SCOPE OF ACCREDITATION FOR TESTING LABORATORY
No. AB 079
issued by
POLSKIE CENTRUM AKREDYTACJI
01-382 Warszawa, ul. Szczotkarska 42

Issue 63 of 11.12.2023

This scope of accreditation is J.S. Hamilton Poland's translation. In the event of discrepancies, only the original PCA document is binding. You can find it at https://www.pca.gov.pl/

AB 079	Name and address **J.S. HAMILTON POLAND Sp. z o.o.** **TESTING LABORATORY** **ul. Chwaszczyńska 180** **81-571 Gdynia**
Identification code *)	**Field of testing and item:**
- B/1, B/4, B/17, B/22, B/42, B/55, B/57	- Biological and biochemical tests of agricultural products – including animal feedstuffs, chemical products, other products, food,cosmetics, fertilizers, animal feedstuffs, objects from food production area
- C/28/P, C/29/P, C/30/P, C/31/P, C/32/P	- Chemical tests and sampling of water, drinking water, sewage, soil, sediments, waste
- C/1, C/4, C/6, C/10, C/17, C/18, C/21, C/22, C/23, C/25, C/42, C/43, C/45, C/47, C/48, C/49, C/53, C/54, C/55	- Chemical tests of agricultural products – including feedstuffs, chemical products, electrical, products and equipment, fuels (gas, liquid, solid), other products, paper, cardboard, plastic and rubber products, foods, textiles, toys, cosmetics, fertilizers, paints and lacquers, crude oil, other petroleum products, packaging materials, electrical, telecommunication and electronic products and equipment, electronic equipment, animal feedstuffs
- K/9/P, K/28/P, K/29/P, K/30/P, K/32/P	- Microbiological tests and sampling of air, water, drinking water, sewage, sediments

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*) The identification code according to the Annex to document DAB-07, available at PCA website www.pca.gov.pl

This document is an annex to accreditation certificate No. AB 079 of 03.08.2020
Accreditation cycle from 25.05.2022 to 31.05.2026

The status of accreditation and validity of the scope of accreditation can be confirmed at PCA website *www.pca.gov.pl*

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Identification code *)	**Field of testing and item:**
- K/1, K/3, K/4, K/9, K/10, K/12, K/17, K/18, K/21, K/22, K/27, K/42, K/49, K/55, K/57	- Microbiological tests of agricultural products, biological materials for testing, chemical products, liquid fuels, glass and ceramics, other products, paper, cardboard, plastic and rubber products, food, wood, cosmetics, packaging materials, animal feedstuffs, objects from food production area
- N/28/P, N/29P, N/30/P, N/31/P, N/32/P	- Tests of physical properties and sampling of water, drinking water, sewage, soil, sediments, waste
- N/1, N/4; N/10, N/18, N/21, N/22, N/23, N/25, N/42, N/47, N/48, N/49, N/55	- Tests of physical properties of agricultural products, chemical products, fuels, paper, cardboard, plastic and rubber products, food, textiles, toys, cosmetics, crude oil, other petroleum products, packaging materials, animal feedstuffs
- Q/28/P, Q/29/P	- Sensory tests and sampling of water, drinking water
- Q/1, Q/4, Q/6, Q/10, Q/12, Q/17, Q/18, Q/21, Q/22, Q/42, Q/49	- Sensory tests of agricultural products, chemical products, electrical products, fuels, glass and ceramics, other products, paper, cardboard, plastic and rubber products, food, cosmetics, packaging materials

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Fuel Laboratory Gdynia Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Liquid fuels: diesel oil, light heating fuel	Cetane index (calculated)	PN-EN ISO 4264:2018-08
Liquid fuels: diesel oil, unleaded petrol, light heating fuel, marine fuel	Copper strip test Range: class (1 – 4) Visual method	PN-EN ISO 2160:2004
Liquid fuels: diesel oil, light heating fuel, heavy heating fuel, marine fuel	Kinematic viscosity at temperature 40°C, 50 °C and 100 °C Capillary method Range: (2,000 – 50,00) mm^2/s Dynamic viscosity (calculated)	PN-EN ISO 3104:2021-03, Procedure A
Liquid fuels: diesel oil, light heating fuel, marine fuel	Water content Range: (0,003 – 0,100) % (m/m) Coulometric titration method	PN-EN ISO 12937:2005
Liquid fuels: diesel oil, light heating fuel, marine fuel	Contamination content Range: (6 – 30) mg/kg Gravimetric method	PN-EN 12662:2014-05
Liquid fuels: diesel oil, light heating fuel, heavy heating fuel, marine fuel	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
Liquid fuels: light heating fuel, heavy heating fuel, marine fuel	Sulphur content Range: (0,03 – 3,0) % (m/m) Energy-dispersive X ray fluorescence spectrometry method	PN-EN ISO 8754:2007+Ap1:2014-02
Liquid fuels: diesel oil, light heating fuel, marine fuel	Cloud point Range: (-40 – 0) ˚C Visual method	PN-EN ISO 3015:2019-06
Liquid fuels: unleaded petrol	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+A1:2020-03 except p. 8 and 9
	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 hydrocarbons (1,0 – 20,0) % (v/v) Saturated hydrocarbons (45,0 – 68,0) % (v/v) Fluorescent indicator adsorption method (FIA method)	PN-EN 15553:2022-05
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 – 60,0) mg/kg Ultraviolet fluorescence method	PN-EN ISO 20846:2020-03
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 +A1:2021-06
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^3 Gravimetric method	PN-EN ISO 12205:2011
Liquid fuels: diesel oil, light heating fuel, heavy heating fuel	Gross calorific value Range: (30000 – 45000) 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** **Chemical products:** **solvents**	Distillation characteristics Range: (10,0 – 400,0) ˚C Distillation method	PN-EN ISO 3405:2019-05
	Density Range: (600,0 – 1,100) kg/m^3 Oscillating method	PN-EN ISO 12185:2002
Liquid fuels: **heavy heating fuel**	Density Range: (890,0 – 990) kg/m^3 Oscillating method	PN-EN ISO 12185:2002
Spirits and alcoholic beverages	Alcohol strength (ethyl alcohol) Range: (30,0 – 99,9) % Oscillating method	PN-A-79528-3:2007

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Gaseous fuels: **Liquefied hydrocarbon gases, LPG**	Detection of hydrogen sulphide Visual method	PN-EN ISO 8819:2000
	Sulphur content Range: (1,0 – 196*)* mg/kg Ultraviolet fluorescence method	ASTM D 6667-21
	Copper strip test Range: class (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 Range: (0,1 – 1,0) % (mol/mol) (0,1 – 1,0) % (m/m) 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+A1:2022-07 app. B
	Density at temperature 15 ˚C (calculated)	PN-EN ISO 8973:2000+A1:2020-10
	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+A1:2020-10 PN-EN 589+A1:2022-07 app. C
	Temperature, at which the relative vapour pressure is not less than 150 kPa (calculated)	PN-EN ISO 8973:2000+A1:2020-10 PN-EN 589+A1:2022-07
	Odour Organoleptic method	PN-EN 589+A1:2022-07 app. A
	Mineral oil residue Range: (0,0002 – 0,0100) % (m/m) Gravimetric method	PN-C-96008:1998
	Dissolved residues Range: (30 – 100) mg/kg Gravimetric method	PN-EN 15471:2017-08
	Hydrocarbons composition Range: (0,10 – 100,0) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	DIN 51619:2004-02
	1,3 butadiene content Range: (0,01 – 1,00) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	DIN 51619:2004-02

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Gaseous fuels: **Liquefied hydrocarbon gases, LPG**	Total dienes content Range: (0,10 – 1,00) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	DIN 51619:2004-02
Gaseous fuels: **natural gas**	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
Gaseous fuels: **natural gas**	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_{6+} (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)	
Liquid fuels: **fatty acids methyl esters (FAME)**	Density Range: (860,0 – 900,0) kg/m^3 Oscillating method	PN-EN ISO 12185:2002
	Kinematic viscosity at temperature 40 °C Range: (3,500 – 5,000) mm^2/s Capillary method	PN-EN ISO 3104:2021-03 Procedure A
	Flash point Range: (90,0–180,0) °C Pensky-Martens closed cup method	PN-EN ISO 2719:2016-08 +A1:2021-06
	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
Liquid fuels: **fatty acids methyl esters (FAME)**	Contamination content Range: (6 – 30) mg/kg Gravimetric method	PN-EN 12662:2014-05
	Sulphur content Range: (3,0 – 15,0) mg/kg Ultraviolet fluorescence method	PN-EN ISO 20846:2020-03
Animal and vegetable fats and oils	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
Liquid fuels: **diesel oil**	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+A1:2023-01 except method B
Petroleum	Density at temperature 15 °C i 20 °C Range: (0,7500 – 0,9000) g/cm^3 (750,0 – 900,0) kg/m^3 Oscillating method	ASTM D 5002-22
	Sulphur content Range: (0,100– 2,50) % (m/m) Energy-dispersive X ray fluorescence spectrometry method	ASTM D 4294-21
	Sediments content Range: (0,01– 0,05) % (m/m) Gravimetric method	ASTM D 473-22
	Water content Range: (0,025 – 1,000) % (v/v) Distillation method	ASTM D 4006-22

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Fuel Laboratory Małaszewicze Kolejarzy 6, 21-540 Małaszewicze		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Liquid fuels: **diesel oil**	Sulphur content Range: (3,0 – 50,0) mg/kg Ultraviolet fluorescence method	PN-EN ISO 20846:2020-03
Liquid fuels: **diesel oil**	Density Range: (820,0 – 840,0) kg/m^3 Areometric method	PN-EN ISO 3675:2004
Other petroleum products: **petroleum paraffins, petroleum waxes, petrolatum**	Kinematic viscosity at 100 ºC Range: (3,000 – 15,00) mm^2/s Capillary method	PN-EN ISO 3104:2021-03, Procedure A
	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) ºC Visual method	ASTM D 938-12 (2017)
Liquid fuels: **diesel oil**	Distillation characteristics at atmospheric pressure Range: (150 – 400) ˚C Distillation method	PN-EN ISO 3405:2019-05
Gaseous fuels: **Liquefied hydrocarbon gases, LPG**	Detection of hydrogen sulphide Visual method	PN-EN ISO 8819:2000
	Sulphur content Range: (1,0 – 100*)* mg/kg Ultraviolet fluorescence method	ASTM D 6667-21
	Copper strip test Range: class (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 – 100,0) % (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) (0,1 – 1,0) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	PN-ISO 7941:1993+Ap1:2002 PN-EN 27941:2015-12
	Hydrocarbons composition Range: (0,1 – 100,0) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	DIN 51619:2004-02
	1,3 butadiene content Range: (0,01 – 1,00) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	DIN 51619:2004-02

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Gaseous fuels: **Liquefied hydrocarbon gases, LPG**	Total dienes content Range: (0,10 – 1,00) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	DIN 51619:2004-02
	Motor octane number MON (calculated)	PN-EN 589+A1:2022-07 app. B
	Density at temperature 15 ˚C (calculated)	PN-EN ISO 8973:2000+A1:2020-10
	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 relative vapour pressure is not less than 150 kPa (calculated)	PN-EN ISO 8973:2000+*A1:2020-10* PN-EN 589+A1:2022-07
	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+A1:2020-10 PN-EN 589+A1:2022-07 app. C
	Net calorific value (calculated)	PN-C-96008:1998
	Odour Organoleptic method	PN-EN 589+A1:2022-07 app. A
	Mineral oil residue Range: (0,0002 – 0,0100) % (m/m) Gravimetric method	PN-C-96008:1998
Liquid fuels: **diesel oil**	Fatty acid methyl esters content (FAME) Range: (0,05 – 10,0) % (v/v) IR spectrometry method	PN-EN 14078:2014-06
	Flash point Range: (40,0 – 80,0) ˚C Pensky-Martens closed cup method	PN-EN ISO 2719:2016-08 +A1:2021-06
	Cold filter plugging point (CFPP) Range: (-35 – 0) °C Optical method	PN-EN 116:2015-09

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Fuel Laboratory Tychy Goździków 1, 43-100 Tychy		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Gaseous fuels: **Liquefied hydrocarbon gases, LPG**	Detection of hydrogen sulphide Visual method	PN-EN ISO 8819:2000
	Sulphur content Range: (1,0 – 200) mg/kg Ultraviolet fluorescence method	ASTM D 6667-21
	Copper strip test Range: class (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) (0,1- 1,0) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	PN-ISO 7941:1993+Ap1:2002 PN-EN 27941:2015-12
	Hydrocarbons composition Range: (0,1 – 100) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	DIN 51619:2004-02
	1,3- butadiene content Range: (0,01 – 1,00) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	DIN 51619:2004-02
	Total dienes content Range: (0,10 – 1,00) % (m/m) Gas chromatography method with flame ionization detection (GC-FID)	DIN 51619:2004-02
	Motor octane number MON (calculated)	PN-EN 589+A1:2022-07 app. B
	Density at temperature 15 ˚C (calculated)	PN-EN ISO 8973:2000+A1:2020-10
	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+A1:2020-10 PN-EN 589+A1:2022-07 app. C
	Temperature, at which the relative vapour pressure is not less than150 kPa (calculated)	PN-EN ISO 8973:2000+A1:2020-10 PN-EN 589+A1:2022-07
	Net calorific value (calculated)	PN-C-96008:1998
	Odour Organoleptic method	PN-EN 589+A1:2022-07 app. A

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Gaseous fuels: **Liquefied hydrocarbon gases, LPG**	Dissolved residues Range: (30 – 100) mg/kg Gravimetric method	PN-EN 15471:2017-08
Solid fuels: **coal**	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_2 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
	Sintering ability Range : 0 – 80 Gravimetric method	PN-81/G-04518
	Fixed carbon factor (calculated)	PN-G-04516:1998
Solid fuels: **coke derived from coal**	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
Solid fuels: **coal and** **coke**	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 PN-ISO 1928:2020-05
	Volatile matters content Range: Hard coal (2,0 – 40,0)% Coke (1,0 – 20,0) % Gravimetric method	ISO 562:2010
	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 $^{\varepsilon 1}$ (method A)

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Solid fuels: coal and coke	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
	Chlorine content Range:(0,03 – 0,50) % Titrimetric method	PN-ISO 587:2000 p. 7.2.1
Waste [O)] group code: 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
Solid fuels: solid biomass - solid biofuels	Moisture content in test sample Range: (1,00 – 20,00) % Thermogravimetric method	PB-98 ed. III of 21.05.2013
Solid fuels: solid biomass - solid biofuels	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

[O)] Waste codes given according to Minister of Climate Regulation on the waste catalogue.

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Microbiology Laboratory Gdynia Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Meat **Fish** **Eggs**	Detection of antibiotics residues Diffusion method	PB-216 ed. II of 23.10.2015 based on the manufacturer's instructions Premi Test
Milk **Milk powder** **Cream**	Detection of antibiotics and other inhibitors Diffusion method	PN-91/A-86033 Delvotest SP NT, Delvotest T
Fruit, vegetable and vegetable with meat products	Shelf life of canned food Thermostatic test	PN-90/A-75052/03
Meat and meat products	Shelf life of canned food Thermostatic test	PN-A-82055-5:1994
Fish and fishery products	Shelf life of canned food Thermostatic test	PN-A-86732:1992
Drinking water, raw water, spring water, mineral water, table water, ice	Flavour Qualitative method	PB-201 ed. I of 01.02.2013
Drinking water, raw water, spring water, mineral water, table water, industrial water, technological water	Odour Qualitative method	
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**	Enumeration of Legionella Membrane filtration method	PB-404 ed. I of 30.10.2019

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

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

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

Within the flexible scope of accreditation, it is allowed:

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

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

Within the flexible scope of accreditation, it is allowed:

1) Adding the subject of research within the group of subjects
2) Adding the examined feature within the subject / group of subjects and methods (research technique)
3) Change in the measuring range of the test method
4) Applying 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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Microbiology Laboratory Przeźmierowo Rzemieślnicza 9, 62-081 Przeźmierowo		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Environmental samples from areas of cosmetics production and cosmetics trade: - 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
Environmental samples from areas of cosmetic production and cosmetic trade - 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
Flexible scope of accreditation [1), 2), 3), 4)]		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Food [1)] **Feed** **Environmental samples from areas of food production and food trade: - swab from the surface limited with template - swab from surface unlimited with template**	Detection of DNA specific for tested microorganism [2)] PCR method, Bax System	In-house test procedures [3)]
	Enumeration of microorganisms [2)] Colony count technique (spread plate method)	Standardized methods [4)] In-house test procedures [3)]
	Detection of microorganisms [2)] Culturing method test-tube	Standardized methods [4)] In-house test procedures [3)]
	Detection of microorganisms[2)] Culturing method test-tube with biochemical confirmation	Standardized methods [4)]
	Detection of microorganisms [2)] Culturing method with biochemical confirmation	Standardized methods [4)] In-house test procedures [3)]
	Detection of microorganisms[2)] Culturing method with biochemical and microscopic confirmation	Standardized methods [4)]
Food [1)] **Feed** **Environmental samples from areas of food production and food trade** [1)]	Detection of microorganisms [2)] Culturing method with biochemical and serological confirmation	Standardized methods [4)]
Food [1)] **Feed** **Environmental samples from areas of food production and food trade** [1)] **Drinking water, surface water, pool water, water**	Enumeration of microorganisms[2)] Colony count technique (pour plate method)	Standardized methods [4)] In-house test procedures [3)]
Food [1)] **Feed**	Most probable number of microorganisms [2)] Tube fermentation technique MPN	Standardized methods [4)]

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

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

1) Adding the subject of research within a group of subjects
2) Adding the examined feature within the subject / groups of subjects and methods (research technique)
3) Applying updated and implemented new methods described in-house test procedures
4) Applying 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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Microbiology Laboratory Tychy Goździków 1, 43-100 Tychy		
Flexible scope of accreditation [1), 2), 3), 4)]		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Food [1)] **Feed** **Environmental samples from areas of food production and food trade** [1)]	Detection of DNA specific for tested microorganism [2)] PCR method, Bax System	In-house test procedures [3)]
Food [1)] **Feed** **Environmental samples from areas of food production and food trade** [1)]	Enumeration of microorganisms [2)] Colony count technique (spread plate method)	Standardized methods [4)] In-house test procedures [3)]
Food [1)] **Feed** **Environmental samples from areas of food production and food trade** [1)] **Drinking water, surface water, pool water**	Enumeration of microorganisms [2)] Colony count technique (pour plate method)	Standardized methods [4)] In-house test procedures [3)]
Food [1)] **Feed** **Environmental samples from areas of food production and food trade** [1)]	Detection of microorganisms [2)] Culturing method test-tube	Standardized methods [4)] In-house test procedures [3)]
	Detection of microorganism [2)] Culturing method test-tube with biochemical confirmation	Standardized methods [4)] In-house test procedures [3)]
	Detection of microorganisms [2)] Culturing method with biochemical confirmation	Standardized methods [4)] In-house test procedures [3)]
	Detection of microorganisms [2)] Culturing method with biochemical and serological confirmation	Standardized methods [4)] In-house test procedures [3)]
Food [1)] **Feed** **Environmental samples from areas of food production and food trade** [1)]	Detection of microorganisms[2)] Culturing method with biochemical and microscopic confirmation	Standardized methods [4)]
Food [1)] **Feed**	Most probable number of microorganisms [2)] Tube fermentation technique MPN	Standardized methods [4)]
Drinking water, surface water, pool water, water	Detection and enumeration of microorganisms [2)] Membrane filtration method	Standardized methods [4)]

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

Within the flexible scope of accreditation, it is allowed:

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

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Cosmetics Microbiology Laboratory Tychy Goździków 1, 43-100 Tychy		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Paper, cardboard, paper and cardboard products	Permeability of the antimicrobial components Culturing, diffusion method	PN-EN 1104:2019-02
Chemical disinfectants and antiseptics	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 13697:2015-06; PN-EN 13697:2015-06/ A1:2019-08

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Flexible scope of accreditation [1), 2), 3), 4), 5), 6)]		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Environmental samples from areas of cosmetics production and cosmetics trade [1)] **Cosmetics**	Enumeration of microorganisms [2)] Colony count technique (pour plate method)	Standardized methods [5)] In-house test procedures [4)]
Cosmetics	Detection of microorganisms [2)] Culturing method test-tube	Standardized methods [5)] In-house test procedures [4)]
	Detection of microorganisms [2)] Culturing method test-tube with biochemical confirmation	Standardized methods [5)] In-house test procedures [4)]
Cosmetics	Effectiveness of antimicrobial protection of a cosmetic product Colony count technique (pour plate method)	PN-EN ISO 11930 [6)]
Chemical products [1)]	Enumeration of microorganisms [2), 3)] Colony count technique (pour plate method)	Standardized methods [5)]
Chemical products [1)]	Detection of microorganisms [2)] Culturing method test-tube with biochemical confirmation	Standardized methods [5)]
Environmental samples from areas of cosmetics production and cosmetics trade: **- contact plates (surfaces)** **- agar plates (air)**	Enumeration of microorganisms [2)] Colony count technique	Standardized methods [5)] In-house test procedures [4)]
Chemical disinfectants and antiseptics	Effectiveness of disinfectants and antiseptics [2)] Quantitative suspension method	Standardized methods [5)]

Within the flexible scope of accreditation, it is allowed:

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

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Microbiology Laboratory Maków Mazowiecki ul. Przemysłowa 5, 06-200 Maków Mazowiecki		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Fruit and vegetable products and vegetable with meat products	Cans durability Thermostat test method	PN-90/A-75052/03
Meat and meat products	Cans durability Thermostat test method	PN-A-82055-5:1994
Raw milk and non-cooked dairy products **Heat-processed milk and dairy products**	Number of aerobic mesophilic at 30°C for 72h Petrifilm method	PB-421 ed. 1 of 07.02.2023 Based on the manufacturer's instruction for 3M Petrifilm plates
	Number of Enterobacteriaceae at 37°C for 24h Petrifilm method	PB-422 ed. 1 of 07.02.2023 Based on the manufacturer's instruction for 3M Petrifilm plates
Food: **- Raw meat and raw meat products ready to be prepared (except poultry)** **- Ready-to-eat or ready-to-reheat meat products** **- Raw poultry and raw poultry products ready to be prepared** **- Ready-to-eat or ready-to-heat poultry products** **- Eggs and egg products (derivates)** **- Ready-to-eat or ready-to-reheat fish products** **- Fresh vegetables and fruits** **- Processed fruits and vegetables** **- Dried cereals, fruits, nuts, seeds and vegetables** **- Infant formula and infant cereals** **- Chocolate, confectionery and bread** **- Multi-component foods or meal components** **Feed and pet food** **Environmental samples (food and feed production):** **- environmental samples of defined surfaces** **- environmental samples of undefined surfaces, including the hands** **- washings**	Number of aerobic mesophilic at 30°C for 48h Petrifilm method	PB-421 ed. 1 of 07.02.2023 Based on the manufacturer's instruction for 3M Petrifilm plates
	Number of Enterobacteriaceae at 37°C for 24h Petrifilm method	PB-422 ed. 1 of 07.02.2023 Based on the manufacturer's instruction for 3M Petrifilm plates

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Flexible scope of accreditation [1), 2), 3), 4), 5), 6)]		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Environmental samples from food production areas as well as food trade: **- contact plates (surfaces)** **- agar plates (air)**	Enumeration of microorganism [2)] Colony count technique	Standardized methods [3)] In-house test procedure [4)]
Food [1)] **Feed** **Environmental samples from food production areas as well as food and cosmetics trade:** **- Environmental samples of defined surfaces** **- Environmental samples of undefined surfaces, including the hands**	Enumeration of microorganism [2)] Colony count technique (spread plate method)	Standardized methods [3)]
Food [1)] **Feed** **Environmental samples from cosmetics trade:** **- Environmental samples of defined surfaces** **- Environmental samples of undefined surfaces, including the hands** **Water** [1)]	Enumeration of microorganism [2)] Colony count technique (pour plate method)	Standardized methods [3)] In-house test procedure [4)]
Environmental samples from food production areas as well as food trade [1)]	Enumeration of microorganism [2)] Colony count technique (pour plate method)	Standardized methods [3)] In-house test procedure [4)]
Food [1)] **Feed**	Detection of microorganisms [2)] Culturing method with biochemical confirmation	Standardized methods [3)] In-house test procedure [4)]
Environmental samples from food production areas as well as food and cosmetics trade: **- Environmental samples of defined surfaces** **- Environmental samples of undefined surfaces, including the hands**	Detection of microorganisms[2)] Culturing method with biochemical confirmation	Standardized methods [3)] In-house test procedure [4)]

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Flexible scope of accreditation [1), 2), 3), 4), 5), 6)]		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Food [1)] **Feed** **Environmental samples from cosmetics trade:** **- Environmental samples of defined surfaces** **- Environmental samples of undefined surfaces, including the hands** **Samples taken at the primary production stage:** **- animal stool samples** **- plantar swabs**	Detection of microorganism [2)] Culturing method with biochemical and serological confirmation	Standardized methods [3)] In-house test procedure [4)]
Environmental samples from areas of food production and food trade [1)]	Detection of microorganism [2)] Culturing method with biochemical and serological confirmation	
Food [1)]	Detection of microorganism [2)] Culturing method with biochemical and microscopic confirmation	Standardized methods [3)] In-house test procedure [4)]
Environmental samples from food production areas as well as food and cosmetics trade: **- Environmental samples of defined surfaces** **- Environmental samples of undefined surfaces, including the hands**	Detection of microorganism [2)] Culturing method with biochemical and microscopic confirmation	Standardized methods [3)] In-house test procedure [4)]
Food [1)] **Feed**	Detection of microorganism [2)] Culturing method test-tube with biochemical confirmation	Standardized methods [3)] In-house test procedure [4)]
Environmental samples from food production areas as well as food and cosmetics trade: **- Environmental samples of defined surfaces** **- Environmental samples of undefined surfaces, including the hands**	Detection of microorganism [2)] Culturing method test-tube with biochemical confirmation	Standardized methods [3)] In-house test procedure [4)]
Food [1)]	Detection of microorganism [2)] Culturing method	In-house test procedure [4)]
	Most probable number of pathogenic staphylococci (coagulase positive) Tube fermentation technique MPN	PN-EN ISO 6888-3 [6)]
	Most probable number Escherichia coli Tube fermentation technique MPN	PN-ISO 7251 [6)]
	Most probable number of coliforms Tube fermentation technique MPN	PN-ISO 4831 [6)]

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Flexible scope of accreditation *1), 2), 3), 4), 5), 6)*		
Fruit and vegetable juices and concentrates	Enumeration of Alicyclobacillus spp probably spoilage Membrane filtration method with biochemical confirmation	IFU Method No. 12 6)
Food 1)	Detection of pathogenic bacteria 2) Fluorescence immunoenzymatic method (ELFA)	PB-420 5)
Environmental samples 1)	Detection of pathogenic bacteria 2) Fluorescence immunoenzymatic method (ELFA)	PB-420 5)
Water 1)	Enumeration of microorganism 2) Membrane filtration method	Standardized methods 3)

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

1) Adding the subject of research within a group of subjects
2) Adding the examined feature within the subject / groups of subjects and methods (research techniques)
3) Applying updated and implemented new methods described in the standardized methods
4) Applying updated and implemented new methods described in-house test procedures
5) Applying updated methods described in-house test procedures
6) Applying updated methods described in the standardized methods

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Sensory Analysis Laboratory Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Tea and coffee, **Food concentrates,** **Meat and meat products,** **Milk and dairy products,** **Non-alcoholic beverages (carbonated and non-carbonated soft drinks, juices, 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**	Determining perceptible sensory difference between samples Organoleptic attributes: appearance, colour, texture, consistency, odour, flavour Triangle test	PN-EN ISO 4120:2021-08
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,** **Materials for the production of packaging,** **Food storage products,** **Non-woven fabric, wooden products and components intended to come into contact with food**	Odour and taste transferred in direct contact Range: 0 – 4 Multicomparison test	DIN 10955:2023
Paper, cardboard	Odour and taste transferred in direct contact Range: 0 – 4 Multicomparison test	PN-EN 1230-1:2009 PN-EN 1230-2:2009
Reclosable packages designated as resistant to opening by children	Opening easiness Test with participants Full and sequential method	PN-EN ISO 8317:2016-03

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Flexible scope of accreditation [1), 2), 3), 4), 5)]		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Food and agricultural products [1)] **Cosmetics and chemical products** [1)]	Sensory attributes [2)] Simple descriptive test	Standardized methods [4)] In-house test procedures [3)] Methods described by a reputable organization [5)]
Food [1)]	Sensory attributes [2)] Scoring method	Standardized methods [4)] In-house test procedures [3)]

Within the flexible scope of accreditation, it is allowed:

1) Adding the subject of research within the group of subjects.
2) Adding the examined feature within the subject / groups of subjects and methods (research techniques).
3) Applying updated and implemented new methods described in the in-house test procedures.
4) Applying updated and implemented new methods described in the standardized methods.
5) Applying updated methods described by a reputable organization.

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Vitamin Analysis Laboratory Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	**Type of activity/ tested qualities/method**	**Reference document**
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	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
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	Tryptophan content Range: (0,001 – 3,0) % High performance liquid chromatography method with fluorescence detection (HPLC-FLD)	PB-136/HPLC ed. I of 06.02.2012
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	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

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

Within the flexible scope of accreditation, it is allowed:

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

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Liquid Chromatography Laboratory Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Coffee	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
Coffee and products containing coffee	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
Oilseeds	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
Non-alcoholic beverages	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
Animal feedstuffs **Meal**	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
Water, drinking water	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

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Herbal raw materials and products **Spices** **Tea** **Dietary supplements**	Tropane alkaloids content Range: atropine (5,0 – 1000) µg/kg scopolamine (5,0 – 1000) µg/kg High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS) Sum (calculated)	PB-498 ed. I of 23.05.2022
Honey	Tropane alkaloids content Range: atropine (0,50 – 100) µg/kg scopolamine (0,50 – 100) µg/kg High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS) Sum (calculated)	PB-498 ed. I of 23.05.2022
Herbal raw materials and products **Spices** **Tea** **Dietary supplements**	Pyrrolizidine alkaloids content: - echimidine - echimidine N-oxide - echinatine N-oxide - erucifoline - erucifoline N-oxide - europine - europine N-oxide - heliosupine - heliosupine N-oxide - heliotrine - heliotrine N-oxide - intermedine - intermedine N-oxide (sum of intermedine N-oxide and indicine N-oxide as intermedine N-oxide) - jacobine - jacobine N-oxide - lasiocarpine - lasiocarpine N-oxide - lycopsamine (sum of lycopsamine, indicine and echinatine as lycopsamine) - lycopsamine N-oxide - monocrotaline - monocrotaline N-oxide - retrorsine (sum of retrorsine and usaramine as retrorsine) - retrorsine N-oxide - rinderine - rinderine N-oxide - senecionine - senecionine N-oxide (sum of senecionine N-oxide and integerrimine N-oxide as senecionine N-oxide) - seneciphylline (sum of seneciphylline and spartioidine as seneciphylline) - seneciphylline N-oxide (sum of seneciphylline N-oxide and spartioidine N-oxide as seneciphylline N-oxide) - senkirkine Range: (5,0 – 1000) µg/kg High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS) Sum (calculated)	PB-498 ed. I of 23.05.2022

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Herbal raw materials and products **Spices** **Tea** **Dietary supplements**	Pyrrolizidine alkaloids content: - senecivernine (sum of senecivernine and integerrimine as senecivernine) - senecivernine N-oxide - trichodesmine - usaramine N-oxide Range (5,0 – 1000) µg/kg High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS) Sum (calculated)	PB-498 ed. I of 23.05.2022
Honey	Pyrrolizidine alkaloids content: - echimidine - echimidine N-oxide - echinatine N-oxide - erucifoline - erucifoline N-oxide - europine - europine N-oxide - heliosupine - heliosupine N-oxide - heliotrine - heliotrine N-oxide - intermedine - intermedine N-oxide (sum of intermedine N-oxide and indicine N-oxide as intermedine N-oxide) - jacobine - jacobine N-oxide - lasiocarpine - lasiocarpine N-oxide - lycopsamine (sum of lycopsamine, indicine and echinatine as lycopsamine) - lycopsamine N-oxide - monocrotaline - monocrotaline N-oxide - retrorsine (sum of retrorsine and usaramine as retrorsine) - retrorsine N-oxide - rinderine - rinderine N-oxide - senecionine - senecionine N-oxide (sum of senecionine N-oxide and integerrimine N-oxide as senecionine N-oxide) - seneciphylline (sum of seneciphylline and spartioidine as seneciphylline) - seneciphylline N-oxide (sum of seneciphylline N-oxide and spartioidine N-oxide as seneciphylline N-oxide) - senkirkine - senecivernine (sum of senecivernine and integerrimine as senecivernine) - senecivernine N-oxide - trichodesmine - usaramine N-oxide Range (0,50- 100) µg/kg High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS) Sum (calculated)	PB-498 ed. I of 23.05.2022

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Flexible scope of accreditation [1), 2), 3), 4), 5), 6), 7)]		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Agricultural products [1)] **Food** [1)]	Sugars and polyols content [2), 3)] High-performance liquid chromatography method with refractometric detection (HPLC-RID)	PB-79/HPLC [5)]
Food [1)]	Sugars content [2), 3)] High-performance anion exchange chromatography method with pulsed amperometry detection (HPIC-PAD)	PB-429 [5)]
Food [1)]	Polyols content [2), 3)] High-performance anion exchange chromatography method with pulsed amperometry detection (HPIC-PAD)	PB-429 [5)]
Food [1)]	Food additives content [2), 3)] High-performance liquid chromatography method with spectrophotometric detection (HPLCUV/Vis) and diode array detection (HPLC-DAD)	PN-EN 12856 [4)]
Food [1)]	Polycyclic aromatic hydrocarbons (PAHs) content [2), 3)] High-performance liquid chromatography method with fluorescence detection (HPLC-FLD)	PB-117/HPLC [5)]
Agricultural products [1)] **Food** [1)]	Mycotoxins content [2), 3)] High-performance liquid chromatography method with fluorescence detection (HPLC-FLD) spectrophotometric detection (HPLCUV/Vis) and diode array detection (HPLC-DAD)	Standardized methods [6)] In-house test procedures [7)]
Food [1)] **Agriculture products, including animal feedstuffs**	Mycotoxins content [2), 3)] High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS)	In-house test procedures [7)]
Agriculture products, including animal feedstuffs [1)] **Food** [1)]	Melamine and its analogues content [2), 3)] High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS)	In-house test procedures [7)]
Food [1)]	Nitrates and/or nitrites content [2)3)] High-performance liquid chromatography method with spectrophotometric detection (HPLCUV/Vis) and diode array detection (HPLC-DAD)	Standardized methods [6)]

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Flexible scope of accreditation [1), 2), 3), 4), 5), 6), 7)]		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Feed **Food** [1)]	Biogenic amins content [2), 3)] High-performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	Standardized methods [6)] In-house test procedures [7)]

Within the flexible scope of accreditation, it is allowed:

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2) Adding the examined feature within the subject / groups of subjects and methods (research technique).
3) Change in the measuring range of the test method.
4) Applying updated methods described in the standardized methods.
5) Applying updated methods described in the in-house test procedures.
6) Applying updated and implemented new methods described in the standardized methods
7) Applying updated and implemented new methods described in in-house test procedures.

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Gas Chromatography Laboratory Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
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**	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
Milk fat and dairy products	Foreign fats content Range: (2,0 – 100) % Gas chromatography method with flame ionization detection (GC-FID)	PN-EN ISO 17678:2019-07
Milk and dairy products **Meat products** **Sauces** **Chocolate goods** **Pastry goods** **Food concentrates**	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
Agriculture products, including animal feedstuffs, **Animal and vegetable fats and oils, oilseeds**	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
Cocoa butter **Chocolate couverture** **Chocolate**	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
Liquid fuels: unleaded petrol **Liquid petroleum products**	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
Liquid fuels: **fatty acids methyl esters (FAME)**	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

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Animal and vegetable fats and oils	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
Pastry goods and confectionery, Cereal and potato snacks	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

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Flexible scope of accreditation [1), 2), 3), 4), 5), 6)]		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Products containing ethyl alcohol and other solvents [1)]	Organic compounds concentration [2),3)] Gas chromatography method with flame ionization detection (GC-FID)	Standardized methods [6)] In-house test procedures [5)]
Agriculture products [1)] **including feed** **Food** [1)]	Sterols content [2), 3)] Gas chromatography method with flame ionization detection (GC-FID)	Standardized methods [6)] In-house test procedures [5)]
	Fatty acids content [2), 3)] Gas chromatography method with flame ionization detection (GC-FID) Sum (calculated)	Standardized methods [6)] In-house test procedures [5)]
Agriculture products, including animal feedstuffs [1)] **Food** [1)]	Pesticides residues content [2), 3)] Gas chromatography method with mass spectrometry (GC-MS), tandem mass spectrometry detection (GC-MS-MS)	Standardized methods [6)] In-house test procedures [5)]
	Pesticides residues content [2), 3)] High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS-MS)	Standardized methods [6)] In-house test procedures [5)]
	Antibiotics and chemotherapeutics residues content [2), 3)] Gas chromatography method with mass spectrometry (GC-MS)	Standardized methods [6)] In-house test procedures [5)]
Herbs	Pesticides residues content [2), 3)] Gas chromatography method with tandem mass spectrometry detection (GC-MS-MS)	PES/01 [4)]
	Dithiocarbamates content expressed as carbon disulphide [2), 3)] Headspace gas chromatography method with electron capture detection (HS-GC-ECD)	PES/03 [4)]
Food [1)]	Acrylamide content [3)] Gas chromatography method with mass spectrometry (GC-MS)	In-house test procedures [5)]

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Spectroscopy Laboratory Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Tea and coffee **Food concentrates** **Meat and meat products** **Milk and dairy products** **Non-alcoholic beverages** **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** **Ready-made culinary products** **Eggs and egg products** **Dietary supplements and nutritional foods** **Animal feedstuffs** **Oilseeds**	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
Tea and coffee **Food concentrates** **Meat and meat products** **Milk and dairy products** **Non-alcoholic beverages** **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** **Eggs and egg products** **Dietary supplements and nutritional foods** **Animal feedstuffs** **Oilseeds**	Mercury content Range: (0,0006 – 10) mg/kg Atomic absorption spectrometry method with amalgamation technique	PB-30/PICP ed. 6 of 09.06.2023
Fatty acids methyl esters (FAME)	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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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Meat and meat products	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_2O_5 (calculated)	
Fish and seafood	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_2O_5 (calculated)	
Animal and vegetable fats and oils	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
Plant cultivation aids: - soil improvement agents (soil amendments)	Elements content Range: Cd (0,300 – 20,0) mg/kg Cu (1,00 – 1000) mg/kg Cr (1,00 – 1000) mg/kg Ni (1,00 – 500) mg/kg Pb (2,00 – 1000) mg/kg Zn (1,00 – 3000) mg/kg As (2,00 – 100) mg/kg Ba (1,00 – 3000) mg/kg Co (1,00 – 300) mg/kg Mo (1,00 – 200) mg/kg P (100 – 250000) mg/kg Ca (100 – 250000) mg/kg Mg (25,0 – 125000) mg/kg Sn (2,00 – 300) mg/kg Fe (100 – 20000) mg/kg Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)	PB-186 ed. 6 of 05.01.2023
	Mercury content Range: (0,0006 – 50,0) mg/kg Atomic absorption spectrometry method with cold-vapor generation (CVAAS)	

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Tests carried out for the purposes of the regulated area: – *Regulation of the Minister of Economy of 16 July 2015 on the acceptance of waste to landfills (Journal of Laws of 2015, item 1277)* – *Regulation of the Minister of the Environment of 11 May 2015 on waste recovery outside the installations and devices (Journal of Laws of 2015, item 796)*		
Waste [DAB-11]**:** – **Mineral deposits and waste (I);** – **Construction waste (III);** – **Slag, ash and furnace dust (XI)**	Elements content Range: As (10,0 – 500) mg/kg Ba (100 – 3000) mg/kg Cd (2,00 - 250) mg/kg Co (10,0 - 500) mg/kg Cr (100 - 1000) mg/kg Cu (100 - 1000) mg/kg Mo (10,0 - 500) mg/kg Ni (100 - 500) mg/kg Pb (100 - 1000) mg/kg Zn (100 - 3000) mg/kg Sn (10,0 - 500) mg/kg Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)	PB-488/ICP ed. 2 of 07.02.2022
	Mercury content Range: (0,010 – 50,0) mg/kg Atomic absorption spectrometry method with cold-vapor generation (CVAAS)	PB-488/ICP ed. 2 of. 07.02.2022

[DAB-11)] 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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Flexible scope of accreditation [1), 2), 3), 4), 5)]		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Water, drinking water, sewage, soil, sediments **Waste** [O)] **group code: 17 03 80**	Concentration/ content of elements [2), 3)] Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)	Standardized methods [5)] In-house test procedures[4)]
Aqueous extract prepared from waste in Environmental Analysis Laboratory Małaszewicze [DAB-11] **and aqueous extract from waste** [O)] **group code: 17 03 80**	Concentration of elements [2), 3)] Atomic emission spectrometry method with inductively coupled plasma (ICP-OES) Elements content (calculated)	Standardized methods [5)] In-house test procedures [4)]
Water, drinking water, sewage, soil, sediments **Waste** [O)] **group code: 17 03 80**	Concentration/ content of mercury [3)] Atomic absorption spectrometry method with cold-vapor generation (CVAAS)	Standardized methods [5)] In-house test procedures [4)]
Aqueous extract prepared from waste in Environmental Analysis Laboratory Małaszewicze [DAB-11] **and aqueous extract from waste** [O)] **group code: 17 03 80**	Concentration of mercury [3)] Atomic absorption spectrometry method with cold-vapor generation (CVAAS) Mercury content (calculated)	
Food [1)] **Water, drinking water, sewage, soil, sediments** **Agriculture products, including animal feedstuffs**	Concentration/ content of elements [2), 3)] Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)	Standardized methods [5)] In-house test procedures [4)]
Food [1)]	Concentration/ content of elements [2), 3)] Flame atomic absorption spectroscopy method (FAAS)	In-house test procedures [4)]
Food [1)]	Concentration / content of elements [2), 3)] Atomic emission spectrometry method with inductively coupled plasma (ICP-OES)	In-house test procedures [4)]
	NaCl content (calculated)	
	P_2O_5 content (calculated)	

[O)] Waste codes given according to Minister of Climate Regulation on the waste catalogue.

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Dioxin Analysis Laboratory Chwaszczyńska 180, 81-571 Gdynia		
Flexible scope of accreditation [1), 2), 3), 4)]		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Food [1)] **Agriculture products including feed** [1)]	Determination of dioxin and dioxin-like PCB and indicator PCBs [2),3)] Gas chromatography method with high resolution mass spectrometry (GC-HRMS)	PB-408 [4)]

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2) Adding the examined feature within the subject / groups of subjects and method (research technique).
3) Change in the measuring range of the test method.
4) Applying updated methods described in the in-house test procedures

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Classical Analysis Laboratory Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Tea and coffee **Food concentrates,** **Meat and meat products,** **Non-alcoholic beverages (carbonated and non-carbonated soft drinks, juices, syrups),** **Fruits, vegetables, fruit and vegetable products and vegetable with meat products,** **Sweets and sugar confectionery** **Foodstuffs for particular nutritional uses,** **Frozen products,** **Dietary supplements and nutritional foods**	Vitamin C content Range: (10,0 – 100,0) mg/100 g Titrimetric method	PN-A-04019:1998 p. 2
Milk and dairy products, **Ready-made culinary products**	Vitamin C content Range: (10,0 – 30,0) mg/100 g Titrimetric method	
Food concentrates **Meat and meat products** **Fish and fishery products and seafoods** **Ready-made culinary products,** **Poultry and poultry products** **Milk and dairy products** **Cereals and cereal products** **Fruits, vegetables, fruit and vegetable products and vegetable with meat products** **Foodstuffs for particular nutritional uses** **Sweets and sugar confectionery** **Herbal raw materials and products, spices** **Animal and vegetable fats and oils** **Dietary supplements and nutritional foods** **Animal feedstuffs**	Water activity Range: (0,100 – 1,000) Vapour pressure method	PN-ISO 21807:2005
Bioethanol **Spirits**	Ethanol content (proof) Range: (60 – 99,9) % Gravimetric method	PN-A-79528-3:2007 p. 5.1
	Dry residue after evaporation Range: (0,001 – 0,050) g/l Gravimetric method	PN-A-79528-12-2000
Herbal raw materials and products, spices	Essential oils content Range: (0,5 – 4,5) ml/100g on dry matter Volumetric-distillation method	PB-414 ed. I of 18.12.2020

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Caseinates	Insolubility index (solubility) Range: (0,1 – 3,0) ml Centrifuge method	ISO 8156:2005 IDF-FIL 129:2005
Casein and caseinates	Scorched particles Range: A – D Filtration method	ISO 5739:2003 IDF-FIL 107:2003 PN-ISO 5739:2010
Alcoholic beverages: beer	Alcohol content Range: (0,2 – 10,0) % (v/v) Gravimetric method	PN-A-79093-2:2000+Ap1:2002
Milk	Peroxidase activity (qualitative test)	PB-22 ed. III of 04.02.2009
Fish and fishery products and seafood	Total volatile bases nitrogen (TVB-N) content Range: (4,0 – 150,0) mg N/100 g Titrimetric method	PN-A-86791:1995
Milk products: buttermilk powder	Insolubility index (solubility) Range: (0,1 – 3,0) ml Centrifuge method	ISO 8156:2005 IDF-FIL 129:2005
Dried milk	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
Dried milk	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
Bee honey	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)
Animal and vegetable fats and oils	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
Fruits and vegetables, Fruit and vegetable preserves	Sulphur dioxide content Range: (10 – 3000) mg/kg Titrimetric method	PN-90/A-75101/23+Az2:2002 PN-EN 13196:2002

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Meat and meat products	Hydroxyproline content Range: (0,1 – 1,25) % Spectrophotometric method	PN-ISO 3496:2000 ISO 3496:1994
Animal and vegetable fats and oils	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) % Acid value Range: (0,02 – 16,0) mg KOH/g Titrimetric method	PN-EN ISO 660:2021-03 ISO 660:2020
Feed, **Sharps**	Crude fibre content (fibre) Range: (0,2 – 25) % Gravimetric method	PN-EN ISO 6865:2002 PN-ISO 5498:1996
	Starch content Range: (1,0 – 80) % Polarimetric method	ISO 6493:2000 PN-R-64785:1994
Milk products: **Dry whey**	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
Milk products: **Dry cream**	Insolubility index (solubility) Range: (0,1 – 3,0) ml Centrifuge method	ISO 8156:2005 IDF-FIL 129:2005
Cereals - wheat	Sedimentation index Range: (10 – 70) ml Zeleny test	PN-EN ISO 5529:2010
Cereals and cereal products	Falling number Range: (60 – 480) s Viscosimetric method	PN-EN ISO 3093:2010 ISO 3093:2009
Milk and milk products, **Alcoholic beverages,** **Wine,** **Beer,** **Non-alcoholic beverages,** **Liquid food concentrates,** **Liquid dietary supplements,** **Oils**	Density Range: (0,8000 – 1,3200) g/cm^3 Oscillating method	PB-381 ed. 2 of 01.12.2021

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Spirits beverages (spirit, spirits drinks)	Ethanol content (proof) Range: (30 – 99,9) % Oscillating method	PN-A-79529-4:2005 p. 7.2
	Density Range: (0,8000 – 1,1000) g/cm^3 Oscillating method	PN-A-79529-4:2005 p. 6.2
Fruit and vegetable products	Total extract content Range: (4,0 – 40,0) % (m/m) Refractometric method	PN-A-75101-02:1990+Az1:2002 p. 2
Non-alcoholic beverages	Total extract content Range: (0,2 – 12,0) % (m/m) Refractometric method	PN-A-79033:1985 p.3.6.1
Sugar confectionery	Alcohol content Range: (0,05 – 5,5) g / 100g Pycnometric method	PN-A-88026:1981
Vegetable and fruits juices, nectars	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^3 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
Flexible scope of accreditation *1), 2), 3), 4), 5), 6), 7), 8)*		
Food 1)	pH 2) Potentiometric method	Standardized methods 4) In-house test procedures 3)
	Nitrites and nitrates content 2) Spectrophotometric method	Standardized methods 4) In-house test procedures 3)
	Total sugars after inversion content 2) Titrimetric method	Standardized methods 4) In-house test procedures 3)
	Carbohydrates content 2), 8) Spectrophotometric method	ISO 5765 7) PB-265 6)
Food 1) **Agriculture products, including animal feedstuffs**	Water and volatile matter content (dry matter) 2) Gravimetric method	Standardized methods 4) In-house test procedures 3) Legislation 5)
	Ash content 2) Gravimetric method	Standardized methods 4) In-house test procedures 3) Legislation 5)

Within the flexible scope of accreditation, it is allowed:

1) Adding the subject of research within the group of subjects.
2) Change in the measuring range of the test method.
3) Applying updated and implemented new methods described in-house test procedures.
4) Applying updated and implemented new methods described in the standardized methods.
5) Applying updated and implemented new methods described in the legislation.
6) Applying updated methods described in-house test procedures
7) Applying updated methods described in the standardized methods.
8) Adding the tested feature within the subject/group of subjects and methods (research 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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Nutrtion Analysis Laboratory Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Foodstuffs for particular nutritional uses **Sweets and sugar confectionery** **Non-alcoholic beverages (carbonated and non-carbonated soft drinks, juices, syrups),** **Spirits and alcoholic beverages,** **Tea and coffee** **Animal and vegetable fats and oils** **Milk and dairy products,** **Dietary supplements and nutritional foods** **Food additives** **Meat and meat products,** **Fish and fishery products and seafood,** **Ready-made culinary products,** **Poultry and poultry products,** **Eggs and egg products** **Food concentrates** **Fruits, vegetables, fruit and vegetable products and vegetable with meat products** **Herbal raw materials and products, spices** **Frozen products** **Oilseeds** **Cereals and cereal products** **Animal feedstuffs**	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
Milk and dairy products	Kjeldahl nitrogen content Range: (0,3 – 14,5) % Protein content Range: (2,0 – 93,0) % Titrimetric method	PN-EN ISO 8968-3:2008
Cereals and cereal products	Kjeldahl nitrogen content Range: (1,3 – 12,0) % Protein content Range: (8,0 – 75,0) % Titrimetric method	PN-EN ISO 20483:2014-02
Bioethanol **Spirits**	Acidity (as acetic acid) Range: (0,003 – 0,030) g/l ethanol 100 % Titrimetric method	PN-A-79528-7:2001

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Non-alcoholic beverages **Spirits and alcoholic beverages** **Milk and dairy products** **Meat and meat products** **Fish and fishery products and seafood** **Eggs and egg products** **Food concentrates** **Animal and vegetable fats and oils** **Ready-made culinary products** **Fruits, vegetables, fruit and vegetable products and vegetable with meat products** **Sugar confectionery** **Cereals and cereal products** **Bread and bakery products** **Dietary supplements and nutritional foods** **Herbal raw materials and products, spices,** **Oilseeds** **Feed**	Dietary fibre content Range: (0,5 – 50) % Gravimetric method	AOAC 991.43:1994
Tea and coffee **Food concentrates,** **Meat and meat products,** **Milk and dairy products,** **Non-alcoholic beverages (carbonated and non-carbonated soft drinks, juices, syrups),** **Spirits and alcoholic beverages,** **Oilseeds,** **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,** **Eggs and egg products,** **Carcases, clippings from carcasses,** **Dietary supplements and nutritional foods,** **Food additives**	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)

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Casein	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
Food concentrates **Cereal crisps**	Chlorides content Range: (0,1 – 40) % Titrimetric method	PN-A-79011-7:1998
Butter, milk products intended to spread	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
Milk products: **buttermilk powder**	Acidity Range: (0,01 – 0,2) % Titrimetric method	ADPI , Section 1, 2016
Dried milk	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
Fruits and vegetables, **Fruit and vegetable preserves**	Total acidity as particular acid content Range: (0,1 – 2,5) % (m/m) Titrimetric method	PN-90/A-75101/04+Az1:2002
Meat and meat products	Meat content (calculated)	PB-282 ed. II of 06.09.2016
Meat and meat products	Salt content Range: (0,1 – 10) % Titrimetric method	PN-73/A-82112+Az1:2002
	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
Fish and fishery products	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
Milk products: **Dry whey**	Acidity Range: (0,05 – 2,0) % Titrimetric method	PB-25 ed. III of 04.02.2009
Milk products: **Cheese**	Chlorides content Range: (0,2 – 6,0) % Potentiometric method	PN-EN ISO 5943:2007 ISO 5943:2006 IDF-FIL 88:2006

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Milk products: **Cream and sour cream**	Acidity Range: (0,2 – 30) °SH Titrimetric method	PN-78/A-86028+Az2:2002
Ready-made culinary products **Frozen culinary products**	Sodium chloride content Range: (0,5 – 5) % Titrimetric method	PN-85/A-82100

Subject of testing/product	Type of activity/tested qualities/method	Reference document
Flexible scope of accreditation *1), 2), 3), 4), 5)*		
Food 1) **Animal feedstuffs**	Fat content 2) Gravimetric method	Standardized methods4) In-house test procedures 3) Legislation 5)

Within the flexible scope of accreditation, it is allowed:

1) Adding the subject of research within the group of subjects.
2) Change in the measuring range of the test method.
3) Applying updated and implemented new methods described in-house test procedures.
4) Applying updated and implemented new methods described in the standardized methods.
5) Applying updated and implemented new methods described in the legislation.

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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Non-Food and Packaging Laboratory Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Household chemistry products: liquids and gels, powders, pastes, liquid soaps, shampoos	Density Range: (0,860 – 1,300) g/cm^3 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
	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	
Household chemistry products and cosmetics: - liquids and gels, powders, pastes, liquid soaps, shampoos	Anionic-active matter content Range: (0,50 – 30,00) % (m/m) Titrimetric method	PN-ISO 2271:2000
Household chemistry products and cosmetics: - liquids and gels, liquid soaps, shampoos	Density Range: (0,850 – 1,350) g/cm^3 Oscillating method	PB-489 ed. I of 15.10.2021
Paper, cardboard, packaging materials Textile, fabrics and final products Toys	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
Paper, cardboard and plastics	Colour fastness Range: (1 – 5) Visual method	PN-EN 648:2019-03
Paper, cardboard	Formaldehyde content Range: (1,0 – 30) mg/kg (0,0010 – 3,0) mg/dm^2 Spectrophotometric method	PN-EN 1541:2003
	Grammage Range: (25,0 – 1000) g/m^2 Gravimetric method	PN-EN ISO 536:2020-08
	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
	Benzophenone, 4-methylobenzophenone, 2- hyroxybenzophenone, 4- hyroxybenzophenone content Range: (0,02 – 10) mg/dm^2 Gas chromatography method with mass spectrometry (GC-MS)	PB-247/GC ed. I of 03.02.2014

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Paper, cardboard	4,4'-bis(dimethyloamino)benzophenone and 4,4'-bis(diethyloamino)benzophenone content Range: (0,0016 – 0,0048) mg/dm^2 Gas chromatography method with mass spectrometry (GC-MS)	PB-252/GC ed. I of 03.02.2014
Paper, fibre, cardboard	Diisopropylnaphthalene 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
Tissue paper and tissue products	Grammage Range: (15,0 – 85,0) g/m^2 Gravimetric method	PN-EN ISO 12625-6:2017-03
Paper and cardboard materials and products	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

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Paper, cardboard, packaging materials **Plastics and rubber products,** **Dyes, paints, lacquer,** **Toys**	Chromium (VI) content Range: (5,0 – 50,0) mg/kg Spectrophotometric method	PB-269 ed. I of. 02.06.2014
Plastic materials and products intended to come into contact with food	Specific migration of formaldehyde into simulants Range: (1,5 – 30) mg/kg Spectrophotometric method with 2,4–pentanodione	CEN/TS 13130-23:2005
	Specific migration of hexamethylenetetramine expressed as formaldehyde into simulants Range: (1,5 – 30) mg/kg Spectrophotometric method with 2,4–pentanodione	
Plastics and rubber products intended to come into contact with food	Specific migration of vinyl acetate Range: (1,2 – 24,0) mg/kg Headspace gas chromatography method with flame ionization detection (HS-GC-FID)	CEN/TS 13130-9:2005
	Specific migration of maleic anhydride (as maleic acid) Range: (3,0 – 60,0) mg/kg High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis)	CEN/TS 13130-24:2005
Plastic materials and products, Paper, cardboard, rubber	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
Materials and products intended to come into contact with food	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
Plastic and rubber materials and products	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-MS-MS)	PB-341/LC ed. I of 12.09.2016

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Subject of testing/product	Type of activity/ tested qualities/method	Reference document
Plastics, textiles	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
Plastics and rubber products intended to come into contact with food	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
Paper, cardboard, packaging materials	Mineral oils content (MOSH, MOAH) Range: (0,50 - 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
Plastic products intended to come into contact with food	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
Plastic products intended to come into contact with food	Specific migration of 1,3,5-tris (3,5-di-tertbutyl-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
Plastic materials and products intended to come into contact with food	Overall migration into vegetable oils Range: (2,0 – 100,0) mg/dm^2 Gravimetric method	PN-EN 1186-2:2022-12
Plastics and rubber products	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
Toys, materials for toys, plastics	Formaldehyde content in extract Range: (0,5 – 5,0) mg/kg Spectrophotometric method	PN-EN-71-11:2007
Toys, materials for toys made of plastics	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
Toys, materials for toys made of textiles, textiles	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
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	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 $_{total}$ (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 $_{total}$ (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 +A1:2017-12 PN-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)% PDBE (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
Toys, materials for toys made with plastics, paper and textiles	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^3 Dichloromethane (0,01-0,2) mg/dm^3 Toluene (0,13-2,6) mg/dm^3 Ethylbenzene (0,09-1,7) mg/dm^3 o-xylene (0,09-1,7) mg/dm^3 sum of m-xylene and p-xylene (0,18-3,4) mg/dm^3 Cyclohexanone (0,09-1,7) mg/dm^3 Methanol (0,4-8) mg/dm^3 Headspace gas chromatography method with mass spectrometry detection (HS-GC-MS)	PN-EN 71-11:2007
Toys, materials for toys made of plastics	Migration of solvent Range: 2-methoxyethyl acetate (0,05-1,0) mg/dm^3 2-ethoxyethanol (0,05-1,0) mg/dm^3 2-ethoxyethyl acetate (0,05-1,0) mg/dm^3 bis (2-methoxyethyl) ether (0,05-1,0) mg/dm^3 2-methoxypropyl acetate (0,05-1,0) mg/dm^3 styrene (0,1-2,0) mg/dm^3 isophorone (0,25-5,5) mg/dm^3 nitrobenzene (0,02-0,6) mg/dm^3 Gas chromatography method with mass spectrometry (GC-MS)	PN-EN 71-11:2007
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^3 Tri-o-tolyl phosphate (1,0-200,0) mg/dm^3 Pentabromodiphenyl ether (0,03-1,5)% Ocrabromodiphenyl 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
Paper, cardboard and plastic materials and products	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
Plastic materials and products, multi-layer materials, viscose films	Oxygen permeability Range: (0,005 – 2000) $cm^3/(m^2 \cdot 24/h)$ Coulometric sensor method	ASTM D 3985-17
Plastic materials and products, multi-layer materials, viscose films	Oxygen permeability Range: (0,005 – 2000) $cm^3/(m^2 \cdot 24/h)$ Coulometric sensor method	ASTM F 1927-20
Plastic materials and products, multi-layer materials, viscose films	Water vapour permeability Range: (0,005 – 1000) $cm^3/(m^2 \cdot 24/h)$ Infrared sensor method	ASTM F 1249-20
Plastic: single layer, multi-layer, printed **single layer, printed multi-layer materials and** **articles** **Paper and board materials and articles**	Screening of non-intentionally added substances (NIAS), determination in food simulants: MPPO (Tenax), 95 % ethanol, 50 % ethanol, 20 % ethanol, 10 % ethanol, 3 % acetic acid Range: (0,01 – 60) mg/kg Liquid chromatography method with Quadrupole Time-of-Flight Mass Spectrometry (LC-QTOF-MS)	PB-502 ed. 3 of 30.10.2023
Toys **Plastic: single layer, multi-layer, printed** **single layer, printed multi-layer materials and** **articles** **Paper and board materials and articles**	Bisphenols content Bisphenol A Bisphenol B Bisphenol F Bisphenol S Range: (0,05 - 30) mg/kg Liquid chromatography method with tandem mass spectrometry (LC-MS-MS)	PB-374 ed. 3 of 16.01.2023
Paper and board materials and articles	Glyoxal content Range: (12 – 190) mg/kg (0,0019 – 1,9) mg/dm^2 Spectrophotometric method	DIN 54603:2008-08
Paper and board materials and articles	Epichlorohydrin hydrolysis products content in the water extract Range: 1,3-dichloro-2-propanol (1,3-DCP) (1,0 - 25) µg/l 3-monochloro-propane-1,2-diol (3-MCPD) (5,0 - 70) µg/l Gas chromatography method with mass spectrometry (GC-MS)	PB-572 ed 1 z of 29.08.2023

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Subject of testing/product	Type of activity/ tested qualities/method	Reference document
Metal materials and articles	Release of elements to food simulant – citric acid 0,5% Range: Mg (0,050 – 1000) mg/kg Al (0,050 – 200) mg/kg Sb (0,005 – 10) mg/kg Co (0,005 – 10) mg/kg Mo (0,005 – 10) mg/kg Cr (0,050 – 100) mg/kg Mn (0,050 – 100) mg/kg Fe (0,050 – 500) mg/kg Ni (0,005 – 10) mg/kg Cu (0,005 – 10) mg/kg Zn (0,050 – 100) mg/kg Ag (0,005 – 10) mg/kg Sn (0,050 – 1000) mg/kg Ti (0,005 – 10) mg/kg V (0,001 – 10) mg/kg Ba (0,050 – 100) mg/kg Be (0,001 – 10) mg/kg Pb (0,005 – 10) mg/kg Li (0,005 – 10) mg/kg Hg (0,001 – 0,005) mg/kg Tl (0,001 – 1,0) mg/kg As (0,001 – 10) mg/kg Cd (0,001 – 10) mg/kg Zr (0,050 – 100) mg/kg Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)	PB-298 ed. 2 of 07.08.2023
Metal materials and articles	Release of elements to food simulant – water (DIN 10531) Range: Al (0,050 – 200) mg/kg Sb (0,005 – 10) mg/kg Co (0,005 – 10) mg/kg Mo (0,005 – 10) mg/kg Cr (0,050 – 100) mg/kg Mn (0,050 – 100) mg/kg Fe (0,050 – 500) mg/kg Ni (0,005 – 10) mg/kg Cu (0,005 – 10) mg/kg Zn (0,050 – 100) mg/kg Ag (0,005 – 10) mg/kg Sn (0,050 – 1000) mg/kg Ti (0,005 – 10) mg/kg V (0,001 – 10) mg/kg Ba (0,050 – 100) mg/kg Be (0,001 – 10) mg/kg Pb (0,005 – 10) mg/kg Li (0,005 – 10) mg/kg Hg (0,001 – 0,005) mg/kg Tl (0,001 – 1,0) mg/kg As (0,001 – 10) mg/kg Cd (0,001 – 10) mg/kg Zr (0,050 – 100) mg/kg Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)	PB-298 ed. 2 of 07.08.2023

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Flexible scope of accreditation [1), 2), 3), 4), 5)]		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Materials and products intended to come into contact with food [1)]	Determination in food simulants [2), 3)] High performance liquid chromatography method with fluorescence detection (HPLC-FLD)	Standardized methods [5)] In-house test procedures [4)]
Materials and products intended to come into contact with food [1)]	Overall migration into food simulants [2), 3)] Gravimetric method	Standardized methods [5)] In-house test procedures [4)]
Materials and products intended to come into contact with food [1)]	Specific migration into food simulants [2), 3)] High performance liquid chromatography method with spectrophotometric detection (HPLC-UV/Vis) and diode array detection (HPLC-DAD)	Standardized methods [5)] In-house test procedures[4)]
Materials and products intended to come into contact with food [1)]	Specific migration to food simulants [2), 3)] Headspace gas chromatography method with flame ionization detection (HS-GC-FID), Gas chromatography method with flame ionization detection (GC-FID)	Standardized methods [5)] In-house test procedures[4)]
Plastic and rubber materials and products [1)] **Paper and cardboard materials and products** [1)]	Polycyclic aromatic hydrocarbons content (PAH) and polychlorinated biphenyls content (PCB) [2), 3)] Gas chromatography method with mass spectrometry (GC-MS)	Standardized methods [5)] In-house test procedures[4)]
Paper and cardboard materials and products, plastics **Toys** [1)]	Phthalates content [2), 3)] Gas chromatography method with mass spectrometry (GC-MS)	Standardized methods [5)] In-house test procedures[4)]
Plastic and rubber materials and products [1)] **Paper and cardboard materials and products** [1)] **Candles, paraffin, waxes**	Volatile organic compounds and organic solvents content [2), 3)] Headspace gas chromatography method with flame ionization detection (HS-GC-FID), headspace gas chromatography method with mass spectrometry detection (HS-GC-MS)	Standardized methods [5)] In-house test procedures[4)]
Materials and products intended to come into contact with food [1)]	Elements migration to simulants [2), 3)] Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)	Standardized methods [5)] In-house test procedures[4)]
Toys [1)]	Elements migration [2), 3)] Mass spectrometry method by ionizing with inductively coupled plasma (ICP-MS)	Standardized methods [5)]
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** [1)]	Chromium (VI) content [3)] High-performance liquid chromatography with ionizing with inductively coupled plasma mass spectrometry method (HPLC-ICP-MS)	Standardized methods [5)]

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Flexible scope of accreditation [1), 2), 3), 4), 5), 6)]		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Toys [1)] **Materials and products intended to come into contact with food** [1)]	Amins content [2), 3)] High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS/MS)	Standardized methods [5)] In-house test procedures [4)]
Textiles and leather [1)]	Amins content [2), 3)] High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-M-/MS)	In-house test procedures [4)]
Plastic packaging materials and products [1)] **Materials and products intended to come into contact with food** [1)] **Paper and cardboard materials and articles** [1)]	Specific migration to food simulants [2), 3)] High-performance liquid chromatography method coupled with tandem mass spectrometry (LC-MS-MS)	In-house test procedures [4)]
Materials and products intended to come into contact with food [1)] **Paper and cardboard materials and articles** [1)]	Specific migration of mineral oils (MOSH, MOAH) into food simulants [2),3)] Range: (0,1-100) mg/kg Gas chromatography method with flame ionization detection coupled with high performance liquid chromatography method (HPLC-GC-FID)	PB-396/GC [6)]
Materials and articles intended to come into contact with food [1)]	Screening of non-intentionally added substances (NIAS), determination in food simulants [2), 3)] Gas chromatography method with mass spectrometry detection and flame ionization detector (GC-MS-FID)	In-house test procedures [4)]
Materials and articles intended to come into contact with food [1)]	Determination in food simulants [2), 3)] Liquid chromatography method with Quadrupole Time-of-Flight Mass Spectrometry (LC-QTOF-MS)	In-house test procedures [4)]

Within the flexible scope of accreditation, it is allowed:

1) Adding the subject of research within the group of subjects.
2) Adding the examined feature within the subject / groups of subjects and methods (research techniques).
3) Change in the measuring range of the test method.
4) Applying updated and implemented new methods described in-house test procedures.
5) Applying updated and implemented new methods described in the standardized methods.
6) Applying 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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Environmental Analysis Laboratory Gdynia Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Water, sewage	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 (calculated)	PB-102 ed. IV of 09.02.2022
	Chromium (VI) content Range: (0,01 – 5,0) mg/kg Spectrophotometric method	NANOCOLOR no. 91825 test Instruction ed. of 03.2021
Water, drinking water, sewage	pH Range: 3,0 – 10,0 Potentiometric method	PN-EN ISO 10523:2012
	Electrical conductivity Range: (10 – 3000) µS/cm Conductometric method	PN-EN 27888:1999
	Nitrates concentration Range: (0,20 – 70) mg/lNO_3^- (0,045 – 15,8) mg/l N-NO_3 Spectrophotometric method	PN-82/C-04576/08
	Nitrites concentration Range: (0,01 – 1,6) mg/l NO_2^- (0,003 – 0,48) mg/l N-NO_2 Spectrophotometric method	PN-EN 26777:1999
	Total Suspended solids Range: (2,0–4000) mg/l Gravimetric method	PN-EN 872:2007+Ap1:2007
	Biochemical oxygen demand (BOD_5) Range: (1 – 6000) mg/l O_2 Optical method	PN-EN ISO 5815-1:2019-12
	Total dissolved solids Range: (10 – 10000) mg/l Gravimetric method	PN-EN 15216:2010
	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
	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 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 1.09701.0001 test

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Water, drinking water, sewage	Total organic carbon (TOC) Range: (1,50 – 1000) mg/l Infrared spectrometry method	PN-EN 1484:1999
	Anionic detergents concentration (anionic surface acting agents) Range: (0,05 – 50,0) mg/l Spectrophotometric method	PN-EN 903:2002
	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- Cr Range: (5,00 – 10000) mg/l O_2 Spectrophotometric method	PN-ISO 15705:2005
	Organochlorine pesticides concentration Range: 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 detergents concentration (anionic surface acting agents) Range: (0,10 – 20) mg/l Spectrophotometric method	PB-379 ed. I of 10.05.2018 based on MERCK 1.02552.0001 cuvette test
	Non-ionic detergents concentration (non-ionic surface acting agents, non-ionic surfactants) Range: (0,3 – 50) mg/l Spectrophotometric method	PB-477 ed. I of 01.04.2021 based on NANOCOLOR 985047 test
	Sulphides concentration Range: (0,05 – 1,5) mg/l Spectrophotometric method	PB-476 ed. I of 01.04.2021 based on MERCK 1.14779.0001 test
	Formaldehyde concentration Range: (0,1 – 80) mg/l Spectrophotometric method	PB-478 ed. I of 23.06.2021 based on NANOCOLOR 985041 test

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Subject of testing/product	Type of activity/ tested qualities/method	Reference document
Water, drinking water	Permanganate index Range: (0,50 – 10) mg/l Titrimetric method	PN-EN ISO 8467:2001
	Ammonium ion 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
	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 - 100) NTU Nephelometric method	PN-EN ISO 7027-1:2016-09
	Summary concentration of calcium and magnesium Total hardness as $CaCO_3$ 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_3^- Titrimetric method	PN-EN ISO 99631:2001 +Ap1:2004
	Bromate concentration Range: (3 - 20) µg/l Ion chromatography (IC) method	PN-EN ISO 15061:2003 PN-EN ISO 11206:2013-07
	Acrylamide concentration Range: (0,05 – 5,0) µg/l High-performance liquid chromatography method coupled with tandem mass spectrometry (LCMS/MS)	PB-403 ed. I of 25.06.2020
	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, lambdaCyhalothrin, Malaoxon, Malathion, Mefenpyr-diethyl, Mecarbam, Methidathion, Metribuzin, Mevinphos, Oxyfluorfen, Parathionethyl, 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

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Sewage	Suspended matters suspension Range: (1,0 -100) ml/l Volumetric method	PN-72/C-04559/03
Waste [O)] 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**	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 IR	PN-EN 12457-4:2006 PN-EN 1484:1999
Waste [O)] 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**	pH Range: 3,0 – 10,0 Potentiometric method	PN-EN 12457-4:2006 PN-EN ISO 10523:2012
Waste [O)] 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**	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

[O)] 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
Aqueous extract from waste prepared in Environmental Analysis Laboratory Małaszewicze DAB-11 **And aqueous extract 19 08 01, 19 08 02, 19 08 05, 17 01 82, 17 03 80**	Concentration of total organic carbon (TOC) / dissolved organic carbon (DOC) Range: (1,50 – 1000) mg/l Infrared spectrometry method IR Content of total organic carbon (TOC) / dissolved organic carbon (DOC) (calculated)	PN-EN 1484:1999
	pH Range: 3,0 – 10,0 Potentiometric method	PN-EN ISO 10523:2012
	General dissolved substances concentration Range: (10,0 – 10000) mg/l Gravimetric method Total dissolved solid– TDS content (calculated)	PN-EN 15216:2010
	Electrical conductivity Range: (10 – 10000) µS/cm Conductometric method	PN-EN 27888:1999
	Sulphate concentration Range**:** (5,0 – 250) mg/l Spectrophotometric method Sulphate content (calculated)	PB-128 ed. I of 15.06.2011
	Chloride concentration Range: (5,0 – 10000) mg/l Titrimetric method Chloride content (calculated)	PN-ISO 9297:1994
Sewage sludge [O)] **group code: 19 08 05**	pH - in H_2O Range: 3,0 – 10,0 Potentiometric method	PN-EN ISO 10390:2022-09
Mineral soil	Assimilated phosphorus as P_2O_5 content Range: (1,0 – 50) mg/100 g Spectrophotometric method	PN-R-04023:1996
Soil, ground	pH - in H_2O pH - in KCl Range: 3,0 – 10,0 Potentiometric method	PN-EN ISO 10390:2022-09
Soil, ground	Phenols and cresols content Range: phenol (0,05 – 100) mg/kg o-cresol (0,05 – 100) mg/kg m-cresol (0,05 – 100) mg/kg p-cresol (0,05 – 100) mg/kg sum of cresols (0,15 – 300) mg/kg Gas chromatography method with mass spectrometry (GC-MS)	ISO TS 17182:2014

[O)] 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
Soil, ground	Granulometric composition in particle size range (0,063 – 20) mm by fraction Range: (0,5 – 99,5) % Sieve method	PKN-CEN ISO/TS 17892-4:2009 PK-EN ISO 17892-4:2017-01
	Granulometric composition in particle size range (0,002 – 0,063) mm by fraction Range: (0,5 – 99,5) % Areometric method	PKN-CEN ISO/TS 17892-4:2009 PK-EN ISO 17892-4:2017-01
	Granulometric composition in particle size range (0,0002 - 2,000) mm by fraction range: (0,5 – 99,5) % Laser diffraction method	PN-Z-19012:2020-02
	Filtration factor – water permeable Range: (0,01 d20 < 2 mm) (calculated based on the grading curve - the USBCS formula)	PB-483 ed. II of 23.05.2022
	Filtration factor – water permeable Range: ($1,0\cdot10^{-11}$ – $1,0\cdot10^{-5}$) m/s Hydraulic gradient method	PN-EN ISO 17892-11:2019-05
	Organochlorine pesticides concentration Range: aldrin (0,002– 5,0) mg/kg dieldrin (0,002 – 5,0) mg/kg endrin (0,002 – 5,0) mg/kg α-HCH (0,002 – 5,0) mg/kg β-HCH (0,002 – 5,0) mg/kg γ-HCH, lindane 0,001 – 5,0) mg/kg o,p-DDT (0,002 – 5,0) mg/kg o,p-DDE (0,002 – 5,0) mg/kg o.p-DDD (0,002 – 5,0) mg/kg p,p-DDT (0,002 – 5,0) mg/kg p,p-DDE (0,002 – 5,0) mg/kg p.p-DDD (0,002 – 5,0) mg/kg Gas chromatography method with mass spectrometry (GC-MS)	PN-ISO 10382:2007
	Polychlorinated biphenyls content Range: PCB 28 (0,02 – 5,0) mg/kg PCB 52 (0,02 – 5,0) mg/kg PCB 101 (0,02 – 5,0) mg/kg PCB118 (0,02 – 5,0) mg/kg PCB 138 (0,02 – 5,0) mg/kg PCB 153 (0,02 – 5,0) mg/kg PCB 180 (0,02 – 5,0) mg/kg Gas chromatography method with mass spectrometry (GC-MS)	PN-ISO 10382:2007

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Soil, ground **Sewage sludge [O)] group code:** **19 08 05**	Dry mass content / water content Range: (1,0 – 99,0) % Gravimetric method	PN-EN 15934:2013-02 method A
Soil, **Sewage sludge [O)]group code:** 19 08 05 **Waste [O)] 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 [O)] group code:** **19 08 05**	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
Soil, **Sewage sludge [O)] group code:** **19 08 05** **Waste [O)] group code:** **17 05 03*, 17 05 04, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08**	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
Sewage sludge [O)] group code:19 08 05 **Waste [O)] group code:** **17 05 03*, 17 05 04, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08**	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

[O)] 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
Soil, ground **Sewage sludge [O)] group code:19 08 05**	Loss on ignition of dry mass (LOI) / Organic compounds Range: (0,5 – 99,5) % Gravimetric method	PN-EN 15935:2022-01
Waste [O)] group code: **19 05 02, 19 05 03, 19 06 03, 19 06 04, 19 06 05, 19 06 06, 19 06 99**	Loss on ignition of dry mass (LOI) / Organic compounds Range: (0,5 – 99,5) % Gravimetric method	PN-EN 12879:2004
Soil, **Sewage sludge [O)] group code:19 08 05** **Waste [O)] group code:** **17 05 03*, 17 05 04, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08**	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
Sewage sludge [O)]group code:19 08 05 **Waste [O)] group code:** **17 05 03*, 17 05 04, 17 05 05*, 17 05 06, 17 05 07*, 17 05 08**	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
Plant cultivation aids: **- soil improvement agents (soil amendments)**	Dry mass content Range: (1,0 – 99,0) % Gravimetric method Water content (calculated)	PN-EN 15934:2013-02 method A
	Loss on ignition of dry mass (LOI) / Organic compounds content Range: (1,0 – 99,0) % Gravimetric method	PN-EN 15935:2022-01
	pH Range: (4,0 – 10,0) Potentiometric method	PN-EN 12176:2004
	Kjeldahl nitrogen content Range: (0,5 – 8,00) % Titrimetric method	PN-EN 13342:2002

[O)] Waste codes given according to Minister of Climate Regulation on the waste catalogue.

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Flexible scope of accreditation [1), 2), 3), 4)]		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Water, drinking water, sewage	Concentration of halogenated organic compounds [1), 2)] Purge&Trap gas chromatography method with mass spectrometry detection (P&T-GC-MS)	Standardized methods [4)] In-house test procedures [3)]
	Anions concentration [1), 2)] Ion chromatography (IC) method Sum (calculated)	Standardized methods [4)]
Water, drinking water	Cations concentration [1), 2)] Ion chromatography (IC) method Sum (calculated)	Standardized methods [4)]
Soil, ground	Content: - volatile aromatic hydrocarbons (BTEX) [1), 2)] - aliphatic and aromatic hydrocarbons C_6-C_{12} [2)] - chlorinated aliphatic hydrocarbons [2)] Headspace gas chromatography method with mass spectrometry detection (HS-GC-MS)	Standardized methods [4)]
	Polycyclic aromatic hydrocarbons content (WWA) [1), 2)] Gas chromatography method with mass spectrometry (GC-MS)	

[O)] 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 examined feature within the subject / groups of subjects and methods (research techniques).
2) Changing in the measuring range of the test method.
3) Applying updated and implemented new methods described in-house test procedures.
4) Applying 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
Testing carried out for the purposes of the regulated area: *-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)*		
Waste [DAB-11]**:** **– Mineral deposits and waste (I);** **– Construction waste (III);** **– Slag, ash and furnace dust (XI)**	Hydrocarbons content: Range: C10 – C40 (30 – 3000) mg/kg C12 – C35 (20 – 2000) mg/kg Gas chromatography method with flame ionization detection (GC-FID)	PN-EN 14039:2008
	Aliphatic and aromatic hydrocarbons content C_6-C_{12} (petroleum hydrocarbons) Range: (1,0 – 1000) mg/kg Headspace gas chromatography method with mass spectrometry detection (HS-GC-MS)	PN-EN ISO 22155:2016-07
	Volatile aromatic hydrocarbons content /BTEX/ Range: benzene (0,10 – 20) mg/kg ethylbenzene (0,10 – 20) mg/kg toluene (0,10 – 20) mg/kg o-xylene (0,10 – 20) mk/kg Total xylenes m,p- xylene (0,20 – 40) mg/kg Headspace gas chromatography method with mass spectrometry detection (HS-GC-MS) Total xylenes (calculated) Sum of BTEX (calculated)	PN-EN ISO 22155:2016-07

[DAB-11)] 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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Environmental Analysis Laboratory Małaszewicze Kolejarzy 6, 21-540 Małaszewicze		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Sewage sludge	Dry mass content / water content Range: (1,0 – 99,0) % Gravimetric method	PN-EN 15934:2013-02 method A
	Loss on ignition of dry mass (LOI) / Organic compounds content Range: (1,0 – 99,0) % Gravimetric method	PN-EN 15935:2022-01
Soil	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 15935:2022-01
	Total organic carbon (TOC) content Range: (0,50 – 60) % High-temperature combustion method with IR detection	PN-EN 10694:2002
Solid fuels: recovered fuel – alternative fuel **Solid recovered fuel (SRF)**	Moisture content in the analytical sample Range: (0,5 – 15,0) % Gravimetric method	PN-EN ISO 21660-3:2021-08
	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 ISO 21656:2021-08 method A
	Sulphur content Range: (0,10 – 2,00) % High temperaturę combustion method with IR detection	PN-EN ISO 21663:2021-06
	Carbon content Range: (20,0 – 80,0) % High temperature combustion method with IR detection	PN-EN ISO 21663:2021-06
	Gross calorific value Range: (7000 – 40000) kJ/kg Calorimetric method	PN-EN ISO 21654:2021-12
	Net calorific value (calculated)	
	Chlorine content Range: (0,10 – 2,00) % Titration method	PN-EN 15408:2011 PN-ISO 9297:1994
Solid fuels: solid biomass – solid biofuels	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
Solid fuels: solid biomass – solid biofuels	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)	
Flexible scope of accreditation [1, 2]		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Waste [1) O)] **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**	Loss on ignition of dry mass (LOI) / Organic compounds content Range: (1,0 – 99,0) % Gravimetric method	PN-EN 15935 [2)]
	Gross calorific value Range: (4000 - 30000) kJ/kg Calorimetric method	PN-EN 21654 [2)]
Waste [1) O)] **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** **Sewage sludge**	Total organic carbon (TOC) content Range: (0,50 – 60) % High-temperature combustion method with IR detection	PN-EN 15936 [2)]

[O)] 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 research within the group of subjects.
2) Applying updated 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
Testing carried out for the purposes of the regulated area: *- Regulation of the Minister of Economy of 16 July 2015 on the acceptance of waste at landfills (Journal of Laws 2015, item 1277)*		
Waste [O)] group code: **17 03 80** **Waste [DAB-11]:** **-Sediments and mineral wastes (I);** **-Construction waste (III);** **-Waste from waste treatment (VI);** **- Sediments from industrial processes (VII);** **-Sewage sludge (IX);** **-Slags, ashes and furnace dust (XI);** **-Plastics (XXV);** **-Wood (XXVI);** **-Leather and textiles (XXVII);** **-Other municipal waste, including mixed waste (XXVIII)** **- Other municipal waste and waste derived from municipal waste, including mixed waste, and other waste from sewage treatment and water treatment (XXVIII)**	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 15216:2022-03
	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 15934:2013-02 method A

[O)] Waste codes given according to Minister of Climate Regulation on the waste catalogue.

[DAB-11)] 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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Environmental Analysis Laboratory Zgierz ul. Aleksandrowska 61A, 95-100 Zgierz		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Water **Drinking water** **Sewage**	pH Range: 2,0 – 10,0 Potentiometric method	PN-EN ISO 10523:2012
	Electrical conductivity Range: (10 – 3000) µS/cm Conductometric method	PN-EN 27888:1999
	Nitrates concentration Range: (0,3 – 60) mg/l Nitrate nitrogen concentration Range: (0,068 – 13,5) mg/l Spectrophotometric method	PB-433 ed. I of. 01.06.2021 based on HACH 8039 method
	Nitrites concentration Range: (0,050 – 1,00) mg/l Nitrite nitrogen concentration Range: (0,02 – 0,300) mg/l Spectrophotometric method	PB-461 ed. I of 01.06.2021 based on HACH 8507 method
	Sulphate (VI) concentration Range: (2 – 300) mg/l Spectrophotometric method	PB-432 ed. I of 01.06.2021 based on HACH 8051 method
	Fluoride concentration Range: (0,10 – 10) mg/l Potentiometric method	PN-78/C-04588/03
	Total nitrogen concentration (calculated)	PB-463 ed. II of 23.07.2021
	Total alkalinity Range: (0,40 – 20) mmol/l Titrimetric method Bicarbonate concentration (calculated)	PN-EN ISO 9963-1:2001+Ap1:2004
	Chloride concentration Range: (5,00 – 10000) mg/l Titrimetric method	PN-ISO 9297:1994
	Volatile organic compounds concentration Range: chloroform (1,0 – 200) µg/l bromodichloromethane (1,0 – 200) µg/l dibromochloromethane (1,0 – 200) µg/l bromoform (1,0 – 200) µg/l tetrachloromethane (carbon tetrachloride) (0,5 – 25) µg/l 1,2-dichloroethane (1,0 – 200) µg/l trichloroethylene (1,0 – 200) µg/l tetrachloroethylene (1,0 – 200) µg/l hexachlorobutadiene (0,1 – 12,5) µg/l vinyl chloride (0,1 – 12,5) µg/l benzene (0,5 – 100) µg/l toluene (0,5 – 100) µg/l ethylbenzene (1,0 – 200) µg/l (m + p)-xylene (0,5 – 200) µg/l o-xylene (0,5 – 200) µg/l Purge & Trap gas chromatography method with mass spectrometry detection (P&T-GC-MS) Sum of volatile organic compounds (calculated)	PN-EN ISO 15680:2008

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Water **Drinking water**	Colour Range: (5 – 70) mg/l Pt Spectrophotometric method	PN-EN ISO 7887:2012 method C; PN-EN ISO 7887:2012/Ap1:2015-06
	Turbidity Range: (0,20 – 800) NTU Nephelometric method	PN-EN ISO 7027-1:2016-09
	Iron concentration Range: (0,02 – 3,00) mg/l Spectrophotometric method	PB-464 ed. I of 01.06.2021 based on HACH 8008 method
	Manganese concentration Range: (0,006 – 0,70) mg/l Spectrophotometric method	PB-465 ed. I of 01.06.2021 based on HACH 8149 method
	Aluminium concentration Range: (0,02 – 0,50) mg/l Spectrophotometric method	PB-466 ed. I of 01.06.2021 based on HACH LCK 301 method
	Sum of calcium and magnesium content Total hardness Range: (0,05 – 5,0) mmol/l (5 – 500) mg/l CaCO3 Titrimetric method	PN-ISO 6059:1999
	Ammonium ion concentration Range: (0,05 –1,0) mg/l Spectrophotometric method	PB-462 ed. I of 01.06.2021 based on HACH 8155 method
	Permanganate index Range: (0,50 – 10) mg/l O_2 Titrimetric method	PN-EN ISO 8467:2001
Water **Sewage**	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 phosphorus concentration Range: (0,020 – 50,0) mg/l Spectrophotometric method	PN-EN ISO 6878:2006 p.7 + Ap1:2010+Ap2:2010
	Total Suspended solids Range: (2,0 – 4000) mg/l Gravimetric method	PN-EN 872:2007+Ap1:2007
	Chemical oxygen demand-Cr Range: (5,00 – 10000) mg/l O_2 Spectrophotometric method	PN-ISO 15705:2005
	Biochemical oxygen demand (BOD_5) Range: (1 – 6000) mg/l O_2 Optical method	PN-EN ISO 5815-1:2019-12
	Total dissolved solids Range: (10 – 10000) mg/l Gravimetric method	PN-EN 15216:2010
	Dry residue Residue on ignition Range: (10 – 10000) mg/l Gravimetric method Ignition loss (calculated)	PN-78/C-04541

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Sewage	Sulphate (VI) concentration Range: (10 – 5000) mg/l Gravimetric method	PN-ISO 9280:2002
	Suspended matters suspension Range: (5 -100) ml/l Volumetric method	PN-72/C-04559/03

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Sampling Section Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Water **Surface waters**	Sampling for microbiological analysis	PN-EN ISO 19458:2007
Air	Air sampling for microbiological analysis Sedimentation and collision (impact) method	PB-250 ed. III of 30.03.2020
Drinking water	Water sampling for chemical and physical analysis Temperature Range: (4,0-50,0) °C	PN-ISO 5667-5:2017-10 PN-77/C-04584
Underground water	Sampling for chemical and physical analysis Temperature Range: (4,0-50,0) °C	PN-ISO 5667-11:2017-10 PN-77/C-04584
Surface water	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	PN-77/C-04584
Sewage	Sampling for chemical and physical analysis Manual method Automatic method Temperature of taken sewage sample Range: (4,0-50,0) °C	PN-ISO 5667-10:2021-11 PN-77/C-04584
	Total chlorine concentration Range: (0,05 – 2,0) mg/l Spectrophotometric method	PB-480 ed. I of 24.06.2021 based on HACH 8167 method
	Free chlorine concentration Range: (0,05 – 2,0) mg/l Spectrophotometric method	PB-480 ed. I of 24.06.2021 based on HACH 8021 method
Waste [O)] group code: **19 08 01, 19 08 02, 19 08 05,**	Sampling for chemical and physical analysis	PB-206 ed. II of 11.04.2019
Sewage sludge **Waste [O)] group code: 19 08 05**	Sampling for chemical and physical analysis	PN-ISO 5667-13:2011
Sewage sludge	Sampling for microbiological and biological analysis	PB-471 ed. 1 of 26.11.2021
Soil	Sampling for chemical and physical analysis	PN-R-04031:1997 PN-ISO 10381-4:2007 PN-ISO 10381-5:2009
Ground	Sampling for chemical and physical analysis	PN-ISO 10381-4:2007 PN-ISO 10381-5:2009
Environmental samples from food and cosmetics production areas as well as food and cosmetics trade	Sampling from the surface using contact plates and swabs for microbiological analysis	PN-EN ISO 18593:2018-08
Water on the swimming pools	Sampling for microbiological. chemical and physical analysis Temperature Range: (4,0-50,0) °C	PB-378 ed. II of 08.01.2021 PN-77/C-04584

[O)] 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 (including water on the swimming pools)	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
	Chloramines concentration Range: (0,05 – 4,0) mg/l Spectrophotometric method	PB-469 ed. I of 08.01.2021 based on HACH no. 10200 method
	Chloramines concentration Range: (0,05 – 4,0) mg/l Spectrophotometric 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 – 0,75) mg/l Spectrophotometric method	PB-468 ed. I of 03.06.2021 based on HACH no. 8311 method
Water, sewage	pH Range: 4,0-10,0 Potentiometric method	PN-EN ISO 10523:2012
Water **Drinking water** **Sewage**	Dissolved oxygen concentration Range: (0,2 – 15) mg/l O_2 Optical method	ISO 17289:2014

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Sampling carried out for the purposes of the regulated area: *- 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 the Environment of 6 February 2015 on municipal sewage sludge (Journal of Laws of 2015, item 257)*		
Waste [DAB-11]**:** **-Sediments and mineral wastes (I);** **-Construction waste (III);** **-Waste from waste treatment (VI);** **-Sewage sludge (IX);** **-Slags, ashes and furnace dust (XI);** **-Other municipal waste, including mixed waste (XXVIII)** **-Sediments from industrial processes (VII)** **-Waste from the processing of petroleum, natural gas and coal (XXI)** **-Plastics (XXV);** **-Wood (XXVI);** **-Leather and textiles (XXVII)**	Sampling for chemical and physical analysis	PB-206, ed. II of 11.04.2019

[DAB-11)] 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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Sample Homogenization and Physical Analysis Section Chwaszczyńska 180, 81-571 Gdynia		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Oilseeds	Impurities content Range: (0,1 – 20) % Gravimetric method	PN-EN ISO 658:2004 ISO 658:2002
Fish and fishery products and seafood	Glaze content Range: (5,0 – 45,0) % (m/m) Gravimetric method	CODEX STAN 165-1989 (Rev. 1-1995) PB-281 ed. IV of 11.01.2021
Cereals and cereal products	Gluten content Range: (15 – 37) % Gravimetric method	PN-77/A-74041 p. 2.5.2.
Cereals	Bulk density (mass per hectolitre) Range: (35 – 90) kg/hl Gravimetric method	PN-EN ISO 7971-3:2019
Canned meat	Tightness Vacuum method Visual method	PN-A-82055-4:1997+Az1:2002
Canned meat	Content of melt fat and jelly Range: (1,0 – 25,0) % Gravimetric method	PN-A-82056:1985 p. 2.3.8
Canned vegetables, fruit, meat and vegetable	Tightness Vacuum method	PN-A-75052-02:1990
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**	Weight Range: (1,0 – 5000) g Gravimetric method	PB-281 ed. IV of 11.01.2021
Dietary supplements	Weight Range: (0,15 – 100) g Gravimetric method	PB-281 ed IV of 11.01.2021
Canned meat	Weight Range: (50,0 – 5000) g Gravimetric method	PN-A-82056:1985 p. 2.3.5
Fruits, vegetables, fruit and vegetable products and vegetable with meat products	Weight Range: (50,0 – 5000) g Gravimetric method	PN-A-75101-15:1990 p. 2

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Subject of testing/product	Type of activity/tested qualities/method	Reference document
Milk and milk products, **Alcoholic beverages,** **Non-alcoholic beverages,** **Liquid food concentrates,** **Liquid dietary supplements** **Vegetable and fruits juices, nectars**	Volume measurement Range: (50 - 2000) ml Volumetric method	PB-369 ed. I of 04.01.2018
	Volume measurement Range: (50 - 5000) ml Gravimetric method	
Drinking water, **Non-alcoholic beverages,** **Beer**	Carbon dioxide concentration Range: (2,9 – 8,0) g/l Pressure method	PB-491 ed. 1 of 29.12.2021

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Dermatology and Stability Section Bajana 3D, 80-463 Gdańsk		
Subject of testing/product	**Type of activity/tested qualities/method**	**Reference document**
Cosmetic products, household chemistry products intended to come into contact with skin, hygiene products	Presence of an allergic reaction/contact eczema In vivo skin irritation method – open test	PB-562 ed. 2 of 30.10.2023
Cosmetic products, household chemistry products intended to come into contact with skin, hygiene products	Presence of an allergic reaction/contact eczema In vivo skin irritation method – semi-open and closed test	PB-561 ed. 2 of 30.10.2023

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Summary of changes
Scope of Accreditation No. AB 079

Status change: original version - A