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PCA


Zakres akredytacji Nr AB 079  
Scope of accreditation No AB 079

**ZAKRES AKREDYTACJI  
LABORATORIUM BADAWCZEGO  
SCOPE OF ACCREDITATION FOR TESTING LABORATORY**

**Nr/No. AB 079**

wydany przez / issued by  
**POLSKIE CENTRUM AKREDYTACJI**  
**01-382 Warszawa, ul. Szczotkarska 42**

Wydanie/Issue 53 z/of 18.12.2020

 <p>AB 079</p>	<p>Nazwa i adres / Name and address</p> <p><b>J.S. HAMILTON POLAND Sp. z o.o.</b> <b>LABORATORIUM BADAWCZE</b> <b>ul. Chwaszczyńska 180</b> <b>81-571 Gdynia</b></p>
<p><b>Kod identyfikacyjny / Identification code <sup>1)</sup></b></p>	<p><b>Dziedzina i przedmiot badań / Field of testing and item:</b></p>
<ul style="list-style-type: none"><li>- B/1, B/22, B/55, B/57</li><li>- C/28/P, C/29/P, C/30/P, C/31/P, C/32/P</li><li>- C/1, C/4, C/6, C/10, C/17, C/18, C/21, C/22, C/23, C/25, C/42, C/45, C/48, C/49, C/53, C/54, C/55</li><li>- K/9/P, K/28/P, K/29/P, K/30/P, K/32/P</li></ul>	<ul style="list-style-type: none"><li>- Badania biologiczne i biochemiczne – produkty rolne, żywność, pasze dla zwierząt, obiekty z obszaru produkcji żywności / Biological and biochemical tests of agricultural products – including animal feedstuffs, food, objects from food production area</li><li>- Badania chemiczne i pobieranie próbek - woda, woda do spożycia przez ludzi, ścieki, gleba, osady, odpady / Chemical tests and sampling of water, drinking water, sewage, soil, sediments, waste</li><li>- Badania chemiczne - produkty rolne, wyroby chemiczne, wyroby i wyposażenie elektryczne, paliwa, wyroby inne, papier, tektura, wyroby z tworzyw sztucznych i gumy, żywność, tekstylia i skóra, zabawki, kosmetyki, farby i lakiery, inne przetwory naftowe, materiały opakowaniowe, wyroby i wyposażenie telekomunikacyjne i elektroniczne, wyroby i wyposażenie elektroniczne, pasze dla zwierząt / Chemical tests of agricultural products – including feedstuffs, chemical products, electrical, products and equipment, fuels (gas, liquid, solid), other products, plastic and rubber products, foods, textiles, toys, cosmetics, paints and lacquers, paper, cardboard, other petroleum products, packaging materials, electrical, telecommunication and electronic products and equipment, electronic equipment, animal feedstuffs</li><li>- Badania mikrobiologiczne i pobieranie próbek – powietrze, woda, woda do spożycia przez ludzi, ścieki, osady / Microbiological tests and sampling of air, water, drinking water, sewage, sediments</li></ul>

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<sup>1)</sup> Kod identyfikacyjny zgodnie z załącznikiem do dokumentu DAB-07 dostępnym na stronie internetowej [www.pca.gov.pl](http://www.pca.gov.pl) / The identification code according to the Annex to document DAB-07, available at PCA website [www.pca.gov.pl](http://www.pca.gov.pl)

**KIEROWNIK DZIAŁU AKREDYTACJI  
BADAŃ CHEMICZNYCH**

**BEATA CZECHOWICZ**

**Niniejszy dokument jest załącznikiem do Certyfikatu Akredytacji Nr AB 079 z dnia 03.08.2020 r.  
Cykl akredytacji od 24.05.2018 r. do 31.05.2022 r.**

**Status akredytacji oraz aktualność zakresu akredytacji można potwierdzić na stronie internetowej PCA [www.pca.gov.pl](http://www.pca.gov.pl)**

This document is an annex to accreditation certificate No. AB 079 of 03.08.2020  
Accreditation cycle from 24.05.2018 to 31.05.2022

The status of accreditation and validity of the scope of accreditation can be confirmed at PCA website [www.pca.gov.pl](http://www.pca.gov.pl)


# ZAKRES AKREDYTACJI LABORATORIUM BADAWCZEGO

## SCOPE OF ACCREDITATION FOR TESTING LABORATORY

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<b>Kod identyfikacyjny / Identification code <sup>*)</sup></b>	<b>Dziedzina i przedmiot badań / Field of testing and item:</b>
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**KIEROWNIK DZIAŁU AKREDYTACJ  
BADAŃ CHEMICZNYCH**

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<b>Fuel Laboratory Gdynia</b> Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Liquid fuels: diesel oil, light heating fuel</b>	Cetane index (calculated)	PN-EN ISO 4264:2018-08
<b>Liquid fuels: diesel oil, unleaded petrol, light heating fuel, marine fuel</b>	Copper strip test Range: corrosion degree 1 - 4 Visual method	PN-EN ISO 2160:2004
<b>Liquid fuels: diesel oil, light heating fuel, heavy heating fuel, marine fuel</b>	Kinematic viscosity Capillary method Range: (2,000 – 50,00) mm <sup>2</sup> /s  Dynamic viscosity (calculated)	PN-EN ISO 3104:2004
<b>Liquid fuels: diesel oil, light heating fuel, marine fuel</b>	Water content Range: (0,003 – 0,100) % (m/m) Coulometric titration method	PN-EN ISO 12937:2005
<b>Liquid fuels: diesel oil, light heating fuel, marine fuel</b>	Contamination content Range: (6 – 30) mg/kg Gravimetric method	PN-EN 12662:2014-05
<b>Liquid fuels: diesel oil, light heating fuel, heavy heating fuel, marine fuel</b>	Pour point Range: (-33 – +30) °C Visual method	PN-EN ISO 3016:2019-06
	Ash content Range: (0,001 – 0,180) % (m/m) Gravimetric method	PN-EN ISO 6245:2008
<b>Liquid fuels: light heating fuel, heavy heating fuel, marine fuel</b>	Sulphur content Range: (0,03 – 3,0) % (m/m) Energy-dispersive X ray fluorescence spectrometry method	PN-EN ISO 8754:2007+Ap1:2014-02
<b>Liquid fuels: diesel oil, light heating fuel, marine fuel</b>	Cloud point Range: (-40 – 0) °C Visual method	PN-EN ISO 3015:2019-06
<b>Liquid fuels: unleaded petrol</b>	Gum content Range: Solvent-washed gum (1,0 – 10,0) mg/100 ml Unwashed gum (1,0 – 100,0) mg/100 ml Gravimetric method	PN-EN ISO 6246:2017-05
	Oxidation stability Range: (200– 600) min Induction period method	PN-EN ISO 7536:2011
	Air saturated vapor pressure (ASVP) Range: (50,0 – 90,0) kPa Mini Reid method	PN-EN 13016-1:2018-05
	Dry vapour pressure equivalent (DVPE) (calculated)	
	Benzene content Range: (0,1 – 2,0) % (v/v) IR spectrometry method	PN-EN 238:2000 PN-EN 238:2000/A1:2008

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Liquid fuels: unleaded petrol	Hydrocarbon types content Range: Aromatic hydrocarbons (20,0 – 40,0) % (v/v) Olefins (1,0 – 20,0) % (v/v) Saturated hydrocarbons (45,0 – 68,0) % (v/v) Fluorescent indicator adsorption method (FIA method)	PN-EN 15553:2009
Liquid fuels: diesel oil	Fatty acid methyl esters content (FAME) Range: (0,05 – 22,7) % (v/v) IR spectrometry method	PN-EN 14078:2014-06
Liquid fuels: diesel oil, unleaded petrol, light heating fuel, marine fuel	Sulphur content Range: (3,0 – 500) mg/kg Ultraviolet fluorescence method	PN-EN ISO 20846:2012
Liquid fuels: diesel oil, light heating fuel, heavy heating fuel, marine fuel	Flash point Range: (40,0 – 140,0) °C Pensky-Martens closed cup method	PN-EN ISO 2719:2016-08
Liquid fuels: diesel oil, light heating fuels	Cold filter plugging point (CFPP) Range: (-41 – 0) °C Optical method	PN-EN 116:2015-09
Liquid fuels: diesel oils, fatty acid methyl esters (FAME)	Oxidation stability Range: (1,0 – 40,0) h Conductometric method	PN-EN 15751:2014-05
Liquid fuels: diesel oil, light heating fuel, marine fuel	Carbon residue Range: (0,01 – 15,00) % (m/m) Gravimetric method	PN-EN ISO 10370:2014-12
	Oxidation stability Range: (2 – 25) g/m <sup>3</sup> Gravimetric method	PN-EN ISO 12205:2011
Liquid fuels: diesel oil, light heating fuel, heavy heating fuel	Gross calorific value Range: (30,000 – 45,000) kJ/kg Calorimetric method Net calorific value (calculated)	PN-C-04062:2018-05
Liquid fuels: heavy heating fuel	Water content Range: (0,05 – 25) % (m/m) Distillation method	PN-EN ISO 9029:2005
Liquid fuels: diesel oil, unleaded petrol, light heating fuel, marine fuel	Distillation characteristics Range: (10,0 – 400,0) °C Distillation method	PN-EN ISO 3405:2019-05
Chemical products: solvents	Density Range: (600,0 – 1,100) kg/m <sup>3</sup> Oscillating method	PN-EN ISO 12185:2002
Spirits and alcoholic beverages	Ethyl alcohol content Range: (30,0 – 99,9) % Oscillating method	PN-A-79528-3:2007
Spirits and alcoholic beverages Chemical products: solvents	Water content Range: (0,005 – 50) % (m/m) Titrimetric method	PN-ISO 760:2001

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Subject of testing/product	Type of activity/tested qualities/method	Reference document	
<b>Gaseous fuels: Liquefied hydrocarbon gases, LPG</b>	Detection of hydrogen sulphide Visual method	PN-EN ISO 8819:2000	
	Sulphur content Range: (1,0 – 196) mg/kg Ultraviolet fluorescence method	ASTM D 6667-14 (2019)	
	Copper strip test Range: corrosion degree 1 - 4 Visual method	PN-EN ISO 6251:2001	
	Detection of water Visual method	PN-EN 15469:2009	
	Net calorific value (calculated)	PN-C-96008:1998	
	Hydrocarbons composition Range: (0,1 – 100) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	PN-ISO 7941:1993+Ap1:2002 PN-EN 27941:2015-12	
	Total dienes content (as 1,3-butadiene) Range: (0,1 – 2,0) % (mol/mol) Gas chromatography method with flame ionization detection (GC-FID)	PN-ISO 7941:1993+Ap1:2002 PN-EN 27941:2015-12	
	Motor octane number MON (calculated)	PN-EN 589:2019-04 app. B	
	Density at temperature 15 °C (calculated)	PN-EN ISO 8973:2000	
	Density at temperature 15,6 °C (calculated)	PN-C-96008:1998	
	Vapor pressure at temperature -15 °C (calculated)	PN-C-96008:1998	
	Vapor pressure at temperatures: -10 °C, -5 °C, 0 °C, 10 °C, 37,8 °C, 40 °C, 50 °C, 70 °C (calculated)	PN-EN ISO 8973:2000 PN-EN 589:2019-04 app. C	
	Temperature, at which the vapour pressure is not less than 150 kPa (calculated)	PN-EN ISO 8973:2000 PN-EN 589:2019-04	
	Odour Organoleptic method	PN-EN 589:2019-04 app. A	
	<b>Gaseous fuels: natural gas</b>	Oxygen, carbon dioxide, nitrogen content Range: Oxygen (0,05 – 20) % (mol/mol) Carbon dioxide (0,05 – 1) % (mol/mol) Nitrogen (0,5 – 65,0) % (mol/mol) Gas chromatography-thermal conductivity detection method (GC-TCD)	PB-208 ed. I of 31.01.2013

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Gaseous fuels: natural gas</b>	Hydrocarbons composition Range: Methane (0,03 – 100) % (mol/mol) Ethane (0,03-15) % (mol/mol) Propane (0,03-100) % (mol/mol) Butane (0,03-25) % (mol/mol) Iso-butane (0,03-25) % (mol/mol) Pentane (0,03-1) % (mol/mol) Iso-pentane (0,03-1) % (mol/mol) 2,2-dimethylpropane (0,03-1) % (mol/mol) C <sub>6+</sub> (0,03 – 1) % (mol/mol) Gas chromatography method with flame ionization detection (GC-FID)	PB-207 ed. I of 31.01.2013
	Gross calorific value (calculated)	PN-EN ISO 6976:2016-11
	Net calorific value (calculated)	
	Density (calculated)	
	Relative density (calculated)	
	Wobbe index (calculated)	
<b>Liquid fuels: fatty acids methyl esters (FAME)</b>	Density Range: (860,0 – 900,0) kg/m <sup>3</sup> Oscillating method	PN-EN ISO 12185:2002
	Kinematic viscosity Range: (3,500 – 5,000) mm <sup>2</sup> /s Capillary method	PN-EN ISO 3104:2004
	Flash point Range: (90,0–180) °C Pensky-Martens closed cup method	PN-EN ISO 2719:2016-08
	Copper strip test Range: corrosion degree 1 – 4 Visual method	PN-EN ISO 2160:2004
	Water content Range: (0,010 – 0,100) % (m/m) Coulometric titration method	PN-EN 12937:2005
	<b>Liquid fuels: fatty acids methyl esters (FAME)</b>	Contamination content Range: (6 – 30) mg/kg Gravimetric method
Sulphur content Range: (3,0 – 50,0) mg/kg Ultraviolet fluorescence method		PN-EN ISO 20846:2012
<b>Animal and vegetable fats and oils</b>	Water content Range: (0,05 – 2,0) % (m/m) Potentiometric titration method	PN-EN ISO 8534:2017-03

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Liquid fuels: diesel oil</b>	Aromatic hydrocarbons groups content Range: -mono-aromatic hydrocarbons (MAH) (6-30)% (m/m) -di-aromatic hydrocarbons (DAH) (1-10)% (m/m) -tri+-aromatic hydrocarbons (T+AH) (0-2)% (m/m) -polycyclic aromatic hydrocarbons (POLY-AH) (1-12)% (m/m) High performance liquid chromatography method with refractometric detection (HPLC-RID)  Total content of aromatic hydrocarbons (calculated)	PN-EN 12916:2019-06

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<b>Fuel Laboratory Małaszewicze</b> Kolejarzy 6, 21-540 Małaszewicze		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Liquid fuels: diesel oil</b>	Sulphur content Range: (3,0 – 50,0) mg/kg Ultraviolet fluorescence method	PN-EN ISO 20846:2012
<b>Liquid fuels: diesel oil</b>	Density Range: (820,0 – 840,0) kg/m <sup>3</sup> Areometric method	PN-EN ISO 3675:2004
<b>Other petroleum products: petroleum paraffins, petroleum waxes, petrolatum</b>	Kinematic viscosity at 100 °C Range: (3,000 – 15,00) mm <sup>2</sup> /s Capillary method	PN-EN ISO 3104:2004
	Oil content Range: (0,4 – 30) % (m/m) Gravimetric method	ASTM D 721-17
	Oil content Range: (0,4 – 15) % (m/m) Gravimetric method	ISO 2908:1974
	Colour Range: 0,5 – 5 Visual method	ASTM D 1500-12 (2017)
	Congealing point Range: (30 – 70) °C Visual method	ASTM D 938-12 (2017)
<b>Liquid fuels: diesel oil</b>	Distillation characteristics at atmospheric pressure Range: (150 – 400) °C Distillation method	PN-EN ISO 3405:2019-05
<b>Gaseous fuels: Liquefied hydrocarbon gases, LPG</b>	Detection of hydrogen sulphide Visual method	PN-EN ISO 8819:2000
	Sulphur content Range: (1,0 – 100) mg/kg Ultraviolet fluorescence method	ASTM D 6667-14 (2019)
	Copper strip test Range: corrosion degree (1 – 4) Visual method	PN-EN ISO 6251:2001
	Detection of water Visual method	PN-EN 15469:2009
	Dissolved residue Range: (30 – 100) mg/kg Gravimetric method	PN-EN 15471:2017-08
	Hydrocarbons composition Range: (0,1 – 100) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	PN-ISO 7941:1993+Ap1:2002 PN-EN 27941:2015-12
	Total dienes content (as 1,3-butadiene) Range: (0,1 – 1,0) % (mol/mol) Gas chromatography method with flame ionization detection (GC-FID)	PN-ISO 7941:1993+Ap1:2002 PN-EN 27941:2015-12

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Gaseous fuels: Liquefied hydrocarbon gases, LPG</b>	Motor octane number MON (calculated)	PN-EN 589:2019-04 app. B
	Density at temperature 15 °C (calculated)	PN-EN ISO 8973:2000
	Density at temperature 15,6 °C (calculated)	PN-C-96008:1998
	Vapor pressure at temperature -15 °C (calculated)	PN-C-96008:1998
	Temperature, at which the vapour pressure is not less than 150 kPa (calculated)	PN-EN ISO 8973:2000 PN-EN 589:2019-04
	Vapor pressure at temperatures: -10 °C, -5 °C, 0 °C, 10 °C, 37,8 °C, 40 °C, 50 °C, 70 °C (calculated)	PN-EN ISO 8973:2000 PN-EN 589:2019-04 app. C
	Net calorific value (calculated)	PN-C-96008:1998
	Odour Organoleptic method	PN-EN 589:2019-04 app. A
	Mineral oil residue Range: (0,0002 – 0,0100) % (m/m) Gravimetric method	PN-C-96008:1998
	<b>Liquid fuels: diesel oil</b>	Fatty acid methyl esters content (FAME) Range: (0,05 – 10,0) % (v/v) IR spectrometry method
Flash point Range: (40,0 – 80,0) °C Pensky-Martens closed cup method		PN-EN ISO 2719:2016-08

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<b>Fuel Laboratory Tychy</b> Goździków 1, 43-100 Tychy		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Gaseous fuels: Liquefied hydrocarbon gases, LPG</b>	Detection of hydrogen sulphide Visual method	PN-EN ISO 8819:2000
	Sulphur content Range: (1,0 – 200) mg/kg Ultraviolet fluorescence method	ASTM D 6667-14 (2019)
	Copper strip test Range: corrosion degree (1 – 4) Visual method	PN-EN ISO 6251:2001
	Detection of water Visual method	PN-EN 15469:2009
	Hydrocarbons composition Range: (0,1 – 100) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	PN-ISO 7941:1993+Ap1:2002 PN-EN 27941:2015-12
	Total dienes content (as 1,3-butadiene) Range: (0,1- 1,0) % (mol/mol) Gas chromatography method with flame ionization detection (GC-FID)	PN-ISO 7941:1993+Ap1:2002 PN-EN 27941:2015-12
	Motor octane number MON (calculated)	PN-EN 589:2019-04 app. B
	Density at temperature 15 °C (calculated)	PN-EN ISO 8973:2000
	Density at temperature 15,6 °C (calculated)	PN-C-96008:1998
	Vapor pressure at temperatures: -15 °C, 40 °C and 70 °C (calculated)	PN-C-96008:1998
	Vapor pressure at temperatures: -10 °C, -5 °C, 0 °C, 10 °C, 37,8 °C, 40 °C, 50 °C, 70 °C (calculated)	PN-EN ISO 8973:2000 PN-EN 589:2019-04 app. C
	Temperature, at which the relative vapour pressure is not less than 150 kPa (calculated)	PN-EN ISO 8973:2000 PN-EN 589:2019-04
	Net calorific value (calculated)	PN-C-96008:1998
	Odour Organoleptic method	PN-EN 589:2019-04 app. A
	Dissolved residues Range: (30 – 100) mg/kg Gravimetric method	PN-EN 15471:2017-08
<b>Solid fuels: coal</b>	Volatile matters content Range: (18,00 – 38,00) % Gravimetric method	PN-G-04516:1998
	Total moisture content Range: (1,0– 25,0) % Gravimetric method	PN-ISO 589:2006 method B1
	CO <sub>2</sub> emission factor (calculated)	PB-258 ed. I of. 15.01.2014
	Oxidation factor (calculated - on basis of total carbon content in fuel and solid products of combustion)	PB-259 ed. I of. 15.01.2014

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Solid fuels: coal</b>	Sintering ability Range : 0 – 80 Gravimetric method	PN-81/G-04518
	Fixed carbon factor (calculated)	PN-G-04516:1998
<b>Solid fuels: coke derived from coal</b>	Total moisture content Range: (1,0 – 60,0) % Gravimetric method	PN-ISO 579:2002
	Moisture content in test sample Range:(0,1 – 6,0) % (m/m) Gravimetric method	PN-ISO 687:2005
<b>Solid fuels: coal and coke</b>	Total moisture content Range: Hard coal (1,0 – 25,0) % Coke (0,1 – 10,0) % Gravimetric method	PN-80/G-04511 p. 2.3.2, p. 2.3.4
	Moisture content in test sample Range: (0,10 – 10,00) % Thermogravimetric method	PN-G-04560:1998
	Moisture content in test sample Range: (0,1 – 10,0) % Gravimetric method	PN-ISO 11722:2009
	Ash content Range: (0,10 – 55,00) % Thermogravimetric method	PN-G-04560:1998
	Ash content Range: (1,0 – 55,0) % Gravimetric method	PN-ISO 1171:2002
	Gross calorific value Range: (14000 – 35000) kJ/kg Calorimetric method Net calorific value (calculated)	PN-81/G-04513 ISO 1928:2009
	Volatile matters content Range: Hard coal (2,0 – 40,0) % Coke (1,0 – 20,0) % Gravimetric method	ISO 562:2010
	Chlorine content Range:(0,03 – 0,50) % Titrimetric method	PN-ISO 587:2000 p. 7.2.1
	Total sulphur content Range: (0,10 – 2,50) % (m/m) High-temperature combustion method with IR detection	PN-G-04584:2001 ASTM D 4239-18 <sup>e1</sup> (method A)
	Total sulphur content Range: (0,20 – 2,50) % (m/m) High-temperature combustion method with IR detection	ISO 19579:2006
	Total carbon content Range: (40,0 – 100,0) % High-temperature combustion method with IR detection	PN-G-04571:1998 PKN-ISO/TS 12902:2007
	Hydrogen content Range: (0,10 – 5,60) % High-temperature combustion method with IR detection	PN-G-04571:1998 PKN-ISO/TS 12902:2007

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Waste <sup>o)</sup> group code:</b> 10 01 01, 10 01 02, 10 01 03, 10 01 15, 10 01 17, 10 01 80	Moisture content in test sample Range: (0,10 – 10,00) % Thermogravimetric method	PB-72 ed. I of 26.09.2008
	Ash content Range:(40,00 – 99,90) % (m/m) Thermogravimetric method	PB-347 ed. I of 29.11.2016
	Total carbon content Range: (0,1 – 40,0) % High-temperature combustion method with IR detection	PB-73 ed. I of 26.09.2008
	Total moisture content Range: (0,1 – 40,0) % Gravimetric method	PB-90 ed. I of 16.05.2009
<b>Solid fuels: solid biomass - solid biofuels</b>	Moisture content in test sample Range: (1,00 – 20,00) % Thermogravimetric method	PB-98 ed. III of 21.05.2013
<b>Solid fuels: solid biomass - solid biofuels</b>	Total moisture content Range: (3,0 – 85,0) % Gravimetric method	PN-EN ISO 18134-2:2017-03
	Hydrogen content Range: (3,0 – 8,0) % High-temperature combustion method with IR detection	PN-EN ISO 16948:2015-07
	Ash content Range: (0,1 – 45,0) % Gravimetric method	PN-EN ISO 18122:2016-01
	Sulphur content Range: (0,02 – 0,20) % High-temperature combustion method with IR detection	PN-EN ISO 16994:2016-10 p. 4.4
	Carbon content Range: (30,0 – 50,0) % High-temperature combustion method with IR detection	PN-EN ISO 16948:2015-07
	Gross calorific value Range: (5000 – 22000) kJ/kg Calorimetric method Net calorific value (calculated)	PN-EN ISO 18125:2017-07

<sup>o)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

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<b>Microbiology Laboratory Gdynia</b> Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Meat and meat products, Fruits, vegetables, fruit and vegetable products and vegetable with meat products Fish and fishery products Cereals and cereal products Frozen products Ready-made culinary products Eggs and egg products Feed Honey</b>	Detection of antibiotics residues Diffusion method	PB-216 ed. II of 23.10.2015 based on the manufacturer's instructions Premi Test
<b>Milk Milk powder Cream</b>	Detection of antibiotics and other inhibitors Diffusion method	PN-91/A-86033 Delvotest SP NT
<b>Fruit, vegetable and vegetable with meat products</b>	Shelf life Thermostatic test	PN-90/A-75052/03
<b>Meat and meat products</b>	Shelf life Thermostatic test	PN-A-82055-5:1994
<b>Fish and fishery products</b>	Shelf life Thermostatic test	PN-A-86732:1992
<b>Water</b>	Odour, flavour Descriptive method	PB-201 ed. I of 01.02.2013
<b>Paper, cardboard, paper and cardboard products</b>	Permeability of the antimicrobial components Culturing, diffusion method	PN-EN 1104:2007
<b>Environmental samples from food and cosmetics production areas as well as food and cosmetics trade: -swabs from the surface limited with template - swabs from surface unlimited with template</b>	Enumeration of Legionella Membrane filtration method	PB-404 ed. I of 30.10.2019
<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5)</sup>		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from food and cosmetics production areas as well as food trade: - swabs from the surface limited with template - swabs from surface unlimited with template</b>	Detection of DNA specific for tested microorganism <sup>2)</sup> PCR method, Bax System	In-house test procedures <sup>4)</sup>
	Most probable number of microorganisms <sup>2)</sup> Dilution method, system TEMPO	In-house test procedures <sup>4)</sup>

Flexible scope of accreditation <sup>1), 2), 3), 4), 5)</sup>		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Food <sup>1)</sup></b> <b>Feed</b>  <b>Environmental samples from food and cosmetics production areas as well as food trade</b> - swabs from the surface limited with template - swabs from surface unlimited with template  <b>Cosmetics</b>	Enumeration of microorganisms <sup>2)</sup> Colony count technique (spread plate method)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Food <sup>1)</sup></b> <b>Feed</b>  <b>Environmental samples from areas of cosmetics production:</b> - swabs from the surface limited with template - swabs from surface unlimited with template  <b>Drinking water, surface water, water, pool water, sewage, sewage sludge, soil</b> <b>Cosmetics</b>	Enumeration of microorganisms <sup>2)</sup> Colony count technique (pour plate method)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Environmental samples from areas of food production and food trade <sup>1)</sup></b> <b>Paper, cardboard, paper and cardboard products</b> <b>Plastic products and rubber products</b> <b>Metal, glass and ceramics products</b> <b>Wood and wood products</b>	Enumeration of microorganisms <sup>2)</sup> Colony count technique (pour plate method)	Standardized methods <sup>5)</sup>
<b>Environmental samples from food and cosmetics production areas as well as food and cosmetics trade:</b> - contact plates (surfaces) - agar plates (air)	Enumeration of microorganisms <sup>2)</sup> Colony count technique	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Food <sup>1)</sup></b> <b>Feed</b>  <b>Environmental samples from food and cosmetics production areas as well as food trade</b> - swabs from the surface limited with template - swabs from surface unlimited with template  <b>Drinking water, surface water, pool water, sewage, sewage sludge, soil</b> <b>Cosmetics</b>	Detection of microorganisms <sup>2)</sup> The tube culturing method	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
	Detection of microorganisms <sup>2)</sup> The tube culturing method with biochemical confirmation	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>

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<b>Flexible scope of accreditation<sup>1), 2), 3), 4), 5)</sup></b>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Food<sup>1)</sup></b> <b>Feed</b> <b>Environmental samples from food and cosmetics production areas as well as food trade</b> - swabs from the surface limited with template - swabs from surface unlimited with template <b>Drinking water, surface water, pool water, sewage, sewage sludge, soil</b> <b>Cosmetics</b>	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical confirmation	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Food<sup>1)</sup></b> <b>Feed</b> <b>Environmental samples from areas of cosmetics production:</b> - swabs from the surface limited with template - swabs from surface unlimited with template <b>Drinking water, surface water, pool water, sewage, sewage sludge, soil</b> <b>Cosmetics</b>	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and serological confirmation	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Environmental samples from areas of food production and food trade<sup>1)</sup></b>	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and serological confirmation	Standardized methods <sup>5)</sup>
<b>Food<sup>1)</sup></b> <b>Feed</b> <b>Environmental samples from areas of food production and food trade</b> - swabs from the surface limited with template - swabs from surface unlimited with template	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and microscopic confirmation	Standardized methods <sup>5)</sup>
<b>Food<sup>1)</sup></b> <b>Feed</b> <b>Environmental samples from food and cosmetics production areas as well as food trade</b> - swabs from the surface limited with template - swabs from surface unlimited with template <b>Drinking water, surface water, pool water, sewage, sewage sludge, soil</b>	Most probable number of microorganisms <sup>2)</sup> Tube fermentation technique MPN	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Drinking water, surface water, pool water, sewage, water</b> <b>Diesel</b>	Detection and enumeration of microorganisms <sup>2)</sup> Membrane filtration method	Standardized methods <sup>5)</sup>

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<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5), 6)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Paper, cardboard, paper and cardboard products</b> <b>Plastic products and rubber products</b> <b>Metal, glass and ceramics products</b> <b>Wood and wood products</b>	Detection of microorganisms <sup>2)</sup> The tube culturing method with biochemical confirmation	Standardized methods <sup>5)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical confirmation	Standardized methods <sup>5)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and serological confirmation	Standardized methods <sup>5)</sup>
<b>Microorganisms strains</b>	Taxonomic identification of microorganisms <sup>2)</sup> Biochemical, immunochemical, PCR, microscopic method	PB-251 <sup>3)</sup>
<b>Food</b> <sup>1)</sup>	Detection of specific DNA of Escherichia coli and detection of Shiga toxin-producing Escherichia coli (STEC) <sup>2)</sup> PCR method, Bax System	ISO/TS 13136 <sup>6)</sup> PB-402 <sup>3)</sup>

Within the flexible scope of accreditation, it is allowed:

- 1) Adding the subject of testing within the group of subjects,
- 2) Adding the tested feature within the subject / group of subjects and methods (testing technique),
- 3) Applying the updated methods described in-house test procedures,
- 4) Applying the updated and implemented new methods described in-house test procedures,
- 5) Applying the updated and implemented new methods described in the standardized methods,
- 6) Applying the updated methods described in the standardized methods.

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<b>Molecular Biology Laboratory Tychy</b> Goździków 1, 43-100 Tychy		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4)</sup>		
<b>Food</b> <sup>1)</sup> <b>Feed</b>  <b>Environmental samples from areas of food production and food trade</b>	Detection of a specific GMO sequence (screening) <sup>2)</sup> Real-time PCR method	PB-397 <sup>4)</sup>
	Detection of a specific genetic modification DNA <sup>2)</sup> Real-time PCR method	PB-391 <sup>4)</sup>
	Detection of a specific allergen DNA <sup>2)</sup> Real-time PCR method	PB-393 <sup>4)</sup> PB-399 <sup>4)</sup>
	Detection of a specific meat species DNA <sup>2)</sup> Real-time PCR method	PB-399 <sup>4)</sup>
	Content of allergen <sup>2),3)</sup> Immunoenzymatic method - ELISA	PB-394 <sup>4)</sup>
<b>Fruits, vegetables and fruit and vegetable preserves</b> <b>Environmental samples from areas of food production and food trade</b>	Detection of viral genetic material <sup>2)</sup> Real-Time RT-PCR method	PB-202 <sup>4)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b>	Content of a specific genetic modification DNA <sup>2), 3)</sup> Real-time PCR method	PB-392 <sup>4)</sup>
	Content of a specific meat species DNA <sup>2), 3)</sup> Real-time PCR method	PB-399 <sup>4)</sup>
	Content of a specific allergen DNA <sup>2), 3)</sup> Real-time PCR method	

Within the flexible scope of accreditation, it is allowed:

- 1) Adding the subject of testing within the group of subjects,
- 2) Adding the tested feature within the subject / group of subjects and methods (testing technique),
- 3) Changing the measuring range of the test method,
- 4) Applying the updated methods described in-house test procedures.

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<b>Microbiology Laboratory Przeźmierowo</b> Rzemieślnicza 9, 62-081 Przeźmierowo		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Environmental samples from areas of cosmetics production and cosmetics trade:</b> - swab from the surface limited with template - swab from surface unlimited with template	Enumeration of microorganisms Colony count technique (pour plate method)	PN-EN ISO 4833-1:2013-12
	Enumeration of Enterobacteriaceae Colony count technique (pour plate method)	PN-EN ISO 21528-2:2017-08
<b>Environmental samples from areas of cosmetic production and cosmetic trade</b> -contact plates (surfaces)	Enumeration of microorganisms Colony count technique	PN-EN ISO 4833-2:2013-12
	Enumeration of Enterobacteriaceae Colony count technique	PN-EN ISO 21528-2:2017-08
<b>Flexible scope of accreditation</b> <sup>1),2), 3), 4)</sup>		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from areas of food production and food trade:</b> - swab from the surface limited with template - swab from surface unlimited with template	Detection of DNA specific for tested microorganism <sup>2)</sup> PCR method, Bax System	In-house test procedures <sup>3)</sup>
	Enumeration of microorganisms <sup>2)</sup> Colony count technique (spread plate method)	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method test-tube	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method test-tube with biochemical confirmation	Standardized methods <sup>4)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical confirmation	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and microscopic confirmation	Standardized methods <sup>4)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from areas of food production and food trade</b> <sup>1)</sup>	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and serological confirmation	Standardized methods <sup>4)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from areas of food production and food trade</b> <sup>1)</sup> <b>Drinking water, surface water, pool water, water</b>	Enumeration of microorganisms <sup>2)</sup> Colony count technique (pour plate method)	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b>	Most probable number of microorganisms <sup>2)</sup> Tube fermentation technique MPN	Standardized methods <sup>4)</sup>

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<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Drinking water, surface water, pool water, water</b>	Detection and enumeration of microorganisms <sup>2)</sup> Membrane filtration method	Standardized methods <sup>4)</sup>
<b>Environmental samples from areas of food production and food trade:</b> <b>- contact plates (surfaces)</b> <b>- agar plates (air)</b>	Enumeration of microorganisms <sup>2)</sup> Plate method	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>

Within the scope of the flexible scope of accreditation, it is allowed:

- 1) Adding the subject of testing within a group of subjects,
- 2) Adding the tested feature within the subject / groups of subjects and methods (testing technique),
- 3) Applying the updated and implemented new methods described in-house test procedures,
- 4) Applying the updated and implemented new methods described in the standardized methods.

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<b>Microbiology Laboratory Tychy</b> Goździków 1, 43-100 Tychy		
<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from areas of food production and food trade</b> <sup>1)</sup>	Detection of DNA specific for tested microorganism <sup>2)</sup> PCR method, Bax System	In-house test procedures <sup>3)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from areas of food production and food trade</b> <sup>1)</sup>	Enumeration of microorganisms <sup>2)</sup> Colony count technique (spread plate method)	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from areas of food production and food trade</b> <sup>1)</sup>  <b>Drinking water, surface water, pool water</b>	Enumeration of microorganisms <sup>2)</sup> Colony count technique (pour plate method)	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from areas of food production and food trade</b> <sup>1)</sup>	Detection of microorganisms <sup>2)</sup> Culturing method test-tube	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Detection of microorganism <sup>2)</sup> Culturing method test-tube with biochemical confirmation	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical confirmation	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and serological confirmation	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b> <b>Environmental samples from areas of food production and food trade</b> <sup>1)</sup>	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and microscopic confirmation	Standardized methods <sup>4)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b>	Most probable number of microorganisms <sup>2)</sup> Tube fermentation technique MPN	Standardized methods <sup>4)</sup>
<b>Drinking water, surface water, pool water, water</b>	Detection and enumeration of microorganisms <sup>2)</sup> Membrane filtration method	Standardized methods <sup>4)</sup>

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<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Environmental samples from areas of food production and food trade:</b> - contact plates (surfaces) - agar plates (air)	Enumeration of microorganisms <sup>2)</sup> Colony count technique	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
<b>Paper, cardboard, paper and cardboard products</b> <b>Plastic and rubber products</b> <b>Metal, glass and ceramics products</b> <b>Wood and wood products,</b> - swab from the surface limited with template - swab from surface unlimited with template	Enumeration of microorganisms <sup>2)</sup> Colony count technique (pour plate method)	Standardized methods <sup>4)</sup>
	Enumeration of microorganisms <sup>2)</sup> Colony count technique (spread plate method)	PN-EN ISO 6888-1 <sup>5)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method test-tube	PN-ISO 4831 <sup>5)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method test-tube with biochemical confirmation	PN-ISO 7251 <sup>5)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical confirmation	PN-EN ISO 11290-1 <sup>5)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and serological confirmation	PN-EN ISO 6579-1 <sup>5)</sup>
<b>Environmental samples from areas of food production and food trade</b> <sup>1)</sup>	Most probable number of microorganisms <sup>2)</sup> Tube fermentation technique MPN	Standardized methods <sup>4)</sup>

Within the flexible scope of accreditation, it is allowed:

- 1) Adding the subject of testing within the group of subjects,
- 2) Adding the tested feature within the subject/ groups of subjects and methods (testing technique),
- 3) Applying the updated and implemented new methods described in-house test procedures,
- 4) Applying the updated and implemented new methods described in the standardized methods,
- 5) Applying the updated methods described in the standardized methods.

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<b>Cosmetics Microbiology Laboratory</b> Goździków 1, 43-100 Tychy		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Paper, cardboard, paper and cardboard products</b>	Permeability of the antimicrobial components Culturing, diffusion method	PN-EN 1104:2019-02
<b>Cosmetics</b>	Effectiveness of antimicrobial protection of a cosmetic product Colony count technique (pour plate method)	PN-EN ISO 11930:2019-03
<b>Chemical disinfectants and antiseptics</b>	Effectiveness of disinfectants and antiseptics Hygienic hand washing method	PN-EN 1499:2013-07
	Effectiveness of disinfectants and antiseptics Rub method	PN-EN 1500:2013-07
	Effectiveness of disinfectants and antiseptics Test method on non-porous surfaces	PN-EN 13697+A1:2019-08
<b>Chemical products:</b> - raw materials and semi-finished products for cosmetics production - liquid detergents - hygiene articles with cellulose	Enumeration of aerobic mesophilic bacteria Colony count technique (pour plate method)	PN- EN ISO 21149:2017-07
	Enumeration of yeasts and moulds Range: Colony count technique (pour plate method)	PN- EN ISO 16212:2017-08
	Detection of <i>Candida albicans</i> in 10 g Culturing method test-tube with biochemical confirmation	PN- EN ISO 18416:2016-01
	Detection of <i>Pseudomonas aeruginosa</i> in 10 g Culturing method test-tube with biochemical confirmation	PN- EN ISO 22717:2016-01
	Detection of <i>Staphylococcus aureus</i> in 10 g Culturing method test-tube with biochemical confirmation	PN- EN ISO 22718:2016-01
	Detection of <i>Escherichia coli</i> in 10 g Culturing method test-tube with biochemical confirmation	PN- EN ISO 21150:2016-01

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<b>Flexible scope of accreditation</b> 1), 2), 3), 4), 5)		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Environmental samples from areas of cosmetics production and cosmetics trade</b> <sup>1)</sup> <b>Cosmetics</b>	Enumeration of microorganisms in a particular mass/volume of product in a specific/unspecific area of the surface <sup>2), 3)</sup> Colony count technique (pour plate method)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Cosmetics</b>	Detection of microorganisms in a particular mass/volume of product in a specific/unspecific area of the surface <sup>2)</sup> . Culturing method test-tube	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
	Detection of microorganisms in a particular mass/volume of product in a specific/unspecific area of the surface <sup>2)</sup> Culturing method test-tube with biochemical confirmation	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Environmental samples from areas of cosmetics production and cosmetics trade:</b> <b>- contact plates (surfaces)</b> <b>- agar plates (air)</b>	Enumeration of microorganisms in a specific area of the surface/volume of air <sup>2)</sup> Colony count technique	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Chemical disinfectants and antiseptics</b>	Effectiveness of disinfectants and antiseptics Quantitative suspension method	Standardized methods <sup>5)</sup>

Within the flexible scope of accreditation, it is allowed:

- 1) Adding the Subject of testing within the group of Subjects,
- 2) Adding the tested feature within the Subject / groups of Subjects and methods (testing technique),
- 3) Changing the measuring range of the test method,
- 4) Applying the updated and implemented new methods described in-house test procedures,
- 5) Applying the updated and implemented new methods described in the standardized methods.

The current "List of testing carried out in the framework of flexible scope" is made available to the public by the accredited body.

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<b>Microbiology Laboratory Szczecin</b> Ks. Stanisława Kujota 8, 70-605 Szczecin		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Fruit, vegetable and vegetable with meat products</b>	Shelf life Thermostatic test	PN-90/A-75052/03
<b>Meat and meat products</b>	Shelf life Thermostatic test	PN-A-82055-5:1994
<b>Fish and fishery products</b>	Shelf life Thermostatic test	PN-A-86732:1992
<b>Flexible scope of accreditation</b> <sup>1),2),3), 4), 5)</sup>		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Food<sup>1)</sup></b> <b>Feed</b> <b>Environmental samples from areas of food production and food trade:</b> - swab from the surface limited with template - swab from the surface unlimited with template	Detection of DNA specific for tested microorganism <sup>2)</sup> PCR method, Bax System	In-house test procedures <sup>5)</sup>
<b>Food <sup>1)</sup></b> <b>Feed</b> <b>Environmental samples from areas of food production and food trade:</b> - swab from the surface limited with template - swab from the surface unlimited with template	Enumeration of microorganisms <sup>2)</sup> Colony count technique (spread plate method)	Standardized methods <sup>4)</sup> In-house test procedures <sup>5)</sup>
<b>Food <sup>1)</sup> and feed</b> <b>Environmental samples from areas of food production and food trade<sup>1)</sup></b> <b>Water, drinking water, surface water, pool water</b>	Enumeration of microorganisms <sup>2)</sup> Colony count technique (pour plate method)	Standardized methods <sup>4)</sup> In-house test procedures <sup>5)</sup>
<b>Food <sup>1)</sup></b> <b>Feed</b> <b>Environmental samples from areas of food production and food trade:</b> - swab from the surface limited with template - swab from the surface unlimited with template	Detection of microorganisms <sup>2)</sup> Culturing method, test tubes	Standardized methods <sup>4)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method, test tubes with biochemical confirmation	Standardized methods <sup>4)</sup>
	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical confirmation	Standardized methods <sup>4)</sup>
	The most probable number of microorganisms <sup>2)</sup> Tube fermentation technique - MPN	Standardized methods <sup>4)</sup>
<b>Food <sup>1)</sup></b> <b>Feed</b> <b>Environmental samples from areas of food production and food trade<sup>1)</sup></b>	Detection of microorganisms <sup>2)</sup> Culturing method with biochemical and serological confirmation	Standardized methods <sup>4)</sup>

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<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Drinking water, surface water, pool water, water</b>	Detection and enumeration of microorganisms <sup>2)</sup> Membrane filtration method	Standardized methods <sup>4)</sup>
<b>Microorganisms strains</b>	Taxonomic identification of microorganisms <sup>2)</sup> Biochemical, immunochemical, PCR, microscopic method	PB-251 <sup>3)</sup>
<b>Environmental samples from areas of food production and food trade:</b> <b>- contact plates (surfaces)</b> <b>- agar plates (air)</b>	Enumeration of microorganisms <sup>2)</sup> Colony count technique	Standardized methods <sup>4)</sup> In-house test procedures <sup>5)</sup>

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- 2) Adding the tested feature within the subject / groups of subjects and methods (testing technique),
- 3) Applying the updated methods described in-house test procedures,
- 4) Applying the updated and implemented new methods described in the standardized methods ,
- 5) Applying the updated and implemented new methods described in-house test procedures.

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<b>Sensory Analysis Laboratory</b> Helska 8, 81-056 Gdynia		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Tea and coffee, Food concentrates, Meat and meat products, Milk and dairy products, Non-alcoholic beverages (carbonated and non-carbonated soft drinks, juices and syrups), Spirits and alcoholic beverages, Fruits, vegetables, fruit and vegetable products and vegetable with meat products, Fish and fishery products and seafood, Sweets and sugar confectionery, Herbal raw materials and products, spices, Foodstuffs for particular nutritional uses, Animal and vegetable fats and oils, Cereals and cereal products, Frozen products, Ready-made culinary products, Poultry and poultry products, Dietary supplements and nutritional foods, Drinking water, Food additives</b>	Determining perceptible sensory difference between samples  Triangle testing  Organoleptic attributes: appearance, colour, texture, consistency, odour, flavour	ISO 4120:2004 PN-EN ISO 4120:2007
	Determining perceptible sensory difference between samples.  Paired comparison test  Organoleptic attributes: appearance, colour, texture, consistency, odour, flavour	ISO 5495:2005+Cor1:2006+ Amd1:2016 PN-EN ISO 5495:2007
<b>Tea and coffee, Food concentrates, Milk and dairy products, Non-alcoholic beverages (carbonated and non-carbonated soft drinks, juices and syrups), Spirits and alcoholic beverages, Fruits, vegetables, fruit and vegetable products and vegetable with meat products, Sweets and sugar confectionery, Foodstuffs for particular nutritional uses, Cereals and cereal products</b>	Establishing sensory profiles Quantitative descriptive profile and deviation from reference profile	PN-EN ISO 13299:2016-05
<b>Electrical products intended to come into contact with food, ceramic materials and products intended to come into contact with food, glass materials and products, paper, cardboard, packaging materials and components intended to come into contact with food, plastics and rubber products intended to come into contact with food, packaging materials, food storage products, non-woven fabric, toothpicks intended to come into contact with food</b>	Odour and taste transferred in direct contact Range: 0 - 4 Multicomparison test	DIN 10955:2004 PN-EN 1230-1:2009 PN-EN 1230-2:2009

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Reclosable packages designated as resistant to opening by children</b>	Opening easiness Test with participants Full and sequential method	PN-EN ISO 8317:2016-03
<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4)</sup>		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Food and agricultural products</b> <sup>1)</sup>	Organoleptic attributes <sup>2)</sup> Method: Simple descriptive test	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
<b>Cosmetics and chemical products</b> <sup>1)</sup>		
<b>Food</b> <sup>1)</sup>	Organoleptic attributes <sup>2)</sup> Scoring method	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>

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<b>Vitamin Analysis Laboratory</b> Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Agriculture products, including animal feedstuffs, Food concentrates, Non-alcoholic beverages, Milk and dairy products, Foodstuffs for particular nutritional uses, Dietary supplements and nutritional foods, Food additives</b>	Taurine content Range: (0,002 – 0,5) % High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	PB-52/HPLC ed. II of 30.12.2008
<b>Agriculture products, including animal feedstuffs, Food concentrates, Non-alcoholic beverages, Milk and dairy products, Fruits, vegetables, fruit and vegetable products and vegetable with meat products, Fish and fishery products and seafood, Herbal raw materials and products, spices, Foodstuffs for particular nutritional uses, Cereals and cereal products, Dietary supplements and nutritional foods, Food additives</b>	Tryptophan content Range: (0,001 – 7,0) % High performance liquid chromatography method with fluorescence detection (HPLC-FLD)	PB-136/HPLC ed. I of 06.02.2012
<b>Agriculture products, including animal feedstuffs, Food concentrates, Meat and meat products, Milk and dairy products, Non-alcoholic beverages, Fruits, vegetables, fruit and vegetable products and vegetable with meat products, Fish and fishery products and seafood, Sweets and sugar confectionery, Herbal raw materials and products, spices, Foodstuffs for particular nutritional uses, Cereals and cereal products, Frozen products, Ready-made culinary products, Poultry and poultry products, Eggs and egg products, Dietary supplements and nutritional foods, Food additives</b>	Amino acids profile Range: Aspartic acid (0,005 – 10) % Glutamic acid (0,005 – 10) % Serine (0,005 – 10) % Glycine (0,005 – 10) % Histidine (0,005 – 10) % Arginine (0,005 – 10) % Threonine (0,005 – 10) % Alanine (0,005 – 10) % Proline (0,005 – 10) % Tyrosine (0,005 – 10) % Valine (0,005 – 10) % Methionine (0,005 – 10) % Cysteine (0,005 – 10) % Isoleucine (0,005 – 10) % Leucine (0,005 – 10) % Phenylalanine (0,005 – 10) % Lysine (0,005 – 10) % High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	PB-53/HPLC ed. II of 30.12.2008
<b>Meat and meat products, Fish and fishery products and seafood, Non-alcoholic beverages, Food concentrates, Cereals and cereal products, Sweets and sugar confectionery</b>	Content of isoascorbic acid and their salts, as isosascorbic acid Range: (1,0 – 20000) mg/100 g High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	PB-312/HPLC ed. I of 18.05.2015

<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Agricultural products</b> <sup>1)</sup> <b>Food</b> <sup>1)</sup>	Vitamins content <sup>2), 3)</sup> High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis), diode array detection (HPLC-DAD) and fluorescence detection (HPLC-FLD)	Standardized methods <sup>4)</sup> In-house test procedures <sup>5)</sup>
<b>Food</b> <sup>1)</sup> <b>Feed</b>	Vitamins content <sup>2), 3)</sup> Microbiological method with microorganism as a test organism	In-house test procedures <sup>5)</sup>

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<b>Liquid Chromatography Laboratory</b> Chwaszczyńska 180, 81-571 Gdynia		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Coffee</b>	Caffeine content Range: (0,05 – 10) % High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	PN-ISO 10095:1997
<b>Coffee and products containing coffee</b>	Caffeine content Range: (0,05 – 10) % High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	ISO 20481:2008
<b>Milk and dairy products</b>	Rennet whey content Range: (1 – 16) % High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	Commission Regulation (EC) 150/2018, Annex III
<b>Meat and meat products</b>	Nitrates and / or nitrites content Range: nitrates (5,0 - 500) mg/kg nitrites (1,0 - 500) mg/kg High performance ion chromatography (IC) method with ultraviolet detection	PB-363/HPLC ed. III of 08.02.2018
<b>Fruits and vegetables</b>	Nitrates and / or nitrites content Range: nitrates (5,0 – 5000) mg/kg nitrites (5,0 – 3000) mg/kg High performance ion chromatography (IC) method with ultraviolet detection	PB-363/HPLC ed. III of 08.02.2018
<b>Oilseeds</b>	Glucosinolates content Range: (2 – 100) µmol/g High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	PN-EN ISO 9167-1/A1:2013-10
<b>Non-alcoholic beverages</b>	Caffeine concentration Range: (1 – 1000) mg/l High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	PB-80/HPLC ed. I of 12.01.2009
<b>Animal feedstuffs</b> <b>Meal</b>	Glucosinolates content Range: (2 – 100) µmol/g High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	PN-ISO 10633-1:2000

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Water, Drinking water</b>	Polycyclic aromatic hydrocarbons (PAH) concentration Range: Benzo(b)fluoranthene (0,0020 - 0,020)µg/l Benzo(k)fluoranthene (0,0020 - 0,020) µg/l Benzo(a)pyrene (0,0025 - 0,020)µg/l Benzo(ghi)perylene (0,0040 - 0,020)µg/l Indeno(1,2,3-cd)pyrene (0,0040 - 0,020)µg/l High performance liquid chromatography method with fluorescence detection (HPLC-FLD)	PN-EN ISO 17993:2005
<b>Alcoholic beverages</b>	Denatonium benzoate (bitrex) concentration Range: (0,1 – 10) g/100 l and calculated on 100% ethyl alcohol High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	PB-82/HPLC ed. I of 01.02.2009
<b>Spirits and alcoholic beverages</b>	Phthalate content: Range: Butyl benzyl phthalate (BBP) (0,5 – 25) mg/kg Dibutyl phthalate (DBP) (0,3 – 25) mg/kg Di(2-ethylhexyl) phthalate (DEHP) (0,5 – 25) mg/kg Diisononyl phthalate (DINP) (1,0 – 25) mg/kg High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	PB-185/HPLC ed. II of 21.10.2014

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<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5), 6), 7)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Agricultural products</b> <sup>1)</sup> <b>Food</b> <sup>1)</sup>	Sugars and polyols content <sup>2), 3)</sup> High performance liquid chromatography method with refractometric detection (HPLC-RID)	PB-79/HPLC <sup>5)</sup>
<b>Food</b> <sup>1)</sup>	Food additives content <sup>2), 3)</sup> High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	PN-EN 12856 <sup>4)</sup>
<b>Food</b> <sup>1)</sup>	Polycyclic aromatic hydrocarbons (PAHs) content <sup>2), 3)</sup> High performance liquid chromatography method with fluorescence detection (HPLC-FLD)	PB-117/HPLC <sup>5)</sup>
<b>Agricultural products</b> <sup>1)</sup> <b>Food</b> <sup>1)</sup>	Mycotoxins content <sup>2), 3)</sup> High performance liquid chromatography method with fluorescence detection (HPLC-FLD) spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	Standardized methods <sup>6)</sup> In-house test procedures <sup>7)</sup>
<b>Food</b> <sup>1)</sup> <b>Agriculture products, including animal feedstuffs</b>	Mycotoxins content <sup>2), 3)</sup> High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS)	In-house test procedures <sup>7)</sup>
<b>Food</b> <sup>1)</sup>	Nitrates and/or nitrites content <sup>2)3)</sup> High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis), diode array detection (HPLC-DAD)	Standardized methods <sup>6)</sup>
<b>Feed</b> <b>Food</b> <sup>1)</sup>	Biogenic amins content <sup>2), 3)</sup> High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	Standardized methods <sup>6)</sup> In-house test procedures <sup>7)</sup>

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<b>Gas Chromatography Laboratory</b> Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Agriculture products, including animal feedstuffs, Foodstuffs for particular nutritional uses, Animal and vegetable fats and oils Cereals and cereal products, Food additives, Products used in animal nutrition</b>	Antioxidants BHA, BHT content Range: (10 – 500) mg/kg Gas chromatography method with flame ionization detection (GC-FID)	ISO 6463:1982 PB-277/GC ed. I of 01.07.2014
<b>Milk fat and dairy products</b>	Foreign fats content Range: (2,0 – 100) % Gas chromatography method with flame ionization detection (GC-FID)	PN-EN ISO 17678:2019-07
<b>Milk and dairy products Meat products Sauces Chocolate goods Pastry goods Food concentrates</b>	Lactose content Range: (0,01 – 1,0) g/100g Gas chromatography method with flame ionization detection (GC-FID)	PB-371 ed. II of 04.03.2019
<b>Agriculture products, including animal feedstuffs, Animal and vegetable fats and oils, oilseeds</b>	Residual technical hexane content. Range: (0,5 – 1400) mg/kg Gas chromatography method with headspace analysis and flame ionization detection (HS-GC-FID)	PN-EN ISO 9832:2004 PN-EN ISO 8892:1999
<b>Cocoa butter Chocolate couverture Chocolate</b>	Cocoa butter equivalents (CBE) and milk fat (MF) content based on triacylglycerols composition Range: CBE: (2 – 100) g/100 g of fat MF: (1 – 100) g/100 g of fat Gas chromatography method with flame ionization detection (GC-FID)	PN-EN ISO 23275-1:2009 PN-EN ISO 23275-2:2010 EUR 20831:2003, EUR 22666:2007
<b>Agriculture products, including animal feedstuffs, Meat and meat products, Milk and dairy products, Fish and fishery products and seafood, Animal and vegetable fats and oils Frozen products, Ready-made culinary products, Poultry and poultry products Carcasses, clippings from carcass,</b>	Pesticides content α-HCH β-HCH γ-HCH δ-HCH HCB o,p'-DDT o,p'-DDE o,p'-DDD p,p'-DDT p,p'-DDE p,p'-DDD dieldrin endrin aldrin heptachlor heptachlor epoxide cis-chlordane trans-chlordane Range: (0,01 – 0,10) mg/kg of fat Gas chromatography method with electron capture detection (GC-ECD)	PN-EN 1528:2000/1 PN-EN 1528:2000/2 PN-EN 1528:2000/3 method D PN-EN 1528:2000/4

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Liquid fuels: unleaded petrol Liquid petroleum products</b>	Organic oxygenate compounds and organically bound oxygen concentration Range: oxygenate compounds (0,17 – 15) % (m/m) organically bound oxygen (0,1 – 3,7) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	PN-EN 13132:2005
	Benzene concentration Range: (0,05 – 6) % (v/v) Gas chromatography method with flame ionization detection (GC-FID)	PN-EN 12177:2003
<b>Liquid fuels: fatty acids methyl esters (FAME)</b>	Esters and particular fatty acids methyl esters content including linoleic acid methyl ester Range: Total ester content             (80 – 100) % particular esters                 (0,1 – 70) % Gas chromatography method with flame ionization detection (GC-FID)	PN-EN 14103:2012
<b>Animal and vegetable fats and oils</b>	Free and bound 2-MCPD, free and bound 3-MCPD and glycidyl esters content Range: 2-monochloropropano-1,3-diol (2-MCPD) (0,15 – 2,5) mg/kg 3-monochloropropano-1,2-diol (3-MCPD) (0,15 – 2,5) mg/kg 3-monochloropropano-1,2-diol (3-MCPD) including glycidol (0,15 – 2,5) mg/kg Gas chromatography method with mass spectrometry (GC-MS) Glycidol content (calculated)	DGF C-VI 18 (10) Part A, Part B
<b>Pastry goods and confectionery, Cereal and potato snacks</b>	Free and bound 2-MCPD, free and bound 3-MCPD and glycidyl esters in extracted fat content Range: 2-monochloropropano-1,3-diol (2-MCPD) (0,15 – 2,5) mg/kg fat 3-monochloropropano-1,2-diol (3-MCPD) (0,15 – 2,5) mg/kg fat 3-monochloropropano-1,2-diol (3-MCPD) including glycidol (0,15 – 2,5) mg/kg fat Gas chromatography method with mass spectrometry (GC-MS) Per product (calculated) Glycidol content (calculated)	DGF C-VI 18 (10) Part A, Part B

Flexible scope of accreditation <sup>1), 2), 3), 4), 5), 6), 7)</sup>		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Products containing ethyl alcohol and other solvents <sup>1)</sup></b>	Organic compounds concentration <sup>2),3)</sup> Gas chromatography method with flame ionization detection (GC-FID)	Standardized methods <sup>7)</sup> In-house test procedures <sup>6)</sup>
<b>Agriculture products <sup>1)</sup>, including feed Food<sup>1)</sup></b>	Sterols content <sup>2), 3)</sup> Gas chromatography method with flame ionization detection (GC-FID)	Standardized methods <sup>7)</sup> In-house test procedures <sup>6)</sup>
	Fatty acids content <sup>2), 3)</sup> Gas chromatography method with flame ionization detection (GC-FID) Sum (calculated)	Standardized methods <sup>7)</sup> In-house test procedures <sup>6)</sup>
<b>Agriculture products, including animal feedstuffs <sup>1)</sup> Food<sup>1)</sup></b>	Pesticides residues content <sup>2), 3)</sup> Gas chromatography method with electron capture detection (GC-ECD), mass spectrometry detection (GC-MS), tandem mass spectrometry detection (GC-MS-MS)	Standardized methods <sup>7)</sup> In-house test procedures <sup>6)</sup>
	Pesticides residues content <sup>2), 3)</sup> High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS-MS)	Standardized methods <sup>7)</sup> In-house test procedures <sup>6)</sup>
	Dithiocarbamates content expressed as carbon disulphide <sup>2), 3)</sup> Headspace gas chromatography method with electron capture detection (HS-GC-ECD)	Standardized methods <sup>7)</sup> In-house test procedures <sup>6)</sup>
	Antibiotics and chemotherapeutics residues content <sup>2), 3)</sup> High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS)	Standardized methods <sup>7)</sup> In-house test procedures <sup>6)</sup>
	Antibiotics and chemotherapeutics residues content <sup>2), 3)</sup> Gas chromatography method with mass spectrometry (GC-MS)	Standardized methods <sup>7)</sup> In-house test procedures <sup>6)</sup>
	Melamine and its analogues content <sup>2), 3)</sup> High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS)	Standardized methods <sup>7)</sup> In-house test procedures <sup>6)</sup>
	<b>Herbs</b>	Pesticides residues content <sup>2), 3)</sup> Gas chromatography method with tandem mass spectrometry detection (GC-MS-MS)
Dithiocarbamates content expressed as carbon disulphide <sup>2), 3)</sup> Headspace gas chromatography method with electron capture detection (HS-GC-ECD)		PES/03 <sup>4)</sup>
<b>Food <sup>1)</sup></b>	Acrylamide content <sup>3)</sup> Gas chromatography method with mass spectrometry (GC-MS)	In-house test procedures <sup>6)</sup>

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Flexible scope of accreditation <sup>1), 2), 3), 4), 5), 6), 7)</sup>		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
Food <sup>1)</sup>	Mineral oils content (MOSH, MOAH) <sup>2),3)</sup> Gas chromatography method with flame ionization detection coupled with high performance liquid chromatography method (HPLC-GC-FID)	PN-EN 16995 <sup>5)</sup> PB-407 <sup>4)</sup>

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<b>Spectroscopy Laboratory</b> Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Tea and coffee</b> <b>Food concentrates</b> <b>Meat and meat products</b> <b>Milk and dairy products</b> <b>Non-alcoholic beverages</b> <b>Spirits and alcoholic beverages</b> <b>Fruits, vegetables, fruit and vegetable products and vegetable with meat products</b> <b>Fish and fishery products and seafood</b> <b>Sweets and sugar confectionery</b> <b>Herbal raw materials and products, spices,</b> <b>Foodstuffs for particular nutritional uses,</b> <b>Animal and vegetable fats and oils</b> <b>Cereals and cereal products</b> <b>Ready-made culinary products</b> <b>Eggs and egg products</b> <b>Dietary supplements and nutritional foods</b> <b>Animal feedstuffs</b> <b>Oilseeds</b>	Elements content Range: Pb (0,01 – 5,0) mg/kg Cr (0,01 – 5,0) mg/kg Cu (0,01 – 10,0) mg/kg Fe (0,01 – 50,0) mg/kg Cd (0,002 – 1,00) mg/kg Zn (0,05 – 50,0) mg/kg Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)	PB-68/ICP ed. III of 18.09.2012
<b>Tea and coffee</b> <b>Food concentrates</b> <b>Meat and meat products</b> <b>Milk and dairy products</b> <b>Non-alcoholic beverages</b> <b>Spirits and alcoholic beverages</b> <b>Fruits, vegetables, fruit and vegetable products and vegetable with meat products</b> <b>Fish and fishery products and seafood</b> <b>Sweets and sugar confectionery</b> <b>Herbal raw materials and products, spices,</b> <b>Foodstuffs for particular nutritional uses,</b> <b>Animal and vegetable fats and oils</b> <b>Cereals and cereal products</b> <b>Frozen products</b> <b>Ready-made culinary products</b> <b>Eggs and egg products</b> <b>Dietary supplements and nutritional foods</b> <b>Animal feedstuffs</b> <b>Oilseeds</b>	Elements content Range: As (0,09 – 35,7) mg/kg Se (0,29 – 62,5) mg/kg Sn (0,16 – 200) mg/kg Atomic emission spectrometry method with inductively coupled plasma (ICP-OES) Mercury content Range: (0,0006 – 10) mg/kg Atomic absorption spectrometry method with amalgamation technique	PB-49/ICP ed. III of 18.09.2012  PB-30/CVAAS ed. V of 18.09.2012
<b>Fatty acids methyl esters (FAME)</b>	Phosphorus content Range: (1,00 – 221) mg/kg Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)	PB-69/ICP ed. III of 18.09.2012

Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Meat and meat products</b>	Phosphorus content Range: (0,1 – 10) g/kg Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)	PN-A-82060:1999
	Added phosphorus content expressed as P <sub>2</sub> O <sub>5</sub> (calculated)	
<b>Fish and seafood</b>	Phosphorus content Range: (300 – 10000) mg/kg Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)	PB-317/ICP ed. II of 18.12.2019
	Added phosphorus content expressed as P <sub>2</sub> O <sub>5</sub> (calculated)	
<b>Animal and vegetable fats and oils</b>	Phosphorus content Range: (1,00 – 221) mg/kg Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)	PB-69/ICP ed. III of 18.09.2012

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Flexible scope of accreditation <sup>1), 2), 3), 4), 5)</sup>		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Water, sewage, soil, sediments, waste <sup>0)</sup> group code:</b> <b>19 08 01, 17 01 82, 17 03 80</b>  <b>Aqueous extract prepared from waste in Environmental Analysis Laboratory Malaszewicze <sup>DAB-11</sup> and aqueous extract from waste <sup>0)</sup> group code:</b> <b>19 08 01, 19 08 02, 19 08 05, 17 01 82, 17 03 80</b>  <b>Waste<sup>1) 0)</sup> group code: 04 02, 10 12, 17 05, 19 08, 19 09, 19 12, 17 01, 17 02, 17 08, 17 09, 19 06, -19 05, 02 02, 02 03, 03 01, 10 01, 19 01</b>	Concentration/ content of elements <sup>2), 3)</sup> Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
	Concentration/ content of mercury <sup>3)</sup> Atomic absorption spectrometry method with mercury cold-vapor generation (CVAAS)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Food <sup>1)</sup></b> <b>Water, sewage, soil, sediments</b> <b>Agriculture products, including animal feedstuffs</b>	Concentration/ content of elements <sup>2), 3)</sup> Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Food <sup>1)</sup></b>	Concentration/ content of elements <sup>2), 3)</sup> Flame atomic absorption spectroscopy method (FAAS)	In-house test procedures <sup>4)</sup>
<b>Food <sup>1)</sup></b>	Content of elements <sup>2), 3)</sup> Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)	PB-36/ICP <sup>6)</sup>
	NaCl content (calculated)	
	P <sub>2</sub> O <sub>5</sub> content (calculated)	

<sup>0)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

Within the flexible scope of accreditation, it is allowed:

- 1) Adding the subject of testing within the group of subjects,
- 2) Adding the tested feature within the subject / group of subjects and method (testing technique),
- 3) Change in the measuring range of the test method,
- 4) Applying the updated and implemented new methods described in-house test procedures,
- 5) Applying the updated and implemented new methods described in the standardized methods,
- 6) Applying the updated methods described in-house test procedures.

The current "List of testing carried out in the framework of flexible scope" is made available to the public by the accredited body.

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<b>Dioxin Analysis Laboratory</b> Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Agriculture products, including animal feedstuffs, Additives for feedstuffs, Milk and dairy products, Fish and fishery products and seafood, Animal and vegetable fats and oils, Oilseeds, Cereals and cereal products, Poultry and poultry products, Carcasses, clippings from carcass, Meat and meat products</b>	Content: - polychlorinated dibenzo-p-dioxins (PCDD): 2,3,7,8-TCDD 1,2,3,7,8-PeCDD 1,2,3,4,7,8-HxCDD 1,2,3,6,7,8-HxCDD 1,2,3,7,8,9-HxCDD 1,2,3,4,6,7,8-HpCDD Range: (0,05 – 80) pg/g fat (0,05 – 20) pg/g OCDD Range: (0,1 – 80) pg/g fat (0,1 – 20) pg/g - polychlorinated dibenzofurans (PCDF): 2,3,7,8-TCDF 1,2,3,7,8-PeCDF 2,3,4,7,8-PeCDF 1,2,3,4,7,8-HxCDF 1,2,3,6,7,8-HxCDF 2,3,4,6,7,8-HxCDF 1,2,3,7,8,9-HxCDF 1,2,3,4,6,7,8-HpCDF 1,2,3,4,7,8,9-HpCDF Range: (0,05 – 80) pg/g fat (0,05 – 20) pg/g OCDF Range: (0,1 – 80) pg/g fat (0,1 – 20) pg/g - dioxin-like polychlorinated biphenyls (dl-PCB): PCB-081 PCB-077 PCB-126 PCB-169 Range: (0,05 – 80) pg/g fat (0,05 – 20) pg/g PCB-123 PCB-118 PCB-114 PCB-105 PCB-167 PCB-156 PCB-157 PCB-189 Range: (10 – 16000) pg/g fat (10 – 4000) pg/g Gas chromatography method with high-resolution mass spectrometry (GC-HRMS)	PB-408 ed. I of 05.10.2020

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Agriculture products, including animal feedstuffs, Additives for feedstuffs, Milk and dairy products, Fish and fishery products and seafood, Animal and vegetable fats and oils, Oilseeds, Cereals and cereal products, Poultry and poultry products, Carcasses, clippings from carcass, Meat and meat products</b>	Content: - indicator polychlorinated biphenyls (ndl-PCB) PCB-028 PCB-052 PCB-101 PCB-153 PCB-138 PCB-180 Range: (0,1 – 16) ng/g fat (0,1 – 4) ng/g Range of polychlorinated dibenzo-p-dioxins (PCDD), polychlorinated dibenzofurans (PCDF), dioxin-like polychlorinated biphenyls (dl-PCB), indicator polychlorinated biphenyls (ndl-PCB) expressed in toxic equivalents TEQ: Sum of WHO-PCDD/F/dl-PCB-TEQ (0,167 – 267) pg/g fat (0,167 – 66,8) pg/g Sum of WHO-PCDD/F-TEQ (0,158 – 252) pg/g fat (0,158 – 63) pg/g Sum of WHO-dl-PCB-TEQ (0,009 – 14,3) pg/g fat (0,009 – 3,57) pg/g Range: Sum of ndl-PCB (0,60 – 96) ng/g fat (0,60 – 24) ng/g Gas chromatography method with high-resolution mass spectrometry (GC-HRMS)	PB-408 ed. I of 05.10.2020

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<b>Classical Analysis Laboratory</b> Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Foodstuffs for particular nutritional uses</b> <b>Sweets and sugar confectionery</b> <b>Non-alcoholic beverages (carbonated and non-carbonated soft drinks, juices, syrups),</b> <b>Spirits and alcoholic beverages,</b> <b>Tea and coffee</b> <b>Animal and vegetable fats and oils</b> <b>Milk and dairy products,</b> <b>Dietary supplements and nutritional foods</b> <b>Food additives</b> <b>Meat and meat products,</b> <b>Fish and fishery products and seafood,</b> <b>Ready-made culinary products,</b> <b>Poultry and poultry products,</b> <b>Eggs and egg products</b> <b>Food concentrates</b> <b>Fruits, vegetables, fruit and vegetable products and vegetable with meat products</b> <b>Herbal raw materials and products, spices</b> <b>Frozen products</b> <b>Oilseeds</b> <b>Cereals and cereal products</b>  <b>Animal feedstuffs</b>	Kjeldahl nitrogen content Range: (0,05– 14,5) % Protein content Range: (0,3 – 93,0) % Titrimetric method	PB-116 ed. III of 11.08.2020
<b>Milk and dairy products</b>	Kjeldahl nitrogen content Range: (0,3 – 14,5) % Protein content Range: (2,0 – 93,0) % Titrimetric method	PN-EN ISO 8968-3:2008
<b>Cereals and cereal products</b>	Kjeldahl nitrogen content Range: (1,3 – 12,0) % Protein content Range: (8,0 – 75,0) % Titrimetric method	PN-EN ISO 20483:2014-02
<b>Tea and coffee</b> <b>Food concentrates,</b> <b>Meat and meat products,</b> <b>Non-alcoholic beverages (carbonated and non-carbonated soft drinks, juices, syrups),</b> <b>Fruits, vegetables, fruit and vegetable products and vegetable with meat products,</b> <b>Sweets and sugar confectionery</b> <b>Foodstuffs for particular nutritional uses,</b> <b>Frozen products,</b> <b>Dietary supplements and nutritional foods</b>	Vitamin C content Range: (10,0 – 100,0) mg/100 g Titrimetric method	PN-A-04019:1998 p. 2
<b>Milk and dairy products,</b> <b>Ready-made culinary products</b>	Vitamin C content Range: (10,0 – 30,0) mg/100 g Titrimetric method	

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Non-alcoholic beverages</b> <b>Spirits and alcoholic beverages</b> <b>Milk and dairy products</b> <b>Meat and meat products</b> <b>Fish and fishery products and seafood</b> <b>Eggs and egg products</b> <b>Food concentrates</b> <b>Animal and vegetable fats and oils</b> <b>Ready-made culinary products</b> <b>Fruits, vegetables, fruit and vegetable products and vegetable with meat products</b> <b>Sugar confectionery</b> <b>Cereals and cereal products</b> <b>Bread and bakery products</b> <b>Dietary supplements and nutritional foods</b> <b>Herbal raw materials and products, spices,</b> <b>Oilseeds</b> <b>Feed</b>	Dietary fibre content Range: (0,5 – 50) % Gravimetric method	AOAC 991.43:1994
<b>Food concentrates</b> <b>Meat and meat products</b> <b>Fish and fishery products and seafoods</b> <b>Ready-made culinary products, Poultry and poultry products</b> <b>Milk and dairy products</b> <b>Cereals and cereal products</b> <b>Fruits, vegetables, fruit and vegetable products and vegetable with meat products</b> <b>Foodstuffs for particular nutritional uses</b> <b>Sweets and sugar confectionery</b> <b>Herbal raw materials and products, spices</b> <b>Animal and vegetable fats and oils</b> <b>Dietary supplements and nutritional foods</b> <b>Animal feedstuffs</b>	Water activity Range: (0,100 – 1,000) Vapour pressure method	PN-ISO 21807:2005
<b>Bioethanol</b> <b>Spirits</b>	Ethanol content (proof) at 20 °C Range: (60 – 99,9) % Gravimetric method	PN-A-79528-3:2007 p. 3
	Acidity (as acetic acid) Range: (0,003 – 0,030) g/l ethanol 100 % Titrimetric method	PN-A-79528-7:2001
	Dry residue after evaporation Range: (0,001 – 0,050) g/l Gravimetric method	PN-A-79528-12-2000

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Tea and coffee</b> <b>Food concentrates,</b> <b>Meat and meat products,</b> <b>Milk and dairy products,</b> <b>Non-alcoholic beverages</b> <b>(carbonated and non-carbonated soft drinks, juices, syrups),</b> <b>Spirits and alcoholic beverages,</b> <b>Oilseeds,</b> <b>Fruits, vegetables, fruit and vegetable products and vegetable with meat products,</b> <b>Fish and fishery products and seafood,</b> <b>Sweets and sugar confectionery,</b> <b>Herbal raw materials and products, spices,</b> <b>Foodstuffs for particular nutritional uses,</b> <b>Animal and vegetable fats and oils,</b> <b>Cereals and cereal products,</b> <b>Frozen products,</b> <b>Ready-made culinary products,</b> <b>Poultry and poultry products,</b> <b>Eggs and egg products,</b> <b>Carcasses, clippings from carcasses,</b> <b>Dietary supplements and nutritional foods,</b> <b>Food additives</b>	Energy Carbohydrates content (calculated)	Regulation (EU) No 1169/2011 of the Parliament and of the Council of 25 October 2011 FDA Nutrition Labelling Manual Guide to Food Labelling and Advertising (Canadian Food Inspection Agency)
<b>Casein</b>	Free acidity Range: (0,01 – 0,70) 0,1 mol/l NaOH/1 g Titrimetric method	ISO 5547:2008 IDF-FIL 91:2008 PN-ISO 5547:2010
<b>Caseinates</b>	Insolubility index (solubility) Range: (0,1 – 3,0) ml Centrifuge method	ISO 8156:2005 IDF-FIL 129:2005
<b>Casein and caseinates</b>	Scorched particles Range: A – D Filtration method	ISO 5739:2003 IDF-FIL 107:2003 PN-ISO 5739:2010
<b>Alcoholic beverages: beer</b>	Alcohol content Range: (0,2 – 10,0) % (v/v) Gravimetric method	PN-A-79093-2:2000+Ap1:2002
<b>Milk</b>	Peroxidase activity (qualitative test)	PB-22 ed. III of 04.02.2009
<b>Fish and fishery products and seafood</b>	Total volatile bases nitrogen (TVB-N) content Range: (4,0 – 150,0) mg N/100 g Titrimetric method	PN-A-86791:1995
<b>Liquid fuels: fatty acids methyl esters (FAME)</b>	Acid value Range: (0,01 – 1,0) mg KOH/g Titrimetric method	PN-EN 14104:2004
	Iodine value Range: 50 – 200 Titrimetric method	PN-EN 14111:2004
<b>Food concentrates</b> <b>Cereal crisps</b>	Chlorides content Range: (0,1 – 40) % Titrimetric method	PN-A-79011-7:1998

Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Butter, milk products intended to spread</b>	Chlorides content Range: (0,1 – 5) % Titrimetric method (Mohr)	ISO 1738:2004 IDF-FIL 12:2004
	Fat acidity Range: (0,1 – 2,0) mmol/100g Titrimetric method	ISO 1740:2004 IDF-FIL 6:2004
<b>Milk products: buttermilk powder</b>	Acidity Range: (0,01 – 0,2) % Titrimetric method	ADPI , Section 1, 2016
	Insolubility index (solubility) Range: (0,1 – 3,0) ml Centrifuge method	ISO 8156:2005 IDF-FIL 129:2005
<b>Dried milk</b>	Acidity Range: (0,08 – 0,2) % Titrimetric method	ADPI , Section 1, 2016
	Acidity Range: from 8,0 ml 0,1 mol/l NaOH/10 g non-fat dry matter to 20 ml 0,1 mol/l NaOH/10 g non-fat dry matter Titrimetric method	PN-ISO 6091:2012
	Phosphatase activity (qualitative test)	IDF-FIL/RM 82:2004 ISO/TS 6090:2004
	Insolubility index (solubility) Range: (0,1 – 3,0) ml Centrifuge method	ISO 8156:2005 IDF-FIL 129:2005 ADPI , Section 1, 2016
	Purity index (scorched particles) Range: A – D Filtration method	ADPI , Section 1, 2016
<b>Dried milk</b>	WPN (assessment of heat treatment) Range: (1,0 – 7,3) mg/g N Spectrophotometric method	ADPI , Section 1, 2016
	Lactic acid and lactates content Range: (20 – 300) mg/100g Spectrophotometric method	PN-EN ISO 8069:2008 ISO 8069:2005 IDF 69:2005
<b>Bee honey</b>	Presence of starch Range: from 0,05% (Qualitative test)	Ministry of Agriculture and Rural Development Regulation of 14 January 2009, Annex p.XII 4.3, (Journal of Laws No. 17, item 94)
<b>Animal and vegetable fats and oils</b>	Insoluble impurities content Range: (0,01 – 0,5) % Gravimetric method	PN-EN ISO 663:2017-03 ISO 663:2017-03
	Anisidine value Range: 0,5 – 11,0 Spectrophotometric method	PN-EN ISO 6885:2016-04
<b>Fruits and vegetables, Fruit and vegetable preserves</b>	Sulphur dioxide content Range: (10 – 3000) mg/kg Titrimetric method	PN-90/A-75101/23+Az2:2002 PN-EN 13196:2002
	Total acidity as particular acid content Range: (0,1 – 2,5) % (m/m) Titrimetric method	PN-90/A-75101/04+Az1:2002
<b>Meat and meat products</b>	Meat content (calculated)	PB-282 ed. II of 06.09.2016

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Meat and meat products</b>	Salt content Range: (0,1 – 10) % Titrimetric method	PN-73/A-82112+Az1:2002
	Hydroxyproline content Range: (0,1 – 1,25) % Spectrophotometric method	PN-ISO 3496:2000 ISO 3496:1994
	Collagen content Range: (0,8 – 10) % Connective tissue content (ratio of collagen to protein content in meat) Range: (3 – 30) % (calculated)	Regulation (EU) No 1169/2011 of the European Parliament and of the Council of 25 October 2011
<b>Animal and vegetable fats and oils</b>	Peroxide value Range: (0,1 – 30) meq/kg Titrimetric method	PN-EN ISO 3960:2017-03 ISO 3960:2017-03
	Iodine value Range: (5 – 180) g/100 g Titrimetric method	PN-EN ISO 3961:2018-09
	Lovibond colour Range: Red units (0,1 – 20) Yellow units (0,1 – 70) Blue units (0,1 – 0,9) Neutral units (0,1 – 3) Colorimetric method	PN-ISO 15305:2001 ISO 15305:1998 AOCS Cc 13e-92:2002
	Conventional mass per volume (litre „weight“ in air) Range: (0,7000 – 1,0000) g/ml Gravimetric method	PN-EN ISO 6883:2017-03
	Free fatty acids content (acid value) Range: (0,01 – 8,0) % Titrimetric method	PN-EN ISO 660:2010
	<b>Feed, Sharps</b>	Crude fibre content (fibre) Range: (0,2 – 25) % Gravimetric method
Starch content Range: (1,0 – 80) % Polarimetric method		ISO 6493:2000 PN-R-64785:1994
<b>Fish and fishery products</b>	Salt content Range: (0,1 – 8,0) % Titrimetric method	PN-74/A-86739 PN-85/A-82100
	Total acidity Range: (0,5 – 4,0) % Titrimetric method	PN-74/A-86746 PN-85/A-82100
<b>Milk products: Dry whey</b>	Acidity Range: (0,05 – 2,0) % Titrimetric method	PB-25 ed. III of 04.02.2009
	Phosphatase activity (qualitative test)	IDF-FIL/RM 82:2004 ISO/TS 6090:2004
	Insolubility index (solubility) Range: (0,1 – 3,0) ml Centrifuge method	PB-26 ed. III of 04.02.2009
	Scorched particles Range: A – D Filtration method	PB-31 ed. III of 04.02.2009

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Milk products: Cheese</b>	Chlorides content Range: (0,2 – 6,0) % Potentiometric method	PN-EN ISO 5943:2007 ISO 5943:2006 IDF-FIL 88:2006
<b>Milk products: Dry cream</b>	Insolubility index (solubility) Range: (0,1 – 3,0) ml Centrifuge method	ISO 8156:2005 IDF-FIL 129:2005
<b>Milk products: Cream and sour cream</b>	Acidity Range: (0,2 – 30) °SH Titrimetric method	PN-78/A-86028+Az2:2002
<b>Ready-made culinary products Frozen culinary products</b>	Sodium chloride content Range: (0,5 – 5) % Titrimetric method	PN-85/A-82100
<b>Cereals - wheat</b>	Sedimentation index Range: (10 – 70) ml Zeleny test	PN-EN ISO 5529:2010
<b>Cereals and cereal products</b>	Falling number Range: (60 – 480) s Viscosimetric method	PN-EN ISO 3093:2010 ISO 3093:2009
<b>Milk and milk products, Alcoholic beverages, Non-alcoholic beverages, Liquid food concentrates, Liquid dietary supplements</b>	Density Range: (0,9700 – 1,3000) g/cm <sup>3</sup> Gravimetric method	PB-276 ed. I of 10.07.2014
<b>Fruit and vegetable products</b>	Total extract content Range: (4,0 – 40,0) % (m/m) Refractometric method	PN-A-75101-02:1990+Az1:2002 p. 2
<b>Non-alcoholic beverages</b>	Total extract content Range: (0,2 – 12,0) % (m/m) Refractometric method	PN-A-79033:1985 p.3.6.1
<b>Sugar confectionery</b>	Alcohol content Range: (0,05 – 5,5) g / 100g Pycnometric method	PN-A-88026:1981
<b>Vegetable and fruits juices, nectars</b>	Soluble substances content Range: (5,0 – 70,0)% (m/m) Refractometric method	PN-EN 12143:2000
	Relative density 20°C/20°C Range: (1,0000 – 1,1000) Gravimetric method	PN-EN 1131:1999
	Density Range: (1,0000 – 1,1000) g/cm <sup>3</sup> Gravimetric method	PN-EN 1131:1999 PB-276 ed. I of 10.07.2014 p. 7

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5), 6), 7), 8)</sup>		
<b>Food</b> <sup>1)</sup>	pH <sup>2)</sup> Potentiometric method	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Nitrites and nitrates content <sup>2)</sup> Spectrophotometric method	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Total sugars after inversion content <sup>2)</sup> Titrimetric method	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup>
	Carbohydrates content <sup>2), 8)</sup> Spectrophotometric method	ISO 5765 <sup>7)</sup> PB-265 <sup>6)</sup>
<b>Food</b> <sup>1)</sup> <b>Animal feedstuffs</b>	Fat content <sup>2)</sup> Gravimetric method	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup> Legislation <sup>5)</sup>
<b>Food</b> <sup>1)</sup> <b>Agriculture products, including animal feedstuffs</b>	Water and volatile matter content (dry matter) <sup>2)</sup> Gravimetric method	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup> Legislation <sup>5)</sup>
	Ash content <sup>2)</sup> Gravimetric method	Standardized methods <sup>4)</sup> In-house test procedures <sup>3)</sup> Legislation <sup>5)</sup>

Within the flexible scope of accreditation, it is allowed:

- 1) Adding the subject of testing within the group of subjects.
- 2) Changing the measuring range of the test method,
- 3) Applying the updated and implemented new methods described in-house test procedures,
- 4) Applying the updated and implemented new methods described in the standardized methods,
- 5) Applying the updated and implemented new methods described in the legislation,
- 6) Applying the updated methods described in-house test procedures,
- 7) Applying the updated methods described in the standardized methods,
- 8) Adding the tested feature within the subject/group of subjects and methods (testing technique).

The current "List of testing carried out in the framework of flexible scope" is made available to the public by the accredited body.

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<b>Non-Food and Packaging Laboratory</b> Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Household chemistry products: liquids and gels, powders, pastes, liquid soaps, shampoos</b>	Density Range: (0,860 – 1,300) g/cm <sup>3</sup> Gravimetric method	PN-92/C-04504 p. 4
	Dry residue Range: (0,1 – 60,0) % (m/m) Gravimetric method	PB-107 ed. I of 01.09.2010
	Dry organic residue Range: (0,1 – 60,0) % (m/m) (calculated)	
	Chloride content as NaCl Range: (0,1 – 10,0) % (m/m) Titrimetric method	PB-108 ed. I of 01.09.2010
	Anionic-active matter content Range: (0,50 – 30,00) % (m/m) Titrimetric method	PN-ISO 2271:2000
	pH Range: 1,0 – 12,0 Potentiometric method	PB-109 ed. I of 01.09.2010
	pH of 1% water solution Range: 2,0 – 12,0 Potentiometric method	
<b>Paper, cardboard, packaging materials Textile, fabrics and final products Toys</b>	Resistance to saliva Range: (1 – 5) Visual method	DIN 53160-1:2010-10
	Resistance to sweat Range: (1 – 5) Visual method	DIN 53160-2:2010-10
<b>Paper, cardboard and plastics</b>	Colour fastness Range: (1 – 5) Visual method	PN-EN 648:2019-03
	Screening of non-intentionally added substances (NIAS), migration to MPPO (Tenax) Range: (0,01 – 60,0) mg/kg Gas chromatography method with mass spectrometry detection and flame ionization detector (GC-MS-FID) and NIST14 library	PB-411 ed. I of 29.06.2020
<b>Paper, cardboard</b>	Formaldehyde content Range: (1,0 – 30) mg/kg (0,0010 – 3,0) mg/dm <sup>2</sup> Spectrophotometric method	PN-EN 1541:2003
	Grammage Range: (25,0 – 1000) g/m <sup>2</sup> Gravimetric method	PN-EN ISO 536:2012
	Moisture content Range: (0,05 – 60,0) % Gravimetric method	PN-EN ISO 287:2018-02
	Colour fastness Range: (1 – 5) Visual method	PN-EN 646:2019-03

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Paper, cardboard</b>	Primary aromatic amines content Range: (0,075 – 0,500) mg/kg Spectrophotometric method	PB-254 ed. II of 24.07.2014
	Benzophenone, 4-methylbenzophenone, 2- hydroxybenzophenone, 4- hydroxybenzophenone content Range: (0,02 – 10) mg/dm <sup>2</sup> Gas chromatography method with mass spectrometry (GC-MS)	PB-247/GC ed. I of 03.02.2014
	4,4'-bis(dimethyloamino)benzophenone and 4,4'-bis(diethyloamino)benzophenone content Range: (0,0016 – 0,0048) mg/dm <sup>2</sup> Gas chromatography method with mass spectrometry (GC-MS)	PB-252/GC ed. I of 03.02.2014
<b>Paper, fibre, cardboard</b>	Diisopropyl-naphthalene content Range: (0,6 – 10) mg/kg Gas chromatography method with mass spectrometry (GC-MS)	PN-EN 14719: 2006
	Pentachlorophenol content Range: (0,05 – 0,5) mg/kg Gas chromatography method with mass spectrometry (GC-MS)	PN-EN ISO 15320: 2011
<b>Tissue paper and tissue products</b>	Grammage Range: (15,0 – 85,0) g/m <sup>2</sup> Gravimetric method	PN-EN ISO 12625-6:2017-03
<b>Plastic materials and products intended to come into contact with food</b>	Overall migration into vegetable oils Range: (5,0 – 100,0) mg/dm <sup>2</sup> Gravimetric method	PN-EN 1186-2:2004 PN-EN 1186-4:2002 PN-EN 1186-6:2002 PN-EN 1186-8:2002 PN-EN 1186-10:2003
<b>Paper and cardboard materials and products</b>	Concentration of bisphenol A in aqueous extract Range: (0,010 – 5,0) µg/ml High performance liquid chromatography method with fluorescence detection (HPLC-FLD)  Bisphenol A content (calculated)	CEN/TS 13130-13:2005 IW-28/PNF ed. I of 21.09.2015
<b>Plastic, ink, lacquer, paper, glue, tapes, textiles, rubber and silicone Toys</b>	Migration of organic tin to simulants Range: methyl tin (0,2 – 15) mg/kg butyl tin (0,2 – 15) mg/kg tributyl tin (0,2 – 15) mg/kg n-octyl tin (0,2 – 15) mg/kg di-n-octyl tin (0,2 – 15) mg/kg dibutyl tin (0,2 – 15) mg/kg di-n-propyl tin (0,2 – 15) mg/kg tetrabutyl tin (0,2 – 15) mg/kg diphenyl tin (0,2 – 15) mg/kg triphenyl tin (0,2 – 15) mg/kg Gas chromatography method with mass spectrometry (GC-MS)	EN 71-3:2013+A3:2018
<b>Paper, cardboard, packaging materials Plastics and rubber products, Dyes, paints, lacquer, Toys</b>	Chromium (VI) content Range: (5,0 – 50,0) mg/kg Spectrophotometric method	PB-269 ed. I of. 02.06.2014

Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Materials and products intended to come into contact with food</b>	Migration of volatile organic compounds (VOC) to water Range: mg/l (mg/kg) 1-methoxy-2-propanol (0,0010 – 0,1) 2-butanol (0,0010 – 0,1) 2-ethoxyethanol (0,0010 – 0,1) acetone (0,0010 – 0,1) acetylacetone (0,0010 – 0,1) benzene (0,0005 – 0,1) n-butanol (0,0010 – 0,1) cyclohexane (0,0010 – 0,1) cyclohexanone (0,0010 – 0,1) dichloromethane (0,0010 – 0,1) ethanol (0,0010 – 0,1) ethoxypropanol (0,0010 – 0,1) ethylbenzene (0,0010 – 0,1) hexane (0,0010 – 0,1) heptane (0,0010 – 0,1) isophorone (0,0010 – 0,1) o-,p-, m-xylene isomers (0,0030 – 0,1) isopropanol (0,0010 – 0,1) methyl ethyl ketone (0,0010 – 0,1) methyl isobutyl ketone (0,0010 – 0,1) n-propanol (0,0010 – 0,1) 2-butoxyethyl acetate (0,0010 – 0,1) 2-ethoxyethyl acetate (0,0010 – 0,1) ethoxypropyl acetate (0,0010 – 0,1) ethyl acetate (0,0010 – 0,1) isobutyl acetate (0,0010 – 0,1) isopropyl acetate (0,0010 – 0,1) methoxypropyl acetate (0,0010 – 0,1) methyl acetate (0,0010 – 0,1) n-butyl acetate (0,0010 – 0,1) n-propyl acetate (0,0010 – 0,1) octane (0,0010 – 0,1) styrene (0,0010 – 0,1) tetrahydrofuran (0,0010 – 0,1) toluene (0,0005 – 0,1) Purge&Trap gas chromatography method with mass spectrometry detection (P&T-GC-MS)	PB-237/GC ed. II of 13.01.2014
<b>Plastic materials and products intended to come into contact with food</b>	Specific migration of formaldehyde into simulants Range: (1,5 – 30) mg/kg Spectrophotometric method with 2,4-pentanedione Specific migration of hexamethylenetetramine expressed as formaldehyde into simulants Range: (1,5 – 30) mg/kg Spectrophotometric method with 2,4-pentanedione	CEN/TS 13130-23:2005
<b>Melamine-formaldehyde mouldings</b>	Migration of extractable formaldehyde into simulants Range: (0,5 – 50) mg/kg Spectrophotometric method with 2,4-pentanedione	PN-EN ISO 4614:2005 PN-EN 13130-1:2006

Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Plastic materials and products, Paper, cardboard, rubber</b>	Plasticizers content: Range: tri n-butyl acetyl citrate (100 – 20000) mg/kg triethyl citrate (100 – 20000) mg/kg bis (2-ethylhexyl) adipate (100 – 20000) mg/kg dibutyl sebacate (100 – 20000) mg/kg bis (2-ethylhexyl) sebacate (100 – 20000) mg/kg Triacetin (100 – 20000) mg/kg Gas chromatography method with mass spectrometry (GC/MS)	PB-307/ GC ed. I of 04.05.2015
<b>Materials and products intended to come into contact with food</b>	Specific migration non intentionally added substances (NIAS) to 95 % ethanol Range: (0,01 – 50000) mg/kg Gas chromatography method with mass spectrometry (GC/MS)	PB-308/ GC ed. III of 15.05.2017
<b>Plastic and rubber materials and products</b>	Specific migration of N,N-bis(2-hydroxyethyl) alkil(C8-C18)amine into food simulants Range: (0,4 - 5) mg/kg of food simulant High performance liquid chromatography method with tandem mass spectrometry (HPLC-MSMS)	PB-341/LC ed. I of 12.09.2016
<b>Plastics, textiles</b>	Benzene content Range: (1,5-25) mg/kg Headspace gas chromatography method with mass spectrometry detection (HS-GC-MS)	PB-380 ed. I of 06.07.2018
<b>Plastics and rubber products intended to come into contact with food</b>	Specific migration of 2,6-di-tert-butyl-p-cresol (BHT) into food simulants Range: (1-25) mg/kg Gas chromatography method with mass spectrometry (GC-MS)	PB-385 ed. I of 26.10.2018
<b>Paper, cardboard, packaging materials</b>	Mineral oils content (MOSH, MOAH) Range: (0,5-600) mg/kg Gas chromatography method with flame ionization detection coupled with high performance liquid chromatography method (HPLC-GC-FID)	PB-390/GC ed. I of 30.01.2019
<b>Plastic products intended to come into contact with food</b>	Specific migration of 9,9-bis[methoxymethyl]-9H-fluorene into food simulants Range: (0,05 – 5,0) mg/kg Gas chromatography method with mass spectrometry (GC-MS)	PB-367 ed. II of 21.02.2018
	Specific migration of acetaldehyde into food simulants Range: (0,5-20) mg/kg Headspace gas chromatography method with flame ionization detection (HS-GC-FID)	PB-395 ed. I of 15.05.2019
	Specific migration of mineral oils (MOSH, MOAH) into food simulants Range: (0,3-100) mg/kg Gas chromatography method with flame ionization detection coupled with high performance liquid chromatography method (HPLC-GC-FID)	PB-369/GC ed. I of 09.04.2019

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Plastic products intended to come into contact with food</b>	Specific migration of 1,3,5-tris (3,5-di-tert-butyl-4-hydroxybenzyl)-1,3,5-triazine-2,4,6(1H, 3H, 5H)-trione into food simulants Range: (0,5-15) mg/kg High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis)	PB-300 ed. I of 10.08.2019
<b>Plastics and rubber products</b>	Short-chain chlorinated paraffins (SCCP) content Range: (50-2000) mg/kg Gas chromatography method with mass spectrometry (GC-MS)	PB-401/GC ed. I of 15.07.2019
<b>Toys, materials for toys, plastics</b>	Formaldehyde content in extract Range: (0,5 – 5,0) mg/kg Spectrophotometric method	PN-EN-71-11:2007
<b>Toys, materials for toys made of plastics</b>	Migration of monomers Range: acrylamide (0,01-0,5) mg/l phenol (1,0 -50,0) mg/l bisphenol A (0,01-0,5) mg/l Liquid chromatography method with tandem mass spectrometry and photodiode detection (LC-MS-MS/DAD/UV)	PN-EN 71-11:2007 IW-34/PNF ed. I of 24.04.2017
<b>Toys, materials for toys made of textiles, textiles</b>	Formaldehyde content Range: (16– 3500) mg/kg Spectrophotometric method	PN-EN ISO 14184-1:2011

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>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</b>	Elements content Range: Al (50 – 3000) mg/kg Sb (5,0 – 3000) mg/kg As (5,0 – 3000) mg/kg Ba (50 – 3000) mg/kg B (50 – 3000) mg/kg Cd (5,0 – 3000) mg/kg Cr <sub>total</sub> (5,0 – 3000) mg/kg Co (5,0 – 3000) mg/kg Cu (50 – 3000) mg/kg Pb (5,0 – 3000) mg/kg Mn (50 – 3000) mg/kg Hg (5,0 – 3000) mg/kg Ni (5,0 – 3000) mg/kg Se (5,0 – 3000) mg/kg Sr (50 – 3000) mg/kg Sn <sub>total</sub> (50 – 3000) mg/kg Zn (50 – 3000) mg/kg Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)	PN-EN 62321-4:2014-08+A1:2017-12PN-EN 62321-5:2014-08
	Concentration of polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE) in the solvent extract from material of an object Range: PBB (0,03 – 1,5)% PBDE (0,03 – 1,5)% Gas chromatography method with mass spectrometry (GC-MS) Polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE) content (calculated)	PN-EN 62321-6:2015-10
<b>Toys, materials for toys made with plastics, paper and textiles</b>	Dyes content Range: Disperse Blue 1 (4 – 10) mg/kg Disperse Blue 106 (4 – 10) mg/kg Disperse Blue 124 (4 – 10) mg/kg Disperse Orange 3 (4 – 10) mg/kg Disperse Orange 37 (4 – 10) mg/kg Solvent Yellow 1 (4-aminoazobenzen) (4 – 10) mg/kg Solvent Yellow 2 (4 – 10) mg/kg Solvent Yellow 3 (4 – 10) mg/kg Basic Red 9 (4 – 10) mg/kg Basic Violet 1 (4 – 10) mg/kg Basic Violet 3 (4 – 10) mg/kg Disperse Blue 3 (4 – 10) mg/kg Disperse Yellow 3 (4 – 10) mg/kg Disperse Red 1 (4 – 10) mg/kg Acid Red 26 (4 – 10) mg/kg Acid Violet 49 (4 – 10) mg/kg Liquid chromatography method with tandem mass spectrometry (LC-MS-MS)	PN-EN 71-11:2007 IW-37 ed. I of 01.09.2017

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Toys, materials for toys made of plastics	Migration of plasticizers Range: Triphenyl phosphate (0,01-10,0) mg/l Tri-2-tolyl phosphate (0,01-10,0) mg/l Tri-3-tolyl phosphate (0,01-10,0) mg/l Tri-4-tolyl phosphate (0,01-10,0) mg/l Gas chromatography method with mass spectrometry (GC-MS)	PN-EN 71-11:2007
	Migration of solvents Range: Trichloroethylene (0,004-0,07) mg/dm <sup>3</sup> Dichloromethane (0,01-0,2) mg/dm <sup>3</sup> Toluene (0,13-2,6) mg/dm <sup>3</sup> Ethylbenzene (0,09-1,7) mg/dm <sup>3</sup> o-xylene (0,09-1,7) mg/dm <sup>3</sup> sum of m-xylene and p-xylene (0,18-3,4) mg/dm <sup>3</sup> Cyclohexanone (0,09-1,7) mg/dm <sup>3</sup> Methanol (0,4-8) mg/dm <sup>3</sup> Headspace gas chromatography method with flame ionization detection (HS-GC-FID).	PN-EN 71-11:2007
	Migration of solvent Range: 2-methoxyethyl acetate (0,05-1,0) mg/dm <sup>3</sup> 2-ethoxyethanol (0,05-1,0) mg/dm <sup>3</sup> 2-ethoxyethyl acetate (0,05-1,0) mg/dm <sup>3</sup> bis (2-methoxyethyl) ether (0,05-1,0) mg/dm <sup>3</sup> 2-methoxypropyl acetate (0,05-1,0) mg/dm <sup>3</sup> styrene (0,1-2,0) mg/dm <sup>3</sup> isophorone (0,25-5,5) mg/dm <sup>3</sup> nitrobenzene (0,02-0,6) mg/dm <sup>3</sup> Gas chromatography method with mass spectrometry (GC-MS)	
Toys, materials for toys made with plastics, paper and fabrics	Content of flame retardants Range: Tris (2-chloroethyl) phosphate (1,0-200,0) mg/dm <sup>3</sup> Tri-o-tolyl phosphate (1,0-200,0) mg/dm <sup>3</sup> Pentabromodiphenyl ether (0,03-1,5)% Octabromodiphenyl ether (0,03-1,5)% Gas chromatography method with mass spectrometry (GC-MS)	PN-EN 71-11:2007 IW-35 ed. I of 28.06.2017

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Toys, materials for toys made of plastics, paper and fabrics</b>	Solvent content (inhalation) Range: 1,3,5-trimethylbenzene (0,1-3,0) µg in the sample benzene (0,1-3,0) µg in the sample cyclohexanone (0,1-3,0) µg in the sample dichloromethane (0,1-3,0) µg in the sample ethylbenzene (0,1-3,0) µg in the sample isophorone (0,1-3,0) µg in the sample n-hexane (0,1-3,0) µg in the sample nitrobenzene (0,1-3,0) µg in the sample o-xylene (0,1-3,0) µg in the sample sum of m-xylene and p-xylene (0,2-6,0) µg in the sample toluene (0,1-3,0) µg in the sample trichloroethylene (0,1-3,0) µg in the sample Headspace gas chromatography method with mass spectrometry detection (HS-GC-MS) Solvent emissions (calculated)	PN-EN 71-11:2007
<b>Paper, cardboard and plastic materials and products</b>	Elements content Al (50 – 500) mg/kg Sb (5,0 – 500) mg/kg As (5,0 – 500) mg/kg Ba (50 – 500) mg/kg B (50 – 500) mg/kg Cd (0,5 – 500) mg/kg Cr (total) (2,0 – 500) mg/kg Co (5,0 – 500) mg/kg Cu (50 – 500) mg/kg Pb (2,0 – 500) mg/kg Mn (50 – 500) mg/kg Hg (0,5 – 50) mg/kg Ni (5,0 – 500) mg/kg Se (5,0 – 500) mg/kg Sr (50 – 500) mg/kg Sn (total) (50 – 500) mg/kg Zn (50 – 500) mg/kg Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)	PB-233/ICP ed. II of 15.11.2017
<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5)</sup>		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Materials and products intended to come into contact with food</b> <sup>1)</sup>	Overall migration into food simulants <sup>2), 3)</sup> Gravimetric method	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Plastic and rubber materials and products</b> <sup>1)</sup>	Specific migration into food simulants <sup>2), 3)</sup> High performance liquid chromatography method with fluorescence detection (HPLC-FLD)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Plastic and rubber materials and products</b> <sup>1)</sup>	Specific migration into food simulants <sup>2), 3)</sup> High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>



Flexible scope of accreditation <sup>1), 2), 3), 4), 5), 6)</sup>		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
Plastic and rubber materials and products <sup>1)</sup>	Specific migration to food simulants <sup>2), 3)</sup> 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> In-house test procedures <sup>4)</sup>
Plastic and rubber materials and products <sup>1)</sup> Paper and cardboard materials and products <sup>1)</sup>	Polycyclic aromatic hydrocarbons content (PAH) and polychlorinated biphenyls content (PCB) <sup>2), 3)</sup> Gas chromatography method with mass spectrometry (GC-MS)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
Paper and cardboard materials and products, plastics and toys <sup>1)</sup>	Phthalates content <sup>2), 3)</sup> Gas chromatography method with mass spectrometry (GC-MS)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
Plastic and rubber materials and products <sup>1)</sup> Paper and cardboard materials and products <sup>1)</sup> Candles, paraffin, waxes	Volatile organic compounds and organic solvents content <sup>2), 3)</sup> Headspace gas chromatography method with flame ionization detection (HS-GC-FID), headspace gas chromatography method with mass spectrometry detection (HS-GC-MS)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
Packaging materials and products <sup>1)</sup>	Elements migration to simulants <sup>2), 3)</sup> Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
Toys	Elements migration <sup>2), 3)</sup> Mass spectrometry method by ionizing with inductively coupled plasma (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 Toys	Chromium (VI) content <sup>3)</sup> Coupling high-performance liquid chromatography method (LC) with an inductively coupled plasma mass spectrometry (LC-ICP-MS)	Standardized methods <sup>5)</sup>
Toys, materials for toys made with plastics, paper and fabrics <sup>1)</sup> Packing materials and products <sup>1)</sup>	Amins content <sup>2), 3)</sup> High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
Paper and cardboard materials and products <sup>1)</sup>	Specific migration to food simulants <sup>2), 3)</sup> High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS)	PB-413 <sup>6)</sup>

Within the flexible scope of accreditation, it is allowed:

- 1) Adding the subject of testing within the group of subjects,
- 2) Adding the tested feature within the subject / groups of subjects and methods (testing techniques),
- 3) Change in the measuring range of the test method,
- 4) Applying the updated and implemented new methods described in-house test procedures,
- 5) Applying the updated and implemented new methods described in the standardized methods,
- 6) Applying the updated methods described in-house test procedures.

The current "List of testing carried out in the framework of flexible scope" is made available to the public by the accredited body.

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<b>Environmental Analysis Laboratory Gdynia</b> Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Water, sewage</b>	pH Range: 3,0 – 10,0 Potentiometric method	PN-EN ISO 10523:2012
	Electrical conductivity Range: (10 – 3000) $\mu$ S/cm Conductometric method	PN-EN 27888:1999
	Sulphate (VI) concentration Range:(10 – 5000) mg/l Gravimetric method	PN-ISO 9280:2002
	Nitrates concentration Range: (0,20 – 70) mg/INO <sub>3</sub> (0,045 – 15,8) mg/l N- NO <sub>3</sub> Spectrophotometric method	PN-82/C-04576/08
	Nitrites concentration Range: (0,01 – 1,6) mg/l NO <sub>2</sub> (0,003 – 0,48) mg/l N-NO <sub>2</sub> Spectrophotometric method	PN-EN 26777:1999
	Total Suspended solids Range: (2–4000) mg/l Gravimetric method	PN-EN 872:2007+Ap1:2007
	Chemical oxygen demand (COD) Range:(30 – 10000) mg/l O <sub>2</sub> Titrimetric method	PN-ISO 6060:2006
	Biochemical oxygen demand (BOD <sub>5</sub> ) Range:(3 – 6000) mg/IO <sub>2</sub> Electrochemical method	PN-EN ISO 5815-1:2019-12
	Biochemical oxygen demand (BOD <sub>5</sub> ) Range: (0,5 – 6) mg/l O <sub>2</sub> Electrochemical method	PN-EN 1899-2:2002
	Permanganate index Range: (0,5 – 10) mg/l Titrimetric method	PN-EN ISO 8467:2001
	Fluoride concentration Range: (0,1 – 10) mg/l Potentiometric method	PN-78/C-04588/03
	Phenol index Range: (0,010 – 5,0) mg/l Spectrophotometric method	PN-ISO 6439:1994
	Kjeldahl nitrogen concentration Range: (0,50 – 1000) mg/l Titrimetric method	PN-EN 25663:2001
	Ammonium nitrogen concentration Range: (0,50 – 1000) mg/l Titrimetric method	PN-ISO 5664:2002
	Total nitrogen concentration Range: (0,5 – 200) mg/l Continuous flow analysis (CFA) with spectrophotometric detection	PN-EN ISO 11905-1:2001
	Total nitrogen concentration (calculated)	PB-102 ed. II of 14.08.2012
Total dissolved solids Range: (10 – 10000) mg/l Gravimetric method	PN-EN 15216:2010	

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Water, sewage	Content of petroleum ether extractable substances Range: (5 – 1000) mg/l Gravimetric method	PB-196 ed. II of 10.05.2018
	Chloride concentration Range: (5,0 – 10000) mg/l Titrimetric method	PN-ISO 9297:1994
	Ammonium concentration Range: (0,06 – 3,86) mg/l Spectrophotometric method	PB-124 ed. I of 15.06.2011 based on MERCK 1.14752.0001 test
	Orthophosphate concentration Range: (2,0 – 200) mg/l Continuous flow analysis (CFA) with spectrophotometric detection	PN-EN ISO 15681-2:2006
	Total phosphorus concentration Range: (0,5 – 50) mg/l Continuous flow analysis (CFA) with spectrophotometric detection	PN-EN ISO 15681-2:2006
	Phosphate concentration Range: (0,03 – 15,3) mg/l Total phosphorus concentration Range: (0,05 – 5,0) mg/l Spectrophotometric method	PB-127 ed. I of 15.06.2011 based on MERCK 1.14848.0001 test
	Sulphate concentration Range: (5,0 – 250) mg/l Spectrophotometric method	PB-128 ed. I of 15.06.2011 based on the MERCK 1.14548.0001 cuvette test
	Free and bound cyanide concentration Range: (0,005 – 0,500) mg/l Spectrophotometric method	PB-129 ed. I of 15.06.2011 based on MERCK 1.09701.0001cuvette test
	Total organic carbon (TOC) Range: (1,50 – 1000) mg/l Infrared spectrometry method	PN-EN 1484:1999
	Anionic surfactants concentration – MBAS Range: (0,05 – 50,0) mg/l Spectrophotometric method	PN-EN 903:2002
	Aliphatic and aromatic hydrocarbons concentration C <sub>6</sub> -C <sub>12</sub> (petroleum hydrocarbons) Range: (0,050 – 250) mg/l Gas chromatography method with mass spectrometry (GC-MS)	PB-191/GC ed. III of 20.10.2014
	Hydrocarbon oil index Range: (0,1-100) mg/l Gas chromatography method with mass spectrometry (GC-MS)	PN-EN ISO 9377-2:2003
	Chemical oxygen demand Range: (5 – 10000) mg/l O <sub>2</sub> Spectrophotometric method	PN-ISO 15705:2005

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Water, sewage</b>	Organochlorine pesticides concentration Range: µg/l HCB (0,010 - 0,2) µg/l α-HCH (0,010 - 0,2) µg/l β-HCH (0,010 - 0,2) µg/l γ-HCH (0,010 - 0,2) µg/l δ-HCH (0,010 - 0,2) µg/l heptachlor (0,010 - 0,2) µg/l heptachlor epoxide (0,010 - 0,2) µg/l aldrin (0,010 - 0,2) µg/l dieldrin (0,010 - 0,2) µg/l endrin (0,010 - 0,2) µg/l isodrin (0,010 - 0,2) µg/l cis-chlordane (0,010 - 0,2) µg/l trans-chlordane (0,010 - 0,2) µg/l op'-DDE (0,010 - 0,2) µg/l pp'-DDE (0,010 - 0,2) µg/l op'-DDD (0,010 - 0,2) µg/l pp'-DDD (0,010 - 0,2) µg/l op'-DDT (0,010 - 0,2) µg/l pp'-DDT (0,010 - 0,2) µg/l Gas chromatography method with mass spectrometry (GC-MS) Sum of organochlorine pesticides (calculated)	PN-EN ISO 6468:2002
	Anionic surfactants concentration – MBAS Range: (0,10 – 20) mg/l Spectrophotometric method	PB-379 ed. I of 10.05.2018 based on MERCK 1.02552.0001 cuvette test
<b>Water</b>	Colour Range: (5 - 70) mg/l Pt Visual method	PN-EN ISO 7887:2012 method D
	Colour Range: (5 – 70) mg/l Pt Spectrophotometric method	PN-EN ISO 7887:2012 method C +Ap1:2015-06
	Turbidity Range: (0,20 - 800) NTU Nephelometric method	PN-EN ISO 7027-1:2016-09
	Free chlorine concentration Range: (0,10 - 6,0) mg/l Spectrophotometric method	PB-197 ed. I of 21.01.2013 based on MERCK 1.00598.0002 test
	Sum of calcium and magnesium content Total hardness as CaCO <sub>3</sub> Range: (5,0 - 500) mg/l Titrimetric method	PN-ISO 6059:1999
	Total alkalinity Range: (0,40 – 20) mmol/l Bicarbonates Range: (24,4 – 1220) mg/l HCO <sub>3</sub> <sup>-</sup> Titrimetric method	PN-EN ISO 99631:2001 +Ap1:2004
	Cations concentration: Range: Ammonium ion (0,05 - 10) mg/l Sodium (0,05 - 25) mg/l Potassium (0,10 - 50) mg/l Calcium (0,10 - 200) mg/l Magnesium (0,05 - 50) mg/l Ion chromatography (IC) Sum of calcium and magnesium content (Calculated)	PN-EN ISO 14911:2002

Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Water</b>	Anions concentration: Range: Nitrites (0,05 - 2,50) mg/l Nitrates (1,0 - 100) mg/l Phosphates (0,10 - 10) mg/l Sulphates (2,0 - 250) mg/l Chlorides (2,0 - 250) mg/l Bromides (0,10 - 10) mg/l Fluorides (0,10 - 10) mg/l Ion chromatography (IC) method	PN-EN ISO 10304-1:2009
	Bromate concentration Range: (3 - 20) µg/l Ion chromatography (IC) method	PN-EN ISO 15061:2003 PN-EN ISO 11206:2013-07
	Organophosphorus pesticides concentration: Azinphos-ethyl, Chlorfenvinphos, Bromophos-ethyl, Bifenthrin, Azinphos-methyl, Chlorpyrifos-ethyl, Chlorpyrifos-methyl, Cyfluthrin, Cypermethrin, Deltamethrin, Demeton-S-methyl, Diazinon, Diflufenican, Dimethoate, Ethion, Ethoprophos, Fenitrothion I, Fenpropathrin, Fensulfothion, Fenthion, Fenvalerate, Fluopicolide, Phorate, Phosalone, Phosmet, Captan, Carbophenothion, lambda-Cyhalothrin, Malaoxon, Malathion, Mefenpyr-diethyl, Mecarbam, Methidathion, Metribuzin, Mevinphos, Oxyfluorfen, Parathion-ethyl, Parathion-methyl, Permethrin, Pirimiphos-ethyl, Pirimiphos-methyl, Procymidone, Propetamphos, Prothiofos, Pyrazophos, Triadimefon, Triadimenol, Triazophos, Trifloxystrobin Range: (0,05– 0,5) µg/l Gas chromatography method with mass spectrometry (GC-MS) Sum of organophosphorus pesticides (calculated)	PN-EN 12918:2004
	Acrylamide concentration Range: (0,05 – 5,0) µg/l High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS)	PB-403 ed. I of 25.06.2020
<b>Sewage</b>	Suspended matters suspension Range: (1,0 -100) ml/l Volumetric method	PN-72/C-04559/03
<b>Waste <sup>o)</sup> group code:</b> 02 02 04, 02 03 05, 03 01 82, 04 02 09, 04 02 21, 10 01 01, 10 12 08, 10 12 13, 17 01 01, 17 01 06*, 17 01 07, 17 01 80, 17 02 03, 17 03 80, 17 05 03*, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08, 17 08 02, 17 09 04, 19 01 11*, 19 01 12, 19 08 01, 19 08 02, 19 09 02, 19 12 09	Concentration and content of total organic carbon (TOC) / dissolved organic carbon (DOC) Range: (1,50 – 1000) mg/l (15,0 – 10000) mg/kg Infrared spectrometry method	PN-EN 12457-4:2006 PN-EN 1484:1999

<sup>o)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Waste <sup>o)</sup> group code:</b> 02 02 04, 02 03 05, 03 01 82, 04 02 09, 04 02 21, 10 01 01, 10 12 08, 10 12 13, 17 01 01, 17 01 06*, 17 01 07, 17 01 80, 17 02 03, 17 03 80, 17 05 03*, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08, 17 08 02, 17 09 04, 19 01 11*, 19 01 12, 19 08 01, 19 08 02, 19 09 02, 19 12 09	pH Range: 3,0 – 10,0 Potentiometric method	PN-EN 12457-4:2006 PN-EN ISO 10523:2012
	Chemical oxygen demand- Cr Range: (30 – 10000) mg/IO <sub>2</sub> Titrimetric method	PN-EN 12457-4:2006 PN-ISO 6060:2006
	Ammonium nitrogen concentration Range: (0,50 – 1000) mg/l Titrimetric method	PN-EN 12457-4:2006 PN-ISO 5664:2002
	Nitrite nitrogen concentration Range: (0,003 - 0,24) mg/l Spectrophotometric method	PN-EN 12457-4:2006 PN-EN 26777:1999
	Nitrate nitrogen concentration Range: (0,05 – 11,0) mg/l Spectrophotometric method	PN-EN 12457-4:2006 PN-82/C-04576/08
<b>Waste <sup>o)</sup> group code:</b> 02 02 04, 02 03 05, 03 01 82, 04 02 09, 04 02 21, 10 01 01, 10 12 08, 10 12 13, 17 01 01, 17 01 06*, 17 01 07, 17 01 80, 17 02 03, 17 03 80, 17 05 03*, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08, 17 08 02, 17 09 04, 19 01 11*, 19 01 12, 19 08 01, 19 08 02, 19 09 02, 19 12 09	Kjeldahl nitrogen concentration Range: (0,50 – 1000) mg/l Titrimetric method	PN-EN 12457-4:2006 PN-EN 25663:2001
	Total nitrogen (calculated)	PB-102 ed. II of 14.08.2012
	General dissolved substances concentration Range: (10,0 – 10000) mg/l Total dissolved solid– TDS content Range: (100 – 100000) mg/kg Gravimetric method	PN-EN 12457-4:2006 PN-EN 15216:2010
	Electrical conductivity Range: (10 – 10000) µS/cm Conductometric method	PN-EN 12457-4:2006 PN-EN 27888:1999
	Sulphate concentration and content Range: (5,0 – 250) mg/l (50 – 2500) mg/kg Spectrophotometric method	PN-EN 12457-4:2006 PB-128 ed. I of 15.06.2011
	Chloride concentration and content Range: (5,0 – 10000) mg/l (50,0 – 100000) mg/kg Titrimetric method	PN-EN 12457-4:2006 PN-ISO 9297:1994
<b>Waste <sup>o)</sup> group code:</b> 02 02 04, 02 03 05, 03 01 82, 04 02 09, 04 02 21, 10 01 01, 10 12 08, 10 12 13, 17 01 01, 17 01 06*, 17 01 07, 17 01 80, 17 02 03, 17 03 80, 17 05 03*, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08, 17 08 02, 17 09 04, 19 01 11*, 19 01 12, 19 05 01, 19 05 02, 19 08 01, 19 08 02, 19 09 02, 19 12 09	Fluoride concentration and content Range: (0,1 – 10) mg/l (1,0 – 100) mg/kg Potentiometric method	PN-EN 12457-4:2006 PN-78/C-04588/03
<b>Water extracts from waste</b>	Concentration and content of total organic carbon (TOC) / dissolved organic carbon (DOC) Range: (1,50 – 1000) mg/l (15,0 – 10000) mg/kg Infrared spectrometry method	PN-EN 1484:1999
	pH Range: 3,0 – 10,0 Potentiometric method	PN-EN ISO 10523:2012

<sup>o)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Water extracts from waste	Chemical oxygen demand- Cr Range: (30 – 10000) mg/l O <sub>2</sub> Titrimetric method	PN-ISO 6060:2006
	Ammonium nitrogen concentration Range: (0,50 – 1000) mg/l Titrimetric method	PN-ISO 5664:2002
	Nitrite nitrogen concentration Range: (0,003 - 0,24) mg/l Spectrophotometric method	PN-EN 26777:1999
	Nitrate nitrogen concentration Range: (0,05 – 11,0) mg/l Spectrophotometric method	PN-82/C-04576/08
	Kjeldahl nitrogen concentration Range: (0,50 – 1000) mg/l Titrimetric method	PN-EN 25663:2001
	Total nitrogen (calculated)	PB-102 ed. II of 14.08.2012
	General dissolved substances concentration Range: (10,0 – 10000) mg/l Total dissolved solid– TDS content Range: (100 – 100000) mg/kg Gravimetric method	PN-EN 15216:2010
	Electrical conductivity Range: (10 – 10000) µS/cm Conductometric method	PN-EN 27888:1999
	Sulphate (VI) concentration and content Range: (5,0 – 250) mg/l (50 – 2500) mg/kg Spectrophotometric method	PB-128 ed. I of 15.06.2011
	Chloride concentration and content Range: (5,0 – 10000) mg/l (50,0 – 100000) mg/kg Titrimetric method	PN-ISO 9297:1994
	Fluoride concentration and content Range: (0,1 – 10) mg/l (1,0 – 100) mg/kg Potentiometric method	PN-78/C-04588/03
<b>Sewage sludge <sup>o)</sup> group code: 19 08 05</b>	pH Range: 3,0 – 10,0 Potentiometric method	PN-EN 12176:2004
<b>Soil</b>	pH Range: 3,0 – 10,0 Potentiometric method	PN-ISO 10390:1997
	Volatile aromatic hydrocarbons content /BTEX/ Range: benzene (0,020 – 250) mg/kg of dry matter ethylbenzene (0,020-250) mg/kg of dry matter toluene (0,020 – 250) mg/kg of dry matter total xylenes (0,040 – 750) mg/kg of dry matter styrene (0,020 – 250) mg/kg of dry matter Gas chromatography method with mass spectrometry (GC-MS)	PN-EN ISO 22155:2016-7

<sup>o)</sup>Waste codes given according to Minister of Climate Regulation on the waste catalogue.

Subject of testing/product	Type of activity/tested qualities/method	Reference document
Soil	Polycyclic aromatic hydrocarbons content (PAH) Naphthalene Anthracene Chrysene Benzo[a]anthracene Dibenzo(a,h)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(ghi)perylene Indeno(1,2,3-cd)pyrene Range: (0,05 – 20) mg/kg Gas chromatography method with mass spectrometry (GC-MS) Sum of PAH (calculated)	PN-ISO 18287:2008
	Aliphatic and aromatic hydrocarbons content C <sub>6</sub> -C <sub>12</sub> (petroleum hydrocarbons) Range: (1,0 – 1000) mg/kg of dry matter Gas chromatography method with mass spectrometry (GC-MS)	PN-EN ISO 22155:2016-07
Mineral soil	Assimilated phosphorus as P <sub>2</sub> O <sub>5</sub> content Range: (1,0 – 50) mg/100 g Spectrophotometric method	PN-R-04023:1996
Soil, Sewage sludge <sup>o)</sup> group code: 19 08 05 Waste <sup>o)</sup> group code: 02 02 04, 02 03 05, 03 01 82, 04 02 09, 04 02 21, 10 01 01, 10 12 08, 10 12 13, 17 01 01, 17 01 06*, 17 01 07, 17 01 80, 17 02 03, 17 03 80, 17 05 03*, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08, 17 08 02, 17 09 04, 19 01 11*, 19 01 12, 19 08 01, 19 08 02, 19 09 02, 19 12 09,	Dry mass content / water content Range: (0,5 – 99,5) % Gravimetric method	PN-EN 12880:2004
Soil, Sewage sludge <sup>o)</sup> group code: 19 08 05 Waste <sup>o)</sup> group code: 17 05 03*, 17 05 04, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08	Ammonium nitrogen content Range: (0,05 – 2,00) % Titrimetric method	PB -178 ed. I of 14.08.2012
	Kjeldahl nitrogen content Range: (0,05 – 8,00) % Titrimetric method	PN-EN 13342:2002
	Polychlorinated biphenyls content (PCB) Range: PCB 28 (1 – 1000) µg/kg PCB 52 (1 – 1000) µg/kg PCB 101 (1 – 1000) µg/kg PCB 118 (1 – 1000) µg/kg PCB 138 (1 – 1000) µg/kg PCB 153 (1 – 1000) µg/kg PCB 180 (1 – 1000) µg/kg Gas chromatography method with mass spectrometry (GC-MS)	PB-194/GC ed. II of 09.05.2013

<sup>o)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.



Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Soil,</b> <b>Sewage sludge <sup>o)</sup> group code:</b> <b>19 08 05</b> <b>Waste <sup>o)</sup> group code:</b> <b>17 05 03*, 17 05 04, 17 05 05*,</b> <b>17 05 06, 17 05 07*, 17 05 08</b>	Polycyclic aromatic hydrocarbons content (PAH) Range: Naphthalene (0,01 – 100) mg/kg Acenaphthylene (0,01 – 100) mg/kg Acenaphthene (0,01 – 100) mg/kg Fluorene (0,01 – 100) mg/kg Phenanthrene (0,01 – 100) mg/kg Anthracene (0,01 – 100) mg/kg Fluoranthene (0,01 – 100) mg/kg Pyrene (0,01 – 100) mg/kg Benzo(a)anthracene (0,01 – 100) mg/kg Chrysene (0,01 – 100) mg/kg Benzo(b)fluoranthene (0,01 – 100) mg/kg Benzo(a)fluoranthene (0,01 – 100) mg/kg Benzo(k)fluoranthene (0,01 – 100) mg/kg Benzo(a)pyrene (0,002 – 100) mg/kg Indeno(1,2,3,-cd)pyrene (0,01 – 100)mg/kg Dibenzo(a,h)anthracene (0,01– 100) mg/kg Benzo(ghi)perylene (0,01 – 100) mg/kg Gas chromatography method with mass spectrometry (GC-MS)	PB-194/GC ed. II of 09.05.2013
<b>Sewage sludge <sup>o)</sup> group code:</b> <b>19 08 05</b> <b>Waste <sup>o)</sup> group code:</b> <b>17 05 03*, 17 05 04, 17 05 05*,</b> <b>17 05 06, 17 05 07*, 17 05 08</b>	Aliphatic and aromatic hydrocarbons content C <sub>6</sub> -C <sub>12</sub> (petroleum hydrocarbons) Range: (1,0 – 1000) mg/kg of dry matter Gas chromatography method with mass spectrometry (GC-MS)	PB-190/GC ed. III of 20.10.2014
<b>Soil,</b> <b>Sewage sludge <sup>o)</sup> group code:</b> <b>19 08 05</b> <b>Waste <sup>o)</sup> group code:</b> <b>19 05 02, 19 05 03, 19 06 03,</b> <b>19 06 04, 19 06 05, 19 06 06, 19</b> <b>06 99</b>	Loss on ignition of dry mass (LOI) / Organic compounds Range: (0,5 – 99,5) % Gravimetric method	PN-EN 12879:2004
<b>Soil,</b> <b>Sewage sludge <sup>o)</sup> group code:</b> <b>19 08 05</b> <b>Waste <sup>o)</sup> group code:</b> <b>17 05 03*, 17 05 04, 17 05 05*,</b> <b>17 05 06, 17 05 07*, 17 05 08</b>	Hydrocarbon oil index, including sum of C12-C35 hydrocarbons Range: (30-3000) mg/kg of dry matter Gas chromatography method with mass spectrometry (GC-MS)	PN-EN ISO 16703:2011
<b>Sewage sludge <sup>o)</sup> group code:</b> <b>19 08 05</b> <b>Waste <sup>o)</sup> group code:</b> <b>17 05 03*, 17 05 04, 17 05 05*,</b> <b>17 05 06, 17 05 07*, 17 05 08</b>	Volatile aromatic hydrocarbons content/BTEX/ Range: benzene (0,020 – 250) mg/kg of dry matter ethylbenzene (0,020-250) mg/kg of dry matter toluene (0,020 – 250) mg/kg of dry matter total xylenes (0,040 – 750) mg/kg of dry matter styrene (0,020 – 250) mg/kg of dry matter Gas chromatography method with mass spectrometry (GC-MS)	PB-190/GC ed. III of 20.10.2014

<sup>o)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

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<b>Flexible scope of accreditation</b> <sup>1), 2), 3), 4), 5)</sup>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Water, sewage</b> <sup>1)</sup>	Concentration of halogenated organic compounds <sup>2), 3)</sup> Purge&Trap gas chromatography method with mass spectrometry detection (P&T-GC-MS)	Standardized methods <sup>5)</sup> In-house test procedures <sup>4)</sup>
<b>Water, sewage</b> <sup>1)</sup>	Anions concentration <sup>2), 3)</sup> Ion chromatography (IC) method Sum (calculated)	Standardized methods <sup>5)</sup>
<b>Water</b>	Cations concentration <sup>2), 3)</sup> Ion chromatography (IC) method Sum (calculated)	Standardized methods <sup>5)</sup>

<sup>0)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

Within the flexible scope of accreditation, it is allowed:

- 1) Adding the subject of testing within a group of subjects,
- 2) Adding the tested feature within the subject / groups of subjects and methods (testing technique),
- 3) Changing the measuring range of the test method,
- 4) Applying the updated and implemented new methods described in-house test procedures,
- 5) Applying the updated and implemented new methods described in the standardized methods.

The current "List of testing carried out in the framework of flexible scope" is made available to the public by the accredited body.

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<i>Testing carried out for the purposes of the regulated area:</i> - Regulation of the Minister of Economy of 16 July 2015 on the acceptance of waste at landfills (Journal of Laws of 2015, item 1277) - Regulation of the Minister of Environment of 11 May 2015 on waste recovery outside installations and devices (Journal of Laws of 2015, item 796)		
<b>Waste <sup>o)</sup> group code:</b> <b>19 08 01, 19 08 02, 19 08 05, 17 01 82, 17 03 80</b> <b>Aqueous extract from waste prepared in Environmental Analysis Laboratory Małaszewicze <sup>DAB-11</sup></b>	Concentration of total organic carbon (TOC)/ dissolved organic carbon (DOC) Range: (1,50 – 1000) mg/l (15,0 – 10000) mg/kg Infrared spectrometry method IR Content of total carbon (calculated)	PN-EN 1484:1999
<b>Waste <sup>o)</sup> group code:</b> <b>19 08 01, 19 08 02, 19 08 05, 17 01 82, 17 03 80</b>	Content of total organic carbon (TOC)/ dissolved organic carbon (DOC) Range: (15,0 – 10000) mg/kg Infrared spectrometry method IR	PN-EN 12457-4:2006 PN-EN 1484:1999

<sup>o)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

<sup>DAB-11)</sup> Waste codes according to Minister of Climate Regulation on the waste catalogue for the validation group are given in Annex No. 1 to DAB-11.

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<b>Environmental Analysis Laboratory Małaszewicze Kolejarzy 6, 21-540 Małaszewicze</b>		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Sewage sludge</b>	Dry mass content / water content Range: (1,0 – 99,0) % Gravimetric method	PN-EN 12880:2004
	Loss on ignition of dry mass (LOI) / Organic compounds content Range: (1,0 – 99,0) % Gravimetric method	PN-EN 12879:2004
<b>Soil</b>	Dry mass content / water content Range: (1,0 – 99,0) % Gravimetric method	PN-ISO 11465:1999
	Loss on ignition of dry mass (LOI) / Organic compounds content Range: (1,0 – 99,0) % Gravimetric method	PN-EN 15169:2011
	Total organic carbon (TOC) content Range: (0,50 – 60) % High-temperature combustion method with IR detection	PN-EN 10694:2002
<b>Solid fuels: recovered fuel – alternative fuel Solid recovered fuel (SRF)</b>	Moisture content in the analytical sample Range: (0,5 – 15,0) % Gravimetric method	PN-EN 15414-3:2011
	Total moisture content Range: (1,0 – 80,0) % Gravimetric method	CEN/TS 15414-1:2014
	Ash content Range: (1,0 – 40,0) % Gravimetric method	PN-EN 15403:2011
	Sulphur content Range: (0,10 – 2,00) % High temperature combustion method with IR detection	PN-EN 15408:2011 p. 6.6
	Carbon content Range: (20,0 – 80,0) % High temperature combustion method with IR detection	PN-EN 15407:2011
	Gross calorific value Range: (7000 – 40000) kJ/kg Calorimetric method	PN-EN 15400:2011
	Net calorific value (calculated)	
	Chlorine content Range: (0,10 – 2,00) % Titration method	PN-EN 15408:2011 PN-ISO 9297:1994
<b>Solid fuels: solid biomass – solid biofuels</b>	Moisture content in analytical sample Range: (0,50 – 20,0) % Gravimetric method	PN-EN ISO 18134-3:2015-11
	Total moisture content Range: (1,0 – 80,0) % Gravimetric method	PN-EN ISO 18134-2:2017-03

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Solid fuels: solid biomass – solid biofuels</b>	Ash content Range: (0,5 – 45,0) % Gravimetric method	PN-EN ISO 18122:2016-01
	Sulphur content Range: (0,02 – 0,50) % High-temperature combustion method with IR detection	PN-EN ISO 16994:2016-10 p. 4.4
	Carbon content Range: (20,0 – 60,0) % High-temperature combustion method with IR detection	PN-EN ISO 16948:2015-07
	Gross calorific value Range: (5000 – 25000) kJ/kg Calorimetric method	PN-EN ISO 18125:2017-07
	Net calorific value (calculated)	
<b>Flexible scope of accreditation <sup>1)</sup></b>		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Waste <sup>1)</sup> group code: 03 03, 10 01, 10 12, 17 05, 17 06, 17 09, 19 01, 19 05, 19 06, 19 08, 19 09, 19 12, 20 01, 20 02, 20 03</b>	Loss on ignition of dry mass (LOI) / Organic compounds content Range: (1,0 – 99,0) % Gravimetric method	PN-EN 15169:2011
	Total organic carbon (TOC) content Range: (0,50 – 60) % High-temperature combustion method with IR detection	PN-EN 13137:2004 method A
	Gross calorific value Range: (4000 - 30000) kJ/kg Calorimetric method	PN-EN 15400:2011

<sup>0)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

Within the flexible scope of accreditation, it is allowed:

1) Adding the subject of testing within the group of subjects.

The current "List of testing carried out in the framework of flexible scope" is made available to the public by the accredited body.

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<i>Testing carried out for the purposes of the regulated area:</i> - Regulation of the Minister of Economy of 16 July 2015 on the acceptance of waste at landfills (Journal of Laws 2015, item 1277)		
<b>Waste <sup>o)</sup> group code:</b> <b>19 08 01, 17 01 82, 17 03 80</b>  <b>Waste <sup>DAB-11:</sup></b> - <b>Sediments and mineral wastes (I);</b> - <b>Construction waste (III);</b> - <b>Waste from waste treatment (VI);</b> - <b>Sediments from industrial processes (VII);</b> - <b>Sewage sludge (IX);</b> - <b>Slags, ashes and furnace dust (XI);</b> - <b>Plastics (XXV);</b> - <b>Wood (XXVI);</b> - <b>Leather and textiles (XXVII);</b> - <b>Other municipal waste, including mixed waste (XXVIII)</b>	Sulphate concentration and content Range: (10 – 5000) mg/l (100 – 50000) mg/kg Gravimetric method	PN-EN 12457-4:2006 PN-ISO 9280:2002
	Fluoride concentration and content Range: (0,10 – 10) mg/l (1,0 – 100) mg/kg Potentiometric method	PN-EN 12457-4:2006 PN-78/C-04588/03
	Chloride concentration and content Range: (5 – 10000) mg/l (50 – 100000) mg/kg Titrimetric method	PN-EN 12457-4:2006 PN-ISO 9297:1994
	General dissolved substances concentration Range: (100 – 10000) mg/l Total dissolved solid – TDS Range: (1000 – 100000) mg/kg Gravimetric method	PN-EN 12457-4:2006 PN-EN 15216:2010
	Electrical conductivity Range: (10 – 10000) µS/cm Conductometric method	PN-EN 12457-4:2006 PN-EN 27888:1999
	pH Range: 3,0 – 12,0 Potentiometric method	PN-EN 12457-4:2006 PN-EN ISO 10523:2012
	Dry residue/water content Range: (1,0 – 99,0) % Gravimetric method	PN-EN 14346:2011 method A

<sup>o)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

<sup>DAB-11)</sup> Waste codes according to Minister of Climate Regulation on the waste catalogue for the validation group are given in Annex No. 1 to DAB-11.

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<b>Sampling Section</b> Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Water</b> <b>Surface waters</b>	Sampling for microbiological analysis	PN-EN ISO 19458:2007
<b>Air</b>	Air sampling for microbiological analysis Sedimentation and collision (impact) method	PB-250 ed. III of 30.03.2020
<b>Drinking water</b>	Water sampling for chemical and physical analysis Temperature Range: (4,0-50,0)°C	PN-ISO 5667-5:2017-10 PB-360 ed. II of 24.07.2017
<b>Underground water</b>	Sampling for chemical and physical analysis Temperature Range: (4,0-50,0)°C	PN-ISO 5667-11:2017-10 PB-360 ed. II of 24.07.2017
<b>Surface water</b>	Sampling for chemical and physical analysis	PN-ISO 5667-6:2016-12 except p.7.5:7.6
	Temperature Range: (4,0-50,0)°C	PB-360 ed. II of 24.07.2017
<b>Sewage</b>	Sampling for chemical and physical analysis Manual method Automatic method Temperature of taken sewage sample Range: (4,0-50,0)°C	PN-ISO 5667-10:1997 PB-360 ed. II of 24.07.2017
<b>Waste <sup>o)</sup> group code:</b> <b>19 08 01, 19 08 02, 19 08 05,</b>	Sampling for chemical and physical analysis	PB-206 ed. II of 11.04.2019
<b>Sewage sludge</b> <b>Waste <sup>o)</sup> group code: 19 08 05</b>	Sampling for chemical and physical analysis	PN-ISO 5667-13:2011
<b>Sewage sludge</b>	Sampling for microbiological and biological analysis	PB-410 ed. I of 20.07.2020
<b>Soil</b>	Sampling for chemical and physical analysis	PN-R-04031:1997 PN-ISO 10381-4:2007 PN-ISO 10381-5:2009
<b>Environmental samples from food and cosmetics production areas as well as food and cosmetics trade</b>	Sampling from the surface using contact plates and swabs for microbiological analysis	PN-EN ISO 18593:2018-08
<b>Water on the swimming pools</b>	Sampling for microbiological, chemical and physical analysis	PB-378 ed. I of 24.05.2018
	Temperature Range: (4,0-50,0)°C	PB-360 ed. II of 24.07.2017
<b>Water (including water on the swimming pools)</b>	Free chlorine concentration Range (0,05-5,0) mg/l Colorimetric method	PB-358 ed. III of 30.03.2020 based on Palintest method
	Total chlorine concentration Range (0,05-5,0) mg/l Colorimetric method	
	Combined chlorine concentration (calculated)	
	Ozone concentration Range: (0,03 – 2,00) mg/l Electrochemical method	PB-376 ed. I of 22.05.2018
	Ozone concentration Range: (0,03 – 0,75) mg/l Colorimetric method	PB-403 ed. I of 18.12.2019 based on HACH no. 8311 method

<sup>o)</sup> Waste codes given according to Minister of Climate Regulation on the waste catalogue.

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<b>Water (including water in swimming pools)</b>	Oxidant-reducing potential (Redox) vs. Ag/AgCl 3,5 mol KCl Range: (200 - 1000) mV Potentiometric method	PB-377 ed. II of 30.03.2020
<b>Water, sewage</b>	pH Range: 4,0-10,0 Potentiometric method	PB-359 ed. II of 24.07.2017 PN-EN ISO 10523:2012

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
<p><i>Sampling carried out for the purposes of the regulated area:</i></p> <ul style="list-style-type: none"> <li>- Regulation of the Minister of Economy of 16 July 2015 on the acceptance of waste at landfills (<i>Journal of Laws of 2015, item 1277</i>)</li> <li>- Regulation of the Minister of the Environment of 6 February 2015 on municipal sewage sludge (<i>Journal of Laws of 2015, item 257</i>)</li> </ul>		
<p><b>Waste</b> <sup>DAB-11:</sup></p> <ul style="list-style-type: none"> <li>- Sediments and mineral wastes (I);</li> <li>- Construction waste (III);</li> <li>- Waste from waste treatment (VI);</li> <li>- Sewage sludge (IX);</li> <li>- Slags, ashes and furnace dust (XI);</li> <li>- Other municipal waste, including mixed waste (XXVIII)</li> </ul>	<p>Sampling for chemical and physical analysis</p>	<p>PB-206, ed. II of 11.04.2019</p>

<sup>DAB-11</sup> Waste codes according to Minister of Climate Regulation on the waste catalogue for the validation group are given in Annex No. 1 to DAB-11.

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<b>Sample Homogenization and Physical Analysis Section</b> Chwaszczyńska 180, 81-571 Gdynia		
<b>Subject of testing/product</b>	<b>Type of activity/tested qualities/method</b>	<b>Reference document</b>
<b>Oilseeds</b>	Impurities content Range: (0,1 – 20) % Gravimetric method	PN-EN ISO 658:2004 ISO 658:2002
<b>Fish and fishery products and seafood</b>	Glaze content Range: (5,0 – 45,0) % (m/m) Gravimetric method	CODEX STAN 165-1989 (Rev. 1-1995) PB-281 ed. III of 31.08.2016 p. 5.6
<b>Cereals and cereal products</b>	Gluten content Range: (15 – 37) % Gravimetric method	PN-77/A-74041 p. 2.5.2.
<b>Cereals</b>	Bulk density (mass per hectolitre) Range: (35 – 90) kg/hl Gravimetric method	PN-EN ISO 7971-3:2019
<b>Canned meat</b>	Tightness Vacuum method Visual method	PN-A-82055-4:1997+Az1:2002
<b>Canned meat</b>	Content of melt fat and jelly Range: (1,0 – 25,0) % Gravimetric method	PN-A-82056:1985 p. 2.3.8
<b>Canned vegetables, fruit, meat and vegetable</b>	Tightness Vacuum method	PN-A-75052-02:1990
<b>Tea and coffee, Food concentrates, Meat and meat products, Milk and dairy products, Fruits, vegetables, fruit and vegetable products and vegetable with meat products, Fish and fishery products and seafood, Sweets and sugar confectionery, Herbal raw materials and products, spices, Foodstuffs for particular nutritional uses, Animal and vegetable fats and oils, Cereals and cereal products, Frozen products, Ready-made culinary products, Food additives, Products used in animal nutrition</b>	Weight Range: (1,0 – 5000) g Gravimetric method	PB-281 ed. III of 31.08.2016 p. 5.6
<b>Canned meat</b>	Weight Range: (50,0 – 5000) g Gravimetric method	PN-A-82056:1985 p. 2.3.5
<b>Fruits, vegetables, fruit and vegetable products and vegetable with meat products</b>	Weight Range: (50,0 – 5000) g Gravimetric method	PN-A-75101-15:1990 p. 2
<b>Milk and milk products, Alcoholic beverages, Non-alcoholic beverages, Liquid food concentrates, Liquid dietary supplements Vegetable and fruits juices, nectars</b>	Volume measurement Range: (50 - 2000) ml Volumetric method	PB-369 ed. I of 04.01.2018
	Volume measurement Range: (50 - 5000) ml Gravimetric method	

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## Summary of changes Scope of Accreditation No. AB 079

Status change: original version - A

I approve the status of changes

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OF CHEMICAL TESTING**

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date: 18 December 2020

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