenzoilo)fosfiny [CAS: 162881-26-7]<br/> 2-benzyl-2-(dimetyloamino)-4'-morfolinobutyrofenon [CAS: 119313-12-1]<br/> 1,1'-(metyleno-di-4,1-fenyleno)bis[2-hydroksy-2-metylo-1-propanon] [CAS: 474510-57-1]<br/> 2-benzoilo benzoesan metylu [CAS: 606-28-0]<br/> 1-[4-(2-hydroksyetoksy)-fenylo]-2-hydroksy-2-metylo-1-propan-1-on [CAS: 106797-53-9]<br/> 2,4-dietylo-9H-tioksanten-9-on, [CAS: 82799-44-8]<br/> 2-karboksybenzofenon [CAS: 85-52-9]<br/> oligo(2-hydroksy-2-metylo-1-(4-(1-metylowinylo)fenylo)propanon) [CAS: 163702-01-0]<br/> 2,2-dimetoksy-2-fenylacetofenon [CAS: 24650-42-8]<br/> 2-metylo-1-(4-metylotiofenylo)-2-morfolinopropan-1-on [CAS: 71868-10-5]<br/> 4-(dimetyloamino)benzoesan 3-metylobutylu [CAS: 21245-01-2]<br/> 4-(dimetyloamino)benzoesan etylu [CAS: 10287-53-3]<br/> 4-(dimetyloamino)benzoesan 2-etyloheksylu [CAS: 21245-02-3]<br/> 4-fenylbenzofenon [CAS: 2128-93-0]<br/> benzofenon [CAS: 119-61-9]<br/> tlenek difenyl(2,4,6-trimetylobenzoilo)fosfiny [CAS: 75980-60-8]<br/> 1-[4-(4-benzoilofenylo)sulfanylo] fenylo]-2-metylo-2-[(4-metylofenylo) sulfonylo]propan-1-on [CAS: 272460-97-6]<br/> 4-(dimetyloamino)benzoesan 2-[2-[4-(dimetyloamino)benzoilo]oksyetylo-metyloamino]etylu [CAS: 925246-00-0]<br/> 1-chloro-4-propoksytioksanton [CAS: 142770-42-1]<br/> 2-hydroksy-2-metylofenylopropanon [CAS: 7473-98-5]<br/> 4,4'-bis(dietyloamino)benzofenon [CAS: 90-93-7]<br/> 4,4'-bis(dimetyloamino)benzofenon [CAS: 90-94-8]<br/> 4-hydroksybenzofenon [CAS: 1137-42-4]<br/> 4-hydroksymetylobenzofenon [CAS: 81449-01-6]<br/> 4-metoksybenzofenon [CAS: 611-94-9]<br/> 2,4,6-trimetylobenzofenone [CAS: 954-16-5]<br/> Zakres: od 0,010 mg/kg<br/> suma izomerów metylbenzofenonu [CAS: 131-58-8; 134-84-9]<br/> suma izomerów izopropyl-9H-tioksanten-9-onu [CAS: 75081-21-9]<br/> <br/> Zakres: od 0,020 mg/kg<br/> Metoda chromatografii cieczowej z detekcją spektrometrią mas i czasem przelotu (LC-QTOF-MS)</p> | <p>PB-497 wyd. 3 z dn. 07.06.2024</p> |
|                                                                                              | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                       |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                     | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Reference documents        |
|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Plastic materials and articles<br>Paper and cardboard materials and articles | Determination of photoinitiators (MPPO (Tenax))<br>Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide [CAS: 162881-26-7]<br>2-Benzyl-2-(dimethylamino)-4'-morpholinobutyrophenone [CAS: 119313-12-1]<br>1,1'-(Methylene-di-4,1-phenylene)bis[2-hydroxy-2-methyl-1-propanone] [CAS: 474510-57-1]<br>Methyl-2-benzoyl-benzoate [CAS: 606-28-0]<br>1-[4-(2-Hydroxyethoxy)-phenyl]-2-hydroxy-2-methyl-1-propanone [CAS: 106797-53-9]<br>2,4-Diethyl-9H-thioxanthen-9-one, [CAS: 82799-44-8]<br>2-Carboxybenzophenone [CAS: 85-52-9]<br>oligo(2-hydroxy-2-methyl-1-(4-(1-methylvinyl)phenyl)propanone) [CAS: 163702-01-0]<br>2,2-Dimethoxy-2-phenylacetophenone [CAS: 24650-42-8]<br>1-Propanone, 2-methyl-1-[(4-methylthio)phenyl]-2-(4-morpholinyl) [CAS: 71868-10-5]<br>Isoamyl 4-(Dimethylamino)-Benzoate [CAS: 21245-01-2]<br>Benzoic acid, 4-(dimethylamino)-, ethyl ester [CAS: 10287-53-3]<br>Benzoic acid, p-(dimethylamino)-, 2-ethylhexyl ester [CAS: 21245-02-3]<br>4-Phenylbenzophenone [CAS: 2128-93-0]<br>Benzophenone [CAS: 119-61-9]<br>Diphenyl-(2,4,6-trimethylbenzoyl)phosphinoyl [CAS: 75980-60-8]<br>1-[4-(4-Benzoylphenyl)sulfanyl]phenyl]-2-methyl-2-[(4-methylphenyl)sulfonyl]propan-1-one [CAS: 272460-97-6]<br>(Methylamino)diethane-2,1-diylbis(4-dimethylamino amino benzoate) [CAS: 925246-00-0]<br>1-Chloro-4-propoxythioxanthone [CAS: 142770-42-1]<br>2-Hydroxy-2-methylphenylpropanone [CAS: 7473-98-5]<br>4,4'-Bis-(diethylamino)-benzophenone [CAS: 90-93-7]<br>4,4'-bis-dimethylamino-benzophenone [CAS: 90-94-8]<br>4-Hydroxybenzophenone [CAS: 1137-42-4]<br>4-Hydroxymethyl-benzophenone [CAS: 81449-01-6]<br>4-Methoxybenzophenone [CAS: 611-94-9]<br>Methanone, phenyl(2,4,6-trimethylphenyl)- [CAS: 954-16-5]<br>Range: from 0,010 mg/kg<br>Sum of methylbenzophenone isomers [CAS: 131-58-8; 134-84-9]<br>sum of isopropyl-9H-thioxanthen-9-one isomers [CAS: 75081-21-9]<br><br>Range: from 0,020 mg/kg<br>Liquid chromatography method with Quadrupole Time-of-Flight Mass Spectrometry (LC-QTOF-MS) | PB-497 ed. 3 of 07.06.2024 |
|                                                                              | Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                            |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                                          | Rodzaj działalności/badane<br>cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Dokumenty odniesienia          |
|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Materiały i wyroby z tworzyw sztucznych<br>Materiały i wyroby z papieru, tektury<br>Płyny modelowe po migracji | <p>Zawartość akrylanów (3% kwas octowy, 10% etanol, 20% etanol, 50% etanol, 95% etanol)</p> <p>2-(Dimethylamino)ethyl methacrylate [CAS: 2867-47-2]</p> <p>Pentaerythritol tetraacrylate, PETetra [CAS: 4986-89-4]</p> <p>APPTTA B ethoxylated(5)pentaerythritol tetraacrylate [CAS: 51728-26-8]</p> <p>2-Propenoic acid, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol, 2-methyloxirane and oxirane, PPTTA A [CAS: 144086-02-2]</p> <p>Neopentyl glycol propoxylate (1 PO/OH) diacrylate [CAS: 84170-74-1]</p> <p>Urethanacrylat (akrylan uretanu) [CAS: 63225-53-6]</p> <p>Dipentaerythritolhexaacrylat, DPEHA [CAS: 29570-58-9]</p> <p>Glycerine propoxylate triacrylate, GPTA [CAS: 52408-84-1]</p> <p>DiTMPTetra [CAS: 94108-97-1]</p> <p>eoTMPTA 428 [CAS: 28961-43-5]</p> <p>TEGDMA [CAS: 109-17-1]</p> <p>Triethylene glycol diacrylate [CAS: 1680-21-3]</p> <p>TPGDA [CAS 42978-66-5]</p> <p>Butandiol diacrylate (BDDA) [CAS: 1070-70-8]</p> <p>Acrylic acid, diester with diethyleneglycol, DEGDA [CAS: 4074-88-8]</p> <p>Trimethylolpropane triacrylate, TMPTriA [CAS: 15625-89-5]</p> <p>Dipropylene Glycol Diacrylate, DPGDA [CAS: 57472-68-1]</p> <p>Acrylic acid, hexamethylene ester, HDDA [CAS: 13048-33-4]</p> <p>Pentaerythritol triacrylate, PETiA [CAS: 3524-68-3]</p> <p>Tetra(ethylene glycol) diacrylate, TEGDA [CAS: 17831-71-9]</p> <p>Dipentaerythritol pentaacrylate, DPEPA [CAS: 60506-81-2]</p> <p>1-Butanone, 2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(4-morpholinyl)phenyl] [CAS: 119344-86-4]</p> <p>2-(2-ethoxyethoxy)ethyl acrylate [CAS: 7328-17-8]</p> <p>Trimethylolpropane propoxylate triacrylate [CAS: 53879-54-2]</p> <p>3-methyl-1,5-pentanediyl diacrylate [CAS: 64194-22-5]</p> <p>Tetramethylene dimethacrylate [CAS: 2082-81-7]</p> <p>Propylidynetrimethyl trimethacrylate [CAS: 3290-92-4]</p> <p>Zakres: od 0,01 mg/kg płynu modelowego</p> <p>Metoda chromatografii cieczowej z detekcją spektrometrią mas i czasem przelotu (LC-QTOF-MS)</p> | PB-499 wyd. 3 z dn. 30.10.2023 |
|                                                                                                                | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                                                       | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Reference documents        |
|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Plastic materials and articles<br>Paper and cardboard materials and articles<br>Food simulants after migration | <p>Determination of acrylates (3% acetic acid, 10% ethanol, 20% ethanol, 50% ethanol, 95% ethanol)<br/> 2-(Dimethylamino)ethyl methacrylate [CAS: 2867-47-2]<br/> Pentaerythritol tetraacrylate, PETetraA [CAS: 4986-89-4]<br/> APPTTA B ethoxylated(5)pentaerythritol tetraacrylate [CAS: 51728-26-8]<br/> 2-Propenoic acid, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol, 2-methyloxirane and oxirane, PPTTA A [CAS: 144086-02-2]<br/> Neopentyl glycol propoxylate (1 PO/OH) diacrylate [CAS: 84170-74-1]<br/> Urethanacrylat (akrylan uretanu) [CAS: 63225-53-6]<br/> Dipentaerythritolhexaacrylat, DPEHA [CAS: 29570-58-9]<br/> Glycerine propoxylate triacrylate, GPTA [CAS: 52408-84-1]<br/> DiTMPTetraA [CAS: 94108-97-1]<br/> eoTMPTA 428 [CAS: 28961-43-5]<br/> TEGDMA [CAS: 109-17-1]<br/> Triethylene glycol diacrylate [CAS: 1680-21-3]<br/> TPGDA [CAS 42978-66-5]<br/> Butandiol diacrylate (BDDA) [CAS: 1070-70-8]<br/> Acrylic acid, diester with diethyleneglycol, DEGDA [CAS: 4074-88-8]<br/> Trimethylolpropane triacrylate, TMPTriA [CAS: 15625-89-5]<br/> Dipropylene Glycol Diacrylate, DPGDA [CAS: 57472-68-1]<br/> Acrylic acid, hexamethylene ester, HDDA [CAS: 13048-33-4]<br/> Pentaerythritol triacrylate, PETiA [CAS: 3524-68-3]<br/> Tetra(ethylene glycol) diacrylate, TEGDA [CAS: 17831-71-9]<br/> Dipentaerythritol pentaacrylate, DPEPA [CAS: 60506-81-2]<br/> 1-Butanone, 2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(4-morpholinyl)phenyl] [CAS: 119344-86-4]<br/> 2-(2-ethoxyethoxy)ethyl acrylate [CAS: 7328-17-8]<br/> Trimethylolpropane propoxylate triacrylate [CAS: 53879-54-2]<br/> 3-methyl-1,5-pentanedyl diacrylate [CAS: 64194-22-5]<br/> Tetramethylene dimethacrylate [CAS: 2082-81-7]<br/> Propylidynetrimethyl trimethacrylate [CAS: 3290-92-4]</p> <p>Range: from 0,01 mg/kg of food simulant<br/> Liquid chromatography method with<br/> Quadrupole Time-of-Flight Mass Spectrometry (LC-QTOF-MS)</p> | PB-499 ed. 3 of 30.10.2023 |
|                                                                                                                | Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                            |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwasczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                            | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Dokumenty odniesienia          |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Materiały i wyroby z tworzyw sztucznych<br>Materiały i wyroby z papieru, tektury | Zawartość akrylanów (MPPPO (Tenax))<br>2-(Dimethylamino)ethyl methacrylate [CAS: 2867-47-2]<br>Pentaerythritol tetraacrylate, PETetraA [CAS: 4986-89-4]<br>APPTTA B ethoxylated(5)pentaerythritol tetraacrylate [CAS: 51728-26-8]<br>2-Propenoic acid, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol, 2-methyloxirane and oxirane, PPTTA A [CAS: 144086-02-2]<br>Neopentyl glycol propoxylate (1 PO/OH) diacrylate [CAS: 84170-74-1]<br>Urethanacrylat (akrylan uretanu) [CAS: 63225-53-6]<br>Dipentaerythritolhexaacrylat, DPEHA [CAS: 29570-58-9]<br>Glycerine propoxylate triacrylate, GPTA [CAS: 52408-84-1]<br>DiTMPTetraA [CAS: 94108-97-1]<br>eoTMPTA 428 [CAS: 28961-43-5]<br>TEGDMA [CAS: 109-17-1]<br>Triethylene glycol diacrylate [CAS: 1680-21-3]<br>TPGDA [CAS 42978-66-5]<br>Butandiol diacrylate (BDDA) [CAS: 1070-70-8]<br>Acrylic acid, diester with diethyleneglycol, DEGDA [CAS: 4074-88-8]<br>Trimethylolpropane triacrylate, TMPTriA [CAS: 15625-89-5]<br>Dipropylene Glycol Diacrylate, DPGDA [CAS: 57472-68-1]<br>Acrylic acid, hexamethylene ester, HDDA [CAS: 13048-33-4]<br>Pentaerythritol triacrylate, PETiA [CAS: 3524-68-3]<br>Tetra(ethylene glycol) diacrylate, TEGDA [CAS: 17831-71-9]<br>Dipentaerythritol pentaacrylate, DPEPA [CAS: 60506-81-2]<br>1-Butanone, 2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(4-morpholinyl)phenyl] [CAS: 119344-86-4]<br>2-(2-ethoxyethoxy)ethyl acrylate [CAS: 7328-17-8]<br>Trimethylolpropane propoxylate triacrylate [CAS: 53879-54-2]<br>3-methyl-1,5-pentanedyl diacrylate [CAS: 64194-22-5]<br>Tetramethylene dimethacrylate [CAS: 2082-81-7]<br>Propylidynetrimethyl trimethacrylate [CAS: 3290-92-4]<br><br>Zakres: od 0,0015 mg/dm <sup>2</sup><br>Metoda chromatografii cieczowej z detekcją spektrometrią mas i czasem przelotu (LC-QTOF-MS) | PB-499 wyd. 3 z dn. 30.10.2023 |
|                                                                                  | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                     | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Reference documents         |
|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Plastic materials and articles<br>Paper and cardboard materials and articles | Determination of acrylates (MPPO (Tenax))<br>2-(Dimethylamino)ethyl methacrylate [CAS: 2867-47-2]<br>Pentaerythritol tetraacrylate, PETetraA [CAS: 4986-89-4]<br>APPTTA B ethoxylated(5)pentaerythritol tetraacrylate [CAS: 51728-26-8]<br>2-Propenoic acid, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol, 2-methyloxirane and oxirane, PPTTA A [CAS: 144086-02-2]<br>Neopentyl glycol propoxylate (1 PO/OH) diacrylate [CAS: 84170-74-1]<br>Urethanacrylat (akrylan uretanu) [CAS: 63225-53-6]<br>Dipentaerythritolhexaacrylat, DPEHA [CAS: 29570-58-9]<br>Glycerine propoxylate triacrylate, GPTA [CAS: 52408-84-1]<br>DiTMPTetraA [CAS: 94108-97-1]<br>eoTMPTA 428 [CAS: 28961-43-5]<br>TEGDMA [CAS: 109-17-1]<br>Triethylene glycol diacrylate [CAS: 1680-21-3]<br>TPGDA [CAS 42978-66-5]<br>Butandiol diacrylate (BDDA) [CAS: 1070-70-8]<br>Acrylic acid, diester with diethyleneglycol, DEGDA [CAS: 4074-88-8]<br>Trimethylolpropane triacrylate, TMPTriA [CAS: 15625-89-5]<br>Dipropylene Glycol Diacrylate, DPGDA [CAS: 57472-68-1]<br>Acrylic acid, hexamethylene ester, HDDA [CAS: 13048-33-4]<br>Pentaerythritol triacrylate, PETiA [CAS: 3524-68-3]<br>Tetra(ethylene glycol) diacrylate, TEGDA [CAS: 17831-71-9]<br>Dipentaerythritol pentaacrylate, DPEPA [CAS: 60506-81-2]<br>1-Butanone, 2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(4-morpholinyl)phenyl] [CAS: 119344-86-4]<br>2-(2-ethoxyethoxy)ethyl acrylate [CAS: 7328-17-8]<br>Trimethylolpropane propoxylate triacrylate [CAS: 53879-54-2]<br>3-methyl-1,5-pentanediyl diacrylate [CAS: 64194-22-5]<br>Tetramethylene dimethacrylate [CAS: 2082-81-7]<br>Propylidynetrimethyl trimethacrylate [CAS: 3290-92-4]<br><br>Range: from 0,0015 mg/dm <sup>2</sup><br>Liquid chromatography method with<br>Quadrupole Time-of-Flight Mass<br>Spectrometry (LC-QTOF-MS) | PB-499 ed. 3 of. 30.10.2023 |
|                                                                              | Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                             |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**  
**Laboratorium Badawcze AB 079**  
**Pracownia Badań Produktów Nieżywnościowych i Opakowań**  
**ul. Chwaszczyńska 180, 81-571 Gdynia**  
**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                            | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                                                                                                                                                                               | Dokumenty odniesienia          |
|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Materiały i wyroby z tworzyw sztucznych<br>Płyny modelowe po migracji            | Zawartość kwasu akrylowego i kwasu metakrylowego (3% kwas octowy, 10% etanol, 20% etanol, 50% etanol, 95% etanol)<br><br>Kwas akrylowy [CAS: 79-10-7]<br>Zakres: (1,0 - 10) mg/kg płynu modelowego<br>Kwas metakrylowy [CAS: 79-41-4]<br>Zakres: (2,0 – 10) mg/kg płynu modelowego<br><br>Metoda chromatografii cieczowej z detekcją spektrometrią mas i czasem przelotu (LC-QTOF-MS) | PB-573 wyd. 3 z dn. 07.11.2023 |
|                                                                                  | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                                                                                                                     |                                |
| Materiały i wyroby z tworzyw sztucznych<br>Materiały i wyroby z papieru, tektury | Zawartość kwasu akrylowego i kwasu metakrylowego (MPPO (Tenax))<br><br>Zakres:<br>Kwas akrylowy [CAS: 79-10-7]<br>Kwas metakrylowy [CAS: 79-41-4]<br><br>Zakres: (0,15-1,7) mg/dm <sup>2</sup><br><br>Metoda chromatografii cieczowej z detekcją spektrometrią mas i czasem przelotu (LC-QTOF-MS)                                                                                     | PB-573 wyd. 3 z dn. 07.11.2023 |
|                                                                                  | Migracja specyficzna (z obliczeń)                                                                                                                                                                                                                                                                                                                                                     |                                |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                     | Type of activity/ parameter/<br>characteristic tested                                                                                                                                                                                                                                                                                                                                       | Reference documents        |
|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Plastic materials and articles<br>Food simulants after migration             | Determination of acrylic acid and methacrylic acid (3% acetic acid, 10% ethanol, 20% ethanol, 50% ethanol, 95% ethanol)<br><br>Acrylic acid [CAS: 79-10-7]<br>Range: (1,0 - 10) mg/kg of food simulant<br><br>Methacrylic acid [CAS: 79-41-4]<br>Range: (2,0 – 10) mg/kg of food simulant<br><br>Liquid chromatography method with Quadrupole Time-of-Flight Mass Spectrometry (LC-QTOF-MS) | PB-573 ed. 3 of 07.11.2023 |
|                                                                              | Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                             |                            |
| Plastic materials and articles<br>Paper and cardboard materials and articles | Determination of acrylic acid and methacrylic acid (MPPO (Tenax))<br><br>Acrylic acid [CAS: 79-10-7]<br>Methacrylic acid [CAS: 79-41-4]<br><br>Range: (0,15-1,7) mg/dm <sup>2</sup><br><br>Liquid chromatography method with Quadrupole Time-of-Flight Mass Spectrometry (LC-QTOF-MS)                                                                                                       | PB-573 ed. 3 of 07.11.2023 |
|                                                                              | Specific migration (calculated)                                                                                                                                                                                                                                                                                                                                                             |                            |

**Lista akredytowanych działań prowadzonych w ramach zakresu elastycznego**

**Laboratorium Badawcze AB 079**

**Pracownia Badań Produktów Nieżywnościowych i Opakowań**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Wydanie 14, data wydania: 28.10.2025**

| Przedmiot badań/wyrób                                                                                                      | Rodzaj działalności/badane cechy/metoda                                                                                                                                                                                         | Dokumenty odniesienia                   |
|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| <b>Materiały i wyroby z tworzyw sztucznych <sup>1)</sup></b><br><b>Materiały i wyroby z papieru, tektury <sup>1)</sup></b> | <b>Zawartość olejów mineralnych (MOSH/POSH, MOAH) <sup>2), 3)</sup></b><br><b>Metoda chromatografii gazowej z detekcją płomieniowo-jonizacyjną w połączeniu z układem wysokosprawnej chromatografii cieczowej (HPLC-GC-FID)</b> | <b>Procedury badawcze <sup>4)</sup></b> |
| Materiały i wyroby z papieru, tektury                                                                                      | Zawartość olejów mineralnych (MOSH/POSH, MOAH)<br>Zakres: (0,50 – 600) mg/kg<br>Metoda chromatografii gazowej z detekcją płomieniowo-jonizacyjną w połączeniu z układem wysokosprawnej chromatografii cieczowej (HPLC-GC-FID)   | PB-390 wyd. 2 z dn. 28.06.2024          |
| Materiały i wyroby z tworzyw sztucznych                                                                                    | Zawartość olejów mineralnych (MOSH/POSH, MOAH)<br>Zakres: (0,50 – 3000) mg/kg<br>Metoda chromatografii gazowej z detekcją płomieniowo-jonizacyjną w połączeniu z układem wysokosprawnej chromatografii cieczowej (HPLC-GC-FID)  | PB-390 wyd. 2 z dn. 28.06.2024          |

<sup>1)</sup> Dodanie przedmiotu badań w ramach grupy przedmiotów badań.

<sup>2)</sup> Dodanie badanej cechy w ramach przedmiotu/grupy przedmiotów badań i metody (techniki badawczej).

<sup>3)</sup> Zmianę zakresu pomiarowego metody badawczej.

<sup>4)</sup> Stosowanie zaktualizowanych i wdrażanie nowych metod opisanych w procedurach opracowanych przez laboratorium.

<sup>5)</sup> Stosowanie zaktualizowanych i wdrażanie nowych metod opisanych w normach.

<sup>6)</sup> Stosowanie zaktualizowanych metod opisanych w procedurach opracowanych przez laboratorium.

|                                   |  |
|-----------------------------------|--|
| Sporządził: Kierownik ds. Jakości |  |
| Wydął: Kierownik ds. Jakości      |  |

**The list of activities carried out within the flexible scope of accreditation**

**Testing Laboratory AB 079**

**Non-Food and Packaging Laboratory**

**ul. Chwaszczyńska 180, 81-571 Gdynia**

**Edition 14, edition date: 28.10.2025**

| Material/ product tested                                                                                 | Type of activity/ parameter/ characteristic tested                                                                                                                                                                  | Reference documents                    |
|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Plastic materials and articles <sup>1)</sup><br>Paper and cardboard materials and articles <sup>1)</sup> | Determination of mineral oils (MOSH/POSH, MOAH) <sup>2), 3)</sup><br><br>Gas chromatography method with flame ionization detection coupled with high performance liquid chromatography method (HPLC-GC-FID)         | In-house test procedures <sup>4)</sup> |
| Paper and cardboard materials and articles                                                               | Determination of mineral oils (MOSH/POSH, MOAH)<br>Range: (0,50 - 600) mg/kg<br>Gas chromatography method with flame ionization detection coupled with high performance liquid chromatography method (HPLC-GC-FID)  | PB-390 ed. 2 of 28.06.2024             |
| Plastic materials and articles                                                                           | Determination of mineral oils (MOSH/POSH, MOAH)<br>Range: (0,50 - 3000) mg/kg<br>Gas chromatography method with flame ionization detection coupled with high performance liquid chromatography method (HPLC-GC-FID) | PB-390 ed. 2 of 28.06.2024             |

<sup>1)</sup> Adding the subject of research within a group of subjects.

<sup>2)</sup> Adding the examined feature within the subject / groups of subjects and methods (research techniques).

<sup>3)</sup> Change in the measuring range of the test method.

<sup>4)</sup> Applying updated and implemented new methods described in-house test procedures.

<sup>5)</sup> Applying updated and implemented new methods described in the standardized methods.

<sup>6)</sup> Applying updated methods described in-house test procedures.

|                                        |  |
|----------------------------------------|--|
| Prepared by: Quality Assurance Manager |  |
| Issued by: Quality Assurance Manager   |  |