KARADENİZ TEKNİK TEST MERKEZİ

SERVICE SCOPE

Tested Materials / Products	Name of Test	Testing Method (National, International Standards, In-house Methods)
Personal Protective Equipment-Footwear	Specific Ergonomic Features	TS EN ISO 20344 Clause 5.1
Personal Protective Equipment-Footwear	Determination of Upper/Outsole and Sole Interlayer Bond Strength	TS EN ISO 20344 Clause 5.2 TS EN ISO 20344:2012 Clause 5.2 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Internal Toecap Length	TS EN ISO 20344 Clause 5.3.2.1 Metallic TS EN ISO 22568:1 Clause 5.2.1 Non-Metallic TS EN ISO 22568:2 Clause 5.2.1 TS EN ISO 20344:2012 Clause 5.3 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Flange Width of Toecaps	TS EN ISO 20344 Clause 5.3.2.2 Metallic TS EN ISO 22568:1 Clause 5.2.2 Non-Metallic TS EN ISO 22568:2 Clause 5.2.2
Personal Protective Equipment-Footwear	Determination of Impact Resistance	TS EN ISO 20344 Clause 5.4 TS EN ISO 20344:2012 Clause 5.4 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Compression Resistance	TS EN ISO 20344 Clause 5.5 TS EN ISO 20344:2012 Clause 5.5 (Withdrawn)
Personal Protective Equipment-Footwear	Behaviour of Toecaps (Thermal and Chemical)	TS EN ISO 20344 Clause 5.6 Metallic TS EN ISO 22568-1 Clause 5.5 Non-Metallic TS EN ISO 22568-2 Clause 5.5 TS EN ISO 20344:2012 Clause 5.6.2 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Leak Proofness	TS EN ISO 20344 Clause 5.7 TS EN ISO 20344:2012 Clause 5.7 (Withdrawn)
Personal Protective Equipment-Footwear	Dimensions of Perforation Resistant Inserts	TS EN ISO 20344 Clause 5.8 TS EN ISO 20344:2012 Clause 5.8.1 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of the Perforation Resistance of Footwear with a Metallic Perforation Resistant Insert	TS EN ISO 20344 Clause 5.9 TS EN ISO 20344:2012 Clause 5.8.2 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of the Perforation Resistance of Footwear with a Non-Metallic Perforation Resistant Insert	TS EN ISO 20344 Clause 5.10 (Method PL & Method PS) TS EN ISO 20344:2012 Clause 5.8.3 (Withdrawn)
Personal Protective Equipment-Footwear	Behaviour of Perforation Resistant Inserts (Thermal and Chemical)	TS EN ISO 20344 Clause 5.11 Metallic TS EN ISO 22568-3 Clause 5.3 Non-Metallic TS EN ISO 22568-4 Clause 5.3 TS EN ISO 20344:2012 Clause 5.6.3 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of the Flex Resistance of Perforation-Resistant Inserts	TS EN ISO 20344 Clause 5.12 Metallic TS EN ISO 22568-3 Clause 5.2 Non-Metallic TS EN ISO 22568-4 Clause 5.2 TS EN ISO 20344:2012 Clause 5.9 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Electrical Resistance	TS EN ISO 20344 Clause 5.13
Personal Protective Equipment-Footwear	Determination of Slip Resistance	TS EN ISO 20344 Clause 5.14 TS EN ISO 13287 TS EN ISO 20344:2012 Clause 5.11 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Slip Resistance	TS EN ISO 13287
Personal Protective Equipment-Footwear	Determination of Insulation Against Heat	TS EN ISO 20344 Clause 5.15 TS EN ISO 20344:2012 Clause 5.12 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Insulation Against Cold	TS EN ISO 20344 Clause 5.16 TS EN ISO 20344:2012 Clause 5.13 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Energy Absorption of the Seat Region	TS EN ISO 20344 Clause 5.17 TS EN ISO 20344:2012 Clause 5.14 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Resistance to Water for Whole Footwear: Dynamic Test	TS EN ISO 20344 Clause 5.19 TS EN ISO 20344:2012 Clause 5.15.2 (Withdrawn)
Personal Protective Equipment-Footwear	Measurement of The Height of the Upper	TS EN ISO 20344 Clause 6.2 TS EN ISO 20344:2012 Clause 6.2 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Tear Strength of Upper, Lining and/or Tongue	TS EN ISO 20344 Clause 6.3 Leather TS EN ISO 3377-2 Coated Fabric and Textile TS EN ISO 4674-1 Method B
Personal Protective Equipment-Footwear	Determination of Tensile Properties of the Upper Material	TS EN ISO 20344 Clause 6.4 Leather TS EN ISO 3376, Polymeric TS ISO 4643

Tested Materials / Products	Name of Test	Testing Method (National, International Standards, In-house Methods)
		Rubber TS EN ISO 20344 Clause 6.4.2.2 TS EN ISO 20344:2012 Clause 6.4.2 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Upper Flexing Resistance	TS EN ISO 20344 Clause 6.5
Personal Protective Equipment-Footwear	Determination of Water Vapour Permeability (WVP)	TS EN ISO 20344 Clause 6.6 TS EN ISO 20344:2012 Clause 6.6 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Water Vapour Absorption (WVA)	TS EN ISO 20344 Clause 6.7 TS EN ISO 20344:2012 Clause 6.7 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Water Vapour Coefficient (Water Vapor Permeability (WVP) + Water Vapor Absorption (WVA) is Determined)	TS EN ISO 20344 Clause 6.8 TS EN ISO 20344:2012 Clause 6.8 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Resistance to Hydrolysis of Upper	TS EN ISO 20344 Clause 6.10
Personal Protective Equipment-Footwear	Determination of Abrasion Resistance of Lining and Insock	TS EN ISO 20344 Clause 6.12 TS EN ISO 20344:2012 Clause 6.12 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Water Penetration and Water Absorption for Upper	TS EN ISO 20344 Clause 6.13 TS EN ISO 20344:2012 Clause 6.13 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Water Absorption and Desorption of Insole and Insock	TS EN ISO 20344 Clause 7.2 TS EN ISO 20344:2012 Clause 7.2 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Outsole Thickness and Cleat Height	TS EN ISO 20344 Clause 8.2.3
Personal Protective Equipment-Footwear	Determination of Tear Strength of Outsole	TS EN ISO 20344 Clause 8.3 TS ISO 34-1 Method A TS EN ISO 20344:2012 Clause 8.2 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Outsole Abrasion Resistance	TS EN ISO 20344 Clause 8.4 TS ISO 4649 Method A
Personal Protective Equipment-Footwear	Determination of Flexing Resistance of Outsole	TS EN ISO 20344 Clause 8.6 TS EN ISO 20344:2012 Clause 8.4 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Hydrolysis Resistance of Outsole	TS EN ISO 20344 Clause 8.7 TS ISO 5423 Annex-C & Annex-E TS EN ISO 20344:2012 Clause 8.5 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Resistance to Fuel Oil	TS EN ISO 20344 Clause 8.8 TS ISO 1817 Clause 8.3 TS EN ISO 20344:2012 Clause 8.6 (Withdrawn)
Personal Protective Equipment-Footwear	Determination of Resistance to Hot Contact	TS EN ISO 20344 Clause 8.9 TS EN ISO 20344:2012 Clause 8.7 (Withdrawn)
Foot and Leg Protectors- Metallic Toecaps	Determination of Toecap Flange Width	TS EN ISO 22568-1 Clause 5.2.2
Foot and Leg Protectors- Metallic Toecaps	Determination of Impact Resistance	TS EN ISO 22568-1 Clause 5.3
Foot and Leg Protectors- Metallic Toecaps	Determination of Compression Resistance	TS EN ISO 22568-1 Clause 5.4
Foot and Leg Protectors- Metallic Toecaps	Determination of Corrosion Resistance	TS EN ISO 22568-1 Clause 5.5
Foot and Leg Protectors – Non-Metallic Toecaps	Determination of Toecap Flange Width	TS EN ISO 22568-2 Clause 5.2.2
Foot and Leg Protectors- Non-Metallic Toecaps	Determination of Impact Resistance	TS EN ISO 22568-2 Clause 5.3
Foot and Leg Protectors- Non-Metallic Toecaps	Determination of Compression Resistance	TS EN ISO 22568-2 Clause 5.4

KARADENİZ TEKNİK TEST MERKEZİ

SERVICE SCOPE

Tested Materials / Products	Name of Test	Testing Method (National, International Standards, In-house Methods)
Foot and Leg Protectors- Non-Metallic Toecaps	Determination of Impact Resistance After Environmental Processes	TS EN ISO 22568-2 Clause 5.5
Foot and Leg Protectors-Metallic Perforation Resistant Inserts	Determination of Perforation Resistance	TS EN ISO 22568-3 Clause 5.1
Foot and Leg Protectors- Metallic Perforation Resistant Inserts	Determination of Flexing Resistance	TS EN ISO 22568-3 Clause 5.2
Foot and Leg Protectors-Metallic Perforation Resistant Inserts	Determination of Corrosion Resistance	TS EN ISO 22568-3 Clause 5.3
Foot and Leg Protectors- Non-Metallic Perforation Resistant Inserts	Determination of Perforation Resistance	TS EN ISO 22568-4 Clause 5.1 (Method PL & Method PS)
Foot and Leg Protectors - Non-Metallic Perforation Resistant Inserts	Determination of Flexing Resistance	TS EN ISO 22568-4 Clause 5.2
Foot and Leg Protectors - Non-Metallic Perforation Resistant Inserts	Test Methods for The Assessment Non-Metallic Perforation Resistant Inserts in Critical Environment	TS EN ISO 22568-4 Clause 5.3
Leather	Determination of Tensile Strength and Percentage Extension	TS EN ISO 3376
Leather	Determination of Tear Load Single Edge Tear	TS EN ISO 3377-1
Leather	Determination of Tear Load Double Edge Tear	TS EN ISO 3377-2
Leather	Determination of pH (Using pH Meter)	TS EN ISO 4045 TS EN ISO 20344 Clause 6.9
Leather	Chemical determination of chromium (VI) content (Colorimetric method, Using UV-VIS Spectrophotometer)	TS EN ISO 17075-1 TS EN ISO 20344 Clause 6.11
Leather	Colour Fastness to Cycles of to-and-fro Rubbing	TS EN ISO 11640
Leather	Determinations of Thickness	TS EN ISO 2589
Leather	Determination of Volatile Matter	TS EN ISO 4684
Leather	Determination of Water Vapour Permeability	TS EN ISO 14268
Leather	Determination of Water Resistance of Flexible Leather Repeated Linear Compression (Penetrometer)	TS EN ISO 5403-1
Rubber or Thermoplastic	Determination of Tear Strength	TS ISO 34-1 Method A
Rubber or Thermoplastic	Determination of Abrasion Resistance (Using a Rotating Cyclindrical Drum Device)	TS ISO 4649 Method A
Rubber or Thermoplastic	Determination of Density	TS ISO 2781 Method A
Plastics	Methods for Determining the Density of Non-Cellular Plastics (Immersion Method)	TS EN ISO 1183-1 Method A
Plastic, Rubber, Rubber Materials and Related Products	Determination of Tensile Stress-Elognation Properties	TS ISO 37
Plastic, Rubber, Rubber Materials and Related Products	Determination of Hardness by Shore Durometer (Shore Hardness)	TS EN ISO 868 (Type A, Type D)
Rubber- or Plastics-Coated Fabrics	Determination of Tear Resistance (Constant Rate of Tear Methods)	TS EN ISO 4674-1 Method B
Footwear-Uppers, Lining and Insocks	Determination of Tear Strength	TS EN ISO 17696
Footwear- Uppers and Linings	Water Vapour Permeability and Absorption	ISO 17699
Footwear- Uppers, Lining and Insocks	Colour Fastness to Rubbing	TS EN ISO 17700 Method A

KARADENİZ TEKNİK TEST MERKEZİ

SERVICE SCOPE

Tested Materials / Products	Name of Test	Testing Method (National, International Standards, In-house Methods)
Footwear-Uppers	Determination of Water Resistance	TS EN ISO 17702
Footwear- Uppers, Lining and Insocks	Abrasion Resistance	ISO 17704
Footwear-Uppers	Tensile Strength and Elongation	TS EN ISO 17706
Footwear- Outsoles	Flex Resistance	TS EN ISO 17707
Footwear	Upper Sole Adhesion	TS EN ISO 17708
Footwear	Walking Test for Whole Footwear	In House Method "LS-AY-023 Rev.No: 02" (Modified from TS EN ISO 20344 Clause 5.19)
Footwear	Standard Test Methods for Specific Applications (ESD)	TS EN IEC 61340-4-3
Footwear- Outsoles	Abrasion Resistance	TS EN 12770
Footwear- Outsoles	Tear Strength	TS EN 12771
Footwear- Outsoles	Tensile Strength and Elongation	TS EN 12803
Footwear- Outsoles	Compression Energy	TS EN 12743
Leather	Determination of Flex Resistance (Flexometer Method)	*TS EN ISO 5402-1
Fabrics	Tear Properties of Fabrics (Determination of Tear Force of Trouser- Shaped Test Specimens)	*TS EN ISO 13937-2
Footwear	Determination of Flex Resistance	*TS EN ISO 17694
Personal Protective Equipment-Footwear	Determination of Thickness of Upper	*TS EN ISO 20344 Clause 6.1
Personal Protective Equipment-Footwear	Determination of Insole Thickness	*TS EN ISO 20344 Clause 7.1
Personal Protective Equipment-Footwear	Determination of Abrasion Resistance of Insole	*TS EN ISO 20344 Clause 7.3
Personal Protective Equipment-Footwear	Determination of the Cleated Area	*TS EN ISO 20344 Clause 8.2.2
Personal Protective Equipment-Footwear	Determination of Cleat Design in the Waist Area	*TS EN ISO 20344 Clause 8.2.4

* Out of scope of accreditation