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Accreditation Scope

	TÜBİTAK BUTAL Tübitak Bursa Test Ve Analiz Laboratuvarı		
	Accreditation Nr: AB-0494-T Revision Nr: 010 Date: 06.12.2021		
Test TS EN ISO/IEC 17025 AB-0494-T	As a Testing Laboratory		
	<table style="width: 100%; border: none;"> <tr> <td style="border: none; vertical-align: top;"> Address: Gaziakdemir Mah. Merinos Cad. No:11 Osmangazi 16190 BURSA/TÜRKİYE </td> <td style="border: none; vertical-align: top;"> Phone : 0 224 233 94 40 Fax : 0 224 233 94 45 E-Mail : butal.pkg@tubitak.gov.tr Website : http://www.butal.tubitak.gov.tr </td> </tr> </table>	Address: Gaziakdemir Mah. Merinos Cad. No:11 Osmangazi 16190 BURSA/TÜRKİYE	Phone : 0 224 233 94 40 Fax : 0 224 233 94 45 E-Mail : butal.pkg@tubitak.gov.tr Website : http://www.butal.tubitak.gov.tr
Address: Gaziakdemir Mah. Merinos Cad. No:11 Osmangazi 16190 BURSA/TÜRKİYE	Phone : 0 224 233 94 40 Fax : 0 224 233 94 45 E-Mail : butal.pkg@tubitak.gov.tr Website : http://www.butal.tubitak.gov.tr		

Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Textiles	Tensile properties of Fabrics-Determination of Maximum Force and Elongation at Maximum Force Strip Method	TS EN ISO 13934-1 BS EN ISO 13934-1 EN ISO 13934-1 ISO 13934-1
	Tensile Properties Of Fabrics- Determination Of Maximum Force Grab Method	TS EN ISO 13934-2 BS EN ISO 13934-2 EN ISO 13934-2 ISO 13934-2
	Tear Properties Of Fabrics- Determination Of Tear Force Using Ballistic Pendulum Method	TS EN ISO 13937-1 ISO 13937-1 BS EN ISO 13937-1 EN ISO 13937-1
	Tear Properties Of Fabrics- Determination Of Tear Force Of Trouser-Shaped Test Specimens (Single Tear Method)	ISO 13937-2 BS EN ISO 13937-2 TS EN ISO 13937-2 EN ISO 13937-2
	Tear Properties Of Fabrics- Determination Of Tear Force Of Wing-Shaped Test Specimens (Single Tear Method)	TS EN ISO 13937-3 BS EN ISO 13937-3 EN ISO 13937-3 ISO 13937-3
	Tear Properties Of Fabrics-Determination Of Tear Force Of Tongue-shaped Test Specimens (Double Tear Test)	ISO 13937-4 TS EN ISO 13937-4 BS EN ISO 13937-4 EN ISO 13937-4
	Bursting Properties Of Fabrics- Hydraulic Method For Determination Of Bursting Strength And Bursting Distension	TS EN ISO 13938-1 BS EN ISO 13938-1 EN ISO 13938-1 ISO 13938-1

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
(Textiles, continued)	Bursting Properties Of Fabrics- Pneumatic Method For Determination Of Bursting Strength And Bursting Distention	TS EN ISO 13938-2 EN ISO 13938-2 ISO 13938-2
	Determination Of Fabric Propensity To Surface Fuzzing And To Pilling Pilling Box Method	TS EN ISO 12945-1+T1 BS EN ISO 12945-1 EN ISO 12945-1 ISO 12945-1
	Determination Of Fabric Propensity To Surface Fuzzing And To Pilling Modified Martindale Method	TS EN ISO 12945-2 BS EN ISO 12945-2 EN ISO 12945-2 ISO 12945-2
	Determination Of The Fabric Propensity To Surface Pilling, Fuzzing Or Matting Random Tumble Pilling Method	TS EN ISO 12945-3 EN ISO 12945-3 ISO 12945-3
	Determination of fabric propensity to surface pilling, fuzzing or matting — Part 4: Assessment of pilling, fuzzing and matting by visual analysis	EN ISO 12945-4 TS EN ISO 12945-4
	Determination Of The Abrasion Resistance Of Fabrics By The Martindale Method Determination Of Specimen Breakdown	TS EN ISO 12947-2 BS EN ISO 12947-2 EN ISO 12947-2 ISO 12947-2
	Determination Of The Permeability Of Fabrics To Air	TS 391 EN ISO 9237 ISO 9237 BS EN ISO 9237 EN ISO 9237
	Textiles-Yarns	Yarns From Packages-Determination Of Single-End Breaking Force And Elongation At Break Using Constant Rate Of Extension (CRE) Tester

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Textiles-Woven Fabrics	Determination Of Number Of Threads Per Unit Length	TS 250 EN 1049-2 (Method A) EN 1049-2 (Method A) ISO 7211-2 (Method A) BS EN 1049-2 (Method A)
	Determination Of Mass Per Unit Area Using Small Samples	TS 251 Clause 6 TS EN 12127 EN 12127 ISO 3801 Method 5 BS EN 12127
Textiles	Oil Repellency - Hydrocarbon Resistance Test	TS EN ISO 14419 EN ISO 14419 ISO 14419
	Determination Of Resistance To Surface Wetting (Spray Test)	TS EN ISO 4920 EN ISO 4920 ISO 4920
	Determination of Resistance to Water Penetration Hydrostatic Pressure Test	TS EN ISO 811 EN ISO 811 ISO 811
	Determination Of pH Of Aqueous Extract (pH Meter Method)	TS EN ISO 3071 EN ISO 3071 ISO 3071
	Domestic Washing and Drying Procedures	TS EN ISO 6330 EN ISO 6330 ISO 6330 BS EN ISO 6330
	Preparation, Marking And Measuring Of Fabric Specimens And Garments In Tests For Determination Of Dimensional Change	TS EN ISO 3759 EN ISO 3759 ISO 3759
	Determination of Dimensional Change in Washing and Drying	TS EN ISO 5077 EN ISO 5077 ISO 5077

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Textiles-Accessory	Colour Fastness To Artificial Light Xenon Arc Fading Lamp Test	BS EN ISO 105 B02 ISO 105 B02 EN ISO 105 B02 TS EN ISO 105 B02
	Colour Fastness to Domestic And Commercial Laundering	TS EN ISO 105 C06 EN ISO 105 C06 ISO 105 C06
	Colour Fastness To Dry Cleaning	TS EN ISO 105 D01 EN ISO 105 D01 ISO 105 D01
	Colour Fastness To Rubbing	TS EN ISO 105 X12 EN ISO 105 X12 ISO 105 X12
	Colour Fastness To Perspiration	TS EN ISO 105 E04 EN ISO 105 E04 ISO 105 E04
	Colour Fastness To Water	TS EN ISO 105 E01 EN ISO 105 E01 ISO 105 E01
	Grey Scale For Assessing Change In Colour	TS 423-2 EN 20105-A02 EN 20105-A02 ISO 105 A02
	Grey Scale For Assessing Staining	ISO 105 A03 TS EN ISO 105 A03 EN ISO 105 A03

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
(Textiles-Accessory, continued)	Colour Fastness To Domestic And Commercial Laundering Using A Non-Phosphate Reference Detergent Incorporating A Low-Temperature Bleach Activator	ISO 105 C08 BS EN ISO 105 C08 TS EN ISO 105 C08 EN ISO 105 C08
	Colour Fastness To Light Of Textiles Wetted With Artificial Perspiration	TS EN ISO 105 B07 BS EN ISO 105 B07 EN ISO 105 B07 ISO 105 B07
Automotive Interior Materials	Determination Of Burning Behaviour Of Interior Materials Horizontal Burning	ISO 3795 TS ISO 3795 FMVSS 302
	Determination Of Burning Behaviour Of Interior Materials Horizontal Burning	UN/ECE R 118 Annex 6
Rubber or Plastic Coated Fabrics	Determination Of Tensile Strength And Elongation At Break	TS EN ISO 1421 EN ISO 1421 ISO 1421 BS EN ISO 1421
	Determination Of Tear Resistance - Constant Rate Of Tear Methods	TS EN ISO 4674-1 EN ISO 4674-1 ISO 4674-1 BS EN ISO 4674-1
Plastics	Methods Of Exposure To Laboratory Light Sources Fluorescent UV lamps	TS EN ISO 4892-3 EN ISO 4892-3 ISO 4892-3 BS EN ISO 4892-3 ASTM G154
Waste Water	Sampling Tehniques	TS ISO 5667-10
	Determination of Temperature Field and Laboratory Method	SM 2550 B

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
(Waste Water, continued)	Determination of Total Suspended Solids (TSS) Gravimetric Method	SM 2540 D
	Determination of Total Dissolved Solids (TDS) Gravimetric Method	SM 2540 C
	Determination of Settleable Solids Volumetric-Gravimetric Method	SM 2540 F
	Determination of Conductivity Laboratory Method	SM 2510 B
	Determination of pH Value Electrometric Method	SM 4500-H ⁺ B
	Determination of Dissolved Oxygen Optical (Luminescence) Method	SM 4500 O H
	Determination of Alkalinity Titrimetric Method	SM 2320 B
	Determination of Residual Chlorine Spectrophotometric Method	SM 4500-Cl G
	Determination of Total Oil and Grease Pre-treatment: Solvent Extraction Method Analysis: Gravimetric Method	SM 5520 B
	Determination Of Hydrocarbons Liquid-Liquid Extraction Method	SM 5520 B SM 5520 F
	Determination of Sulphate Spectrophotometric Method	SM 4500-SO ₄ ²⁻ E
	Determination of Chloride Titrimetric Method	SM 4500-Cl ⁻ C
	Determination of Floride Preliminary Treatment: Distillation Method Analysis: SPADNS Method	SM 4500-F ⁻ B SM 4500-F ⁻ D

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
(Waste Water, continued)	Determination of Phenols Preliminary Treatment : Distillation Method Analysis: Spectrophotometric Method	SM 5530 B SM 5530 D
	Determination of Total and Dissolved Organic Carbon (TOC/DOC) High Temperature Combustion Method	SM 5310 B
	Determination of Biochemical Oxygen Demand (BOD) Respirometric Method	SM 5210 D
	Determination of Toxicity Dilution Factor	Communique on Sampling and Analysis Methods for Water Pollution Control-Annex-1
	Determination of Total Phosphorus Preliminary Treatment : Digestion Method Analysis: Spectrophotometric Method	SM 4500-P B SM 4500-P D
	Determination of Free Cyanide Spectrophotometric Method	SM 4500-CN ⁻ E
	Determination of Total Cyanide Preliminary Treatment : Distillation Method Analysis: Spectrophotometric Method	SM 4500-CN ⁻ C SM 4500-CN ⁻ E
	Determination of Chromium (VI) Spectrophotometric Method	SM 3500-Cr B
	Determination of Methylene Blue Active Substances (MBAS) Preliminary Treatment : Separation by Sublation Analysis: Spectrophotometric Method	SM 5540 B SM 5540 C

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
(Waste Water, continued)	Aluminium (Al), Antimony (Sb), Arsenic (As), Barium (Ba), Beryllium (Be), Boron (B), Cadmium (Cd), Chromium (Cr), Cobalt (Co), Copper (Cu), Mercury (Hg), Zinc (Zn), Iron (Fe), Lead (Pb), Lithium (Li), Manganese (Mn), Molybdenum (Mo), Nickel (Ni), Selenium (Se), Silver (Ag), Vanadium (V) Preliminary Treatment 1: Nitric Acid Digestion Preliminary Treatment 2: Nitric Acid-Hydrochloric Acid Digestion Preliminary Treatment 3 : Microwave-Assisted Digestion Analysis: ICP-MS Spectrometric Method	SM 3030 E SM 3030 F SM 3030 K TS EN ISO 17294-1 TS EN ISO 17294-2
	Determination of Zinc (Zn), Iron (Fe) Magnesium (Mg), Calcium (Ca), Potassium (K), Sodium (Na) Preliminary Treatment 1: Nitric Acid Digestion Preliminary Treatment 2: Hydrochloric Acid Digestion Analysis: Direct Air-Acetylene Flame Method	SM 3030 E SM 3030 F SM 3111 B
	Determination of Mercury (Hg) Preliminary Treatment :Cold-Vapor Analysis: Atomic Absorption Spectrometric Method	SM 3112 B

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
(Waste Water, continued)	Determination of Elements Aluminium (Al), Barium (Ba), Boron (B), Cadmium (Cd), Calcium (Ca), Chromium (Cr), Copper(Cu), Iron (Fe), Silver (Ag), Cobalt (Co), Lead (Pb), Magnesium (Mg), Molybdenum (Mo), Nickel (Ni), Phosphorus (P), Potassium (K), Sodium (Na), Tin (Sn), Zinc (Zn) Preliminary Treatment 1: Nitric Acid Digestion Preliminary Treatment 2: Hydrochloric Acid Digestion Analysis: ICP-OES Spectrometric Method	SM 3030 E SM 3030 F TS EN ISO 11885
	Determination of Nitrogen of Ammonium Preliminary Treatment: Distillation Analysis: Spectrophotometric Method	SM 4500-NH ₃ B SM 4500-NH ₃ F
	Determination of Nitrite /Nitrogen of Nitrite Spectrophotometric Method	SM 4500-NO ₂ ⁻ B
	Determination of Nitrate /Nitrogen of Nitrate Spectrophotometric Method	TS 6231
	Determination of Total Cyanide Preliminary Treatment: Distillation Analysis: Titrimetric Method	SM 4500-CN ⁻ C SM 4500-CN ⁻ D
	Determination of Sulphite Spectrophotometric Method	SM 4500 SO ₃ ²⁻ C
	Determination of Sulphite Titrimetric Method	SM 4500-SO ₃ ²⁻ B
	Determination of Sulphide Titrimetric Method	SM 4500-S ²⁻ F

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
(Waste Water, continued)	Determination of Chemical Oxygen Demand (COD) Open Reflux Method-Titrimetric Method	SM 5220 B
	Determination of Color Spectrophotometric Method	SM 2120 C
	Determination of Color Spectrophotometric Method	TS EN ISO 7887 B
	Determination of Bromide, Chloride, Fluoride, Nitrate /Nitrogen of Nitrate, Nitrite /Nitrogen of Nitrite, Phosphate/Phosphorus of Phosphate and Sulfate IC Method	TS EN ISO 10304-1
	Determination of total kjeldahl nitrogen (TKN) Macro Kjeldahl Method	ISO 5663
	Determination of Total Nitrogen Oxidation Method	DIN 38409-28
	Determination of Total Solids Gravimetric Method	SM 2540 B
Water	Guidance on sampling of rivers and streams	TS EN ISO 5667-6
	Determination of pH Value Electrometric Method	SM 4500 H ⁺ B
	Determination of Dissolved Oxygen Optical (Luminescence) Method	SM 4500 O H
	Determination of Hardness EDTA Titrimetric Method	SM 2340 C
	Determination of Conductivity Laboratory Method	SM 2510 B
	Determination of Temperature Field and Laboratory Method	SM 2550 B

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 <p style="font-size: small; margin-top: 5px;"> Test TS EN ISO/IEC 17025 AB-0494-T </p>	<p>TÜBİTAK BUTAL Tübitak Bursa Test Ve Analiz Laboratuvarı</p> <p style="margin-top: 20px;"> Accreditation Nr: AB-0494-T Revision Nr: 010 Date: 06.12.2021 </p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
(Water, continued)	Determination of Color Spectrophotometric Method	SM 2120 C
	Determination of Color Spectrophotometric Method	TS EN ISO 7887 B
	Determination of Chemical Oxygen Demand (COD) Open Reflux Method Titrimetric Method	SM 5220 B
	Determination of Biochemical Oxygen Demand (BOD) Analysis Respirometric Method	SM 5210 D
	Determination of Total Solids Gravimetric Method	SM 2540 B
	Determination of Total Dissolved Solids (TDS) Gravimetric Method	SM 2540 C
	Determination of Total Suspended Solids (TSS) Gravimetric Method	SM 2540 D
	Determination of Settleable Solids Volumetric Gravimetric Method	SM 2540 F
	Determination of Nitrogen of Ammonium Preliminary Treatment: Distillation Method Analysis: Spectrophotometric Method	SM 4500-NH ₃ B SM 4500-NH ₃ F

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
(Water, continued)	Determination of total kjeldahl nitrogen (TKN) Macro Kjeldahl Method	ISO 5663
	Determination of Nitrate /Nitrogen of Nitrate Spectrophotometric Method	TS 6231
	Determination of Nitrite /Nitrogen of Nitrite Spectrophotometric Method	SM 4500-NO ₂ ⁻ B
	Determination of Total Nitrogen Oxidation Method	DIN 38409-28
	Determination of Total Phosphorus (P) Preliminary Treatment : Digestion Method Analysis: Spectrophotometric Method	SM 4500-P B SM 4500-P D
	Determination of Sulphide Titrimetric Method	SM 4500-S ₂ ⁻ F
	Determination of Sulphite Titrimetric Method	SM 4500 SO ₃ ²⁻ B
	Determination of Sulphite Spectrophotometric Method	SM 4500 SO ₃ ²⁻ C
	Determination of Sulphate Spectrophotometric Method	SM 4500 SO ₄ ²⁻ E
	Determination of Chloride (Cl) Titrimetric Method	SM 4500-Cl ⁻ C
	Determination of Floride Preliminary Treatment: Distillation Analysis: SPADNS Method	SM 4500-F B SM 4500-F D

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
(Water, continued)	Determination of Bromide, Chloride, Fluoride, Nitrate /Nitrogen of Nitrate, Nitrite /Nitrogen of Nitrite, Phosphate/Phosphorus of Phosphate and Sulfate IC Method	TS EN ISO 10304-1
	Determination of Elements Aluminium (Al), Barium (Ba), Boron (B), Cadmium (Cd), Calcium (Ca), Chromium (Cr), Copper (Cu), Iron (Fe), Silver (Ag), Cobalt (Co), Lead (Pb), Magnesium (Mg), Molybdenum (Mo), Nickel (Ni), Phosphorus (P), Potassium (K), Sodium (Na), Tin (Sn), Zinc (Zn) Preliminary Treatment 1: Nitric Acid Digestion Preliminary Treatment 2: Hydrochloric Acid Digestion Analysis: ICP OES Spectrometric Method	SM 3030 E SM 3030 F TS EN ISO 11885

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
(Water, continued)	Determination of Elements Aluminium (Al), Antimony (Sb), Arsenic (As), Barium (Ba), Beryllium (Be), Boron (B), Cadmium (Cd), Chromium (Cr), Cobalt (Co), Copper (Cu), Mercury (Hg), Zinc (Zn), Iron (Fe), Lead (Pb), Lithium (Li), Manganese (Mn), Molybdenum (Mo), Nickel (Ni), Selenium (Se), Silver (Ag), Vanadium (V) Preliminary Treatment 1: Nitric Acid Digestion Preliminary Treatment 2: Hydrochloric Acid Digestion Preliminary Treatment 3 : Microwave-Assisted Digestion Analysis: ICP-MS Spectrometric Method	SM 3030 E SM 3030 F SM 3030 K TS EN ISO 17294-1 TS EN ISO 17294-2
	Determination of Zinc (Zn), Iron (Fe) Magnesium (Mg), Calcium (Ca), Potassium (K), Sodium (Na) Preliminary Treatment 1: Nitric Acid Digestion Preliminary Treatment 2: Hydrochloric Acid Digestion Analysis: Direct Air-Acetylene Flame Method	SM3030 E SM 3030 F SM 3111 B
	Determination of Mercury (Hg) Preliminary Treatment :Cold-Vapor Atomic Analysis: Atomic Absorption Spectrometric Method	SM 3112 B
	Determination of Chromium (VI) Spectrophotometric Method	SM 3500-Cr B

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
(Water, continued)	Determination of Total Cyanide Preliminary Treatment : Distillation Analysis: Titrimetric Method	SM 4500-CN ⁻ C SM 4500-CN ⁻ D
	Determination of Free Cyanide Spectrophotometric Method	SM 4500-CN ⁻ E
	Determination of Total Cyanide Preliminary Treatment : Distillation Analysis: Spectrophotometric Method	SM 4500-CN ⁻ C SM 4500-CN ⁻ E
	Determination of Phenols Preliminary Treatment : Distillation Analysis: Spectrophotometric Method	SM 5530 B SM 5530 D
	Determination of Methylene Blue Active Substances (MBAS) Preliminary Treatment :Separation by Sublation Analysis: Spectrophotometric Method	SM 5540 B SM 5540 C
	Determination of Alkalinity Titrimetric Method	SM 2320 B
	Determination of Residual Chlorine Spectrophotometric Method	SM 4500-Cl G
	Determination of Total and Dissolved Organic Carbon (TOC/DOC) High Temperature Combustion Method	SM 5310 B
Sludges	Guidance on sampling of sludges from sewage and water treatment works	TS 9545 EN ISO 5667-13
Solid Waste	Solid Wastes Sampling	TS 12090
Coal, Coke	Determination of Total Sulphur (S) High-Temperature Tube Furnace Combustion Method	ASTM D 4239

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
(Coal, Coke, continued)	Proximate Analysis	ASTM D 7582
	Thermogravimetric Method	
	Determination of total moisture	TS ISO 589 Method A
	Determination of gross calorific value and calculation of net calorific value Bomb Calorimeter Method	TS ISO 1928
	Sample Preparation of Coal and Coke	TS ISO 13909-4 TS ISO 18283
	Calculation of Analyses to Different Bases	ISO 1170
Soil	Determination of Elements Aluminium (Al), Silisium (Si), Potassium (K), Calcium (Ca), Iron (Fe), Titanium (Ti), Phosphorus (P), Vanadium (V), Chromium (Cr), Manganese (Mn), Nickel (Ni), Copper (Cu), Zinc (Zn) Galium (Ga), Arsenic (As), Rubidium (Rb), Strontium (Sr), Zirconium (Zr), Cadmium (Cd), Tin (Sn), Antimony (Sb), Barium (Ba), Mercury (Hg), Lead (Pb) Energy-Dispersive X-Ray Fluorescence Spectrometry Method	In-house Method BTA-KÇDT010 (Modified from USGS, 02-223-U)

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Flue Gas	Determination of PCDD/PCDFs 2,3,7,8-TCDF;1,2,3,7,8-PeCDF;2,3,4,7,8 -PeCDF;1,2,3,4,7,8-HxCDF;1,2,3,6,7,8 -HxCDF;1,2,3,7,8,9-HxCDF;2,3,4,6,7,8 -HxCDF;1,2,3,4,6,7,8-HpCDF;1,2,3,4,7,8,9 -HpCDF;OCDF;2,3,7,8-TCDD;1,2,3,7,8 -PeCDD;1,2,3,4,7,8-HxCDD;1,2,3,6,7,8 -HxCDD;1,2,3,7,8,9-HxCDD;1,2,3,4,6,7,8 -HpCDD;OCDD;Total TeCDF;Total PeCDF;Total HxCDF;Total HpCDF;Total OcCDF;Total TeCDD;Total PeCDD;Total HxCDD-;Total HpCDD;Total OcDDF;Total PCDD;Total PCDF;Total PCDD/PCDF;Total TEQ;Preliminary Treatment :Automated Extraction and Clean-up- FMS System Analysis: Isotope Dillution HRGC/HRMS Method	TS EN 1948-2 EPA 3545A TS EN 1948-3
Animal Feeding Stuffs	Determination of Crude Protein Kjeldahl Method	TS EN ISO 5983-2
Vegetables and vegetable products, baby foods which includes vegetables	Determination of Nitrate Content IC Method	TS EN 12014-2
Cereals and cereal products (excluding corn and legumes)	Determination of Moisture Content	TS EN ISO 712
Cereals, Legumes and By-Products (Starch and its products, except seeds)	Determination of Ash Content	TS EN ISO 2171

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Accreditation Scope

	<p style="text-align: center;">TÜBİTAK BUTAL Tübitak Bursa Test Ve Analiz Laboratuvarı</p> <p style="text-align: center;">Accreditation Nr: AB-0494-T Revision Nr: 010 Date: 06.12.2021</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Oilseed meals	Determination of oil content Soxhlet Extraction Method	TS EN ISO 659
Cereals and cereal products	Determination of Crude Protein Kjeldahl method	TS EN ISO 20483
Oilseed meals	Determination of peroxide value Potentiometric Method	TS EN ISO 27107
Animal and vegetable fats and oils	Determination of Free Fatty Acid	TS EN ISO 660

Annex of the certificate (Page 19/20)


Accreditation Scope

 <p style="font-size: small; margin-top: 5px;">Test TS EN ISO/IEC 17025 AB-0494-T</p>	<p>TÜBİTAK BUTAL Tübitak Bursa Test Ve Analiz Laboratuvarı</p> <p style="margin-top: 20px;">Accreditation Nr: AB-0494-T Revision Nr: 010 Date: 06.12.2021</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Animal and vegetable fats and oils and food extracted fats	Determination of Fatty Acid Methyl Esters GC-FID Method Butyric acid (C4:0), Caproic Acid (C6:0), Caprylic Acid (C8:0), Capric Acid (C10:0), Undecanoic Acid (C11:0), Lauric Acid (C12:0), Tridecanoic Acid (C13:0), Myristic Acid (C14:0), Myristoleic Acid (C14:1), Pentadecanoic Acid (C15:0), Pentadecenoic Acid (C15:1), Palmitic Acid (C16:0), Palmitoleic Acid (C16:1), Margaric Acid (C17:0), Heptadecenoic Acid (C17:1), Stearic Acid (C18:0), trans Elaidic Acid (C18:1t), Oleic Acid (C18:1c), trans Linoleic Acid (C18:2t), Linoleic Acid (C18:2c), trans Linolenic Acid (C18:3t), γ Linolenic Acid (C18:3n6), Arachidic Acid (C20:0), α -Linolenic Acid (C18:3n3), Eicosenoic Acid (C20:1), Heneicosanoic Acid (C21:0), Eicosadienoic Acid (C20:2), Eicosatrienoic Acid (C20:3n6), Behenic Acid (C22:0), Eicosatrienoic Acid (C20:3n3), Erucic Acid (C22:1), Arachidonic Acid (C20:4), Tricosanoic Acid (C23:0), Docosadienoic Acid (C22:2), Eicosapentaenoic Acid (C20:5), Lignoseric Acid (C24:0), Nervonic Acid (C24:1), Docosahexaenoic Acid (C22:6), Saturated Fatty Acids, Mono-unsaturated Fatty Acids, Poly-unsaturated Fatty Acids, Total trans Fatty Acids	TS EN ISO 12966-2 TS EN ISO 12966-4 Official Journal No. 29181 (Turkish Food Codex Olive Oil and Pine Oil Analysis Methods, TFC: 2014/53)
Animal feeding stuffs	Determination of amylase-treated neutral detergent fibre content (aNDF)	TS EN ISO 16472 EN ISO 16472

Annex of the certificate (Page 20/20)

Accreditation Scope

 <p>TÜRKAK Test TS EN ISO/IEC 17025 AB-0494-T</p>	<p>TÜBİTAK BUTAL Tübitak Bursa Test Ve Analiz Laboratuvarı</p> <p>Accreditation Nr: AB-0494-T Revision Nr: 010 Date: 06.12.2021</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Animal feeding stuffs	Determination of Crude Fibre	Official Journal No. 29955 (For Official Control of Oath Sampling and Analysis About the Methods Regulation) EC 152/2009

End of Scope

G. Banu MÜDERRİSOĞLU
Secretary General