



TURKISH ACCREDITATION AGENCY

## ACCREDITATION CERTIFICATE

As a Testing Laboratory

**HES HACILAR ELEKTRİK SANAYİ VE TİCARET ANONİM ŞİRKETİ**

Central Address: ERCİYES MAH. HES CAD. HES KABLO NO:22 HACILAR Kayseri / Türkiye

is accredited in accordance with TS EN ISO/IEC 17025:2017 standard within the scope given in Annex following the assessment conducted by TURKAK.

**Accreditation Number : AB-0585-T**

**Accreditation Date : 16.11.2012**

**Revision Date / Number : 11.06.2025 / 06**

This certificate shall remain in force until **11.02.2029**, subject to continuing compliance with the standard **TS EN ISO/IEC 17025:2017**, related regulations and requirements.

Gülden Banu Müderrisoğlu  
Secretary General



Turkish Accreditation Agency (TURKAK) is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreement (MLA) and International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Agreement (MRA) in the scope of ISO/IEC 17025.

*This document has been signed by Gülden Banu Müderrisoğlu with a secure electronic signature in accordance with the electronic signature law numbered 5070. Use the QR code to verify the e-signed document.*

 <p>TürkAK Test TS EN ISO/IEC 17025 AB-0585-T</p>	<b>HES HACILAR ELEKTRİK SANAYİ VE TİCARET ANONİM ŞİRKETİ</b>	
	Accreditation Nr: AB-0585-T Revision Nr: 06 Date: 11.06.2025	
<b>Testing Laboratory</b>		
Address : ERCIYES MAH. HES CAD. HES KABLO NO:22 HACILAR Kayseri / Türkiye	Phone : +90 352 207 4500 Fax : - Email : yasin.mizrak@hes.com.tr Website : www.hes.com.tr	

Electrical, Electronic and IT Products and Devices		
Tested Materials / Products	Name of Test	Testing Method (National, International Standards, In-house Methods)
Cables	Electrical test methods for electric cables -- Part 3: Test methods for partial discharge measurements on lengths of extruded power cables	TS EN 60885-3 TS IEC 60502-2 Clause 18.2.5 TS IEC 60840 Clause 12.4.4 EN 60885-3 IEC 60502-2 Clause 18.2.5 IEC 60840 Clause 12.4.4
Cables	Bending Test	TS IEC 60502-2 Clause 18.2.4 TS IEC 60840 Clause 12.4.3 IEC 60502-2 Clause 18.2.4 IEC 60840 Clause 12.4.3
Cables	Tan $\delta$ measurement for cables of rated voltage 6/10 (12) kV and above	TS IEC 60502-2 Clause 18.2.6 and 18.2.3 TS IEC 60840 Clause 12.4.5 IEC 60502-2 Clause 18.2.6 and 18.2.3 IEC 60840 Clause 12.4.5
Cables	Heating Cycle Test	TS IEC 60502-2 Clause 18.2.7 TS IEC 60840 Clause 12.4.6 IEC 60502-2 Clause 18.2.7 IEC 60840 Clause 12.4.6
Cables	Impulse test followed by a voltage test	TS EN 60230 TS IEC 60502-1 Clause 17.4 TS IEC 60502-2 Clause 18.2.8 TS IEC 60840 Clause 12.4.7 EN 60230 IEC 60502-1 Clause 17.4 IEC 60502-2 Clause 18.2.8 IEC 60840 Clause 12.4.7
Cables	Voltage test for 4 h	TS IEC 60502-1 Clause 17.3 TS IEC 60502-2 Clause 18.2.9 IEC 60502-1 Clause 17.3 IEC 60502-2 Clause 18.2.9
Cables	Resistivity of semi-conducting screens	TS IEC 60502-2 Clause 18.2.10 TS IEC 60840 Clause 12.4.9 IEC 60502-2 Clause 18.2.10 IEC 60840 Clause 12.4.9
Cables	Strippability test for insulation screen	TS IEC 60502-2 Clause 19.23 IEC 60502-2 Clause 19.23
Cables	Water penetration test	TS IEC 60502-2 Clause 19.24 TS IEC 60840 Clause 12.5.14 IEC 60502-2 Clause 19.24 IEC 60840 Clause 12.5.14



## Accreditation Scope

 <b>TÜRKAK</b> <small>Test</small> <small>TS EN ISO/IEC 17025</small> <small>AB-0585-T</small>			<b>HES HACILAR ELEKTRİK SANAYİ VE TİCARET ANONİM ŞİRKETİ</b>  Accreditation Nr: AB-0585-T Revision Nr: 06 Date: 11.06.2025	
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Electric and optical fibre cables	Electric and optical fibre cables - Test methods for non-metallic materials -Part 201: General tests Measurement of insulation thickness	TS EN 60811-201 TS IEC 60502-1 Clause 18.1 TS IEC 60502-2 Clause 19.2 TS IEC 60840 Clause 10.6 EN 60811-201 IEC 60502-1 Clause 18.1 IEC 60502-2 Clause 19.2 IEC 60840 Clause 10.6		
Electric and optical fibre cables	Electric and optical fibre cables - Test methods for non-metallic materials - Part 202: General tests - Measurement of thickness of non-metallic sheath	TS EN 60811-202 TS IEC 60502-1 Clause 19.2 TS IEC 60502-2 Clause 19.3 IEC 60840 Clause 10.6 EN 60811-202 IEC 60502-1 Clause 18.2 IEC 60502-2 Clause 19.3 IEC 60840 Clause 10.6		
Electric and optical fibre cables	Tests for determining the mechanical properties of non-metal sheaths before and after ageing	TS EN 60811-401 TS EN 60811-501 TS IEC 60502-1 Clause 18.4 TS IEC 60502-2 Clause 19.6 IEC 60840 Clause 12.5.3 EN 60811-401 EN 60811-501 IEC 60502-1 Clause 18.4 IEC 60502-2 Clause 19.6 IEC 60840 Clause 12.5.3 IEC 60811-401		
Electric and optical fibre cables	Tests for determining the mechanical properties of insulation before and after ageing	TS EN 60811-401 TS EN 60811-501 TS IEC 60502-1 Clause 18.3 TS IEC 60502-2 Clause 19.5 IEC 60840 Clause 12.5.2 EN 60811-401 EN 60811-501 IEC 60502-1 Clause 18.3 IEC 60502-2 Clause 19.5 IEC 60840 Clause 12.5.2 IEC 60811-501		
Electric and optical fibre cables	Additional ageing test on pieces of completed cables	TS EN 60811-401 TS EN 60811-501 TS IEC 60502-1 Clause 18.5 TS IEC 60502-2 Clause 19.7 IEC 60840 Clause 12.5.4 EN 60811-401 EN 60811-501 IEC 60502-1 Clause 18.5 IEC 60502-2 Clause 19.7 IEC 60840 Clause 12.5.4		
Electric and optical fibre cables	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 402: Miscellaneous tests - Water absorption tests	TS EN 60811-402 TS IEC 60502-1 Clause 18.13 and 18.22 TS IEC 60502-2 Clause 19.15 EN 60811-402 IEC 60502-1 Clause 18.13 and 18.22 IEC 60502-2 Clause 19.15 IEC 60811-402		
Electric and optical fibre cables	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 405: Miscellaneous tests - Thermal stability test for PVC insulations and PVC sheaths	TS EN 60811-405 TS IEC 60502-2 Clause 19.19 EN 60811-405 IEC 60502-2 Clause 19.19		



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Electric and optical fibre cables	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 409: Miscellaneous tests - Loss of mass test for thermoplastic insulations and sheaths	TS EN 60811-409 TS IEC 60502-1 Clause 18.6 TS IEC 60502-2 Clause 19.8 TS IEC 60840 Clause 12.5.5 EN 60811-409 IEC 60502-1 Clause 18.6 IEC 60502-2 Clause 19.8 IEC 60840 Clause 12.5.5 IEC 60811-409
Electric and optical fibre cables	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 502: Mechanical tests - Shrinkage test for insulations	TS EN 60811-502 TS IEC 60502-1 Clause 18.16 TS IEC 60502-2 Clause 19.18 TS IEC 60840 Clause 12.5.16 EN 60811-502 IEC 60502-1 Clause 18.16 IEC 60502-2 Clause 19.18 IEC 60840 Clause 12.5.16
Electric and optical fibre cables	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 503: Mechanical tests - Shrinkage test for sheaths	TS EN 60811-503 TS IEC 60502-1 Clause 18.20 TS IEC 60502-2 Clause 19.22 TS IEC 60840 Clause 12.5.17 EN 60811-503 IEC 60502-1 Clause 18.20 IEC 60502-2 Clause 19.22 IEC 60840 Clause 12.5.17 IEC 60811-503
Electric and optical fibre cables	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 504: Mechanical tests - Bending tests at low temperature for insulation and sheaths	TS EN 60811-504 TS IEC 60502-1 Clause 18.8 TS IEC 60502-2 Clause 19.10 TS IEC 60840 Clause 12.5.7 EN 60811-504 IEC 60502-1 Clause 18.8 IEC 60502-2 Clause 19.10 IEC 60840 Clause 12.5.7 IEC 60811-504
Electric and optical fibre cables	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 505: Mechanical tests - Elongation at low temperature for insulations and sheaths	TS EN 60811-505 TS IEC 60502-1 Clause 18.8 TS IEC 60502-2 Clause 19.10 TS IEC 60840 Clause 12.5.7 EN 60811-505 IEC 60502-1 Clause 18.8 IEC 60502-2 Clause 19.10 IEC 60840 Clause 12.5.7 IEC 60811-505
Electric and optical fibre cables	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 506: Mechanical tests - Impact test at low temperature for insulations and sheaths	TS EN 60811-506 TS IEC 60502-1 Clause 18.8 TS IEC 60502-2 Clause 19.10 TS IEC 60840 Clause 12.5.7 EN 60811-506 IEC 60502-1 Clause 18.8 IEC 60502-2 Clause 19.10 IEC 60840 Clause 12.5.7 IEC 60811-506
Electric and optical fibre cables	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 507: Mechanical tests - Hot set test for cross-linked materials	TS EN 60811-507 TS IEC 60502-1 Clause 16.9 TS IEC 60502-2 Clause 19.13 TS IEC 60840 Clause 12.5.10 EN 60811-507 IEC 60502-1 Clause 16.9 IEC 60502-2 Clause 19.13 IEC 60840 Clause 12.5.10 IEC 60811-507



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Electric and optical fibre cables	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 508: Mechanical tests - Pressure test at high temperature for insulation and sheaths	TS EN 60811-508 TS EN 60502-1 Clause 18.7 TS EN 60502-2 Clause 19.9 TS IEC 60840 Clause 12.5.6 EN 60811-508 EN 60502-1 Clause 18.7 EN 60502-2 Clause 19.9 IEC 60840 Clause 12.5.6 IEC 60811-508
Electric and optical fibre cables	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 509: Mechanical tests - Test for resistance of insulations and sheaths to cracking (heat shock test)	TS EN 60811-509 TS IEC 60502-1 Clause 18.9 TS IEC 60502-2 Clause 19.11 TS IEC 60840 Clause 12.5.8 EN 60811-509 IEC 60502-1 Clause 18.9 IEC 60502-2 Clause 19.11 IEC 60840 Clause 12.5.8 IEC 60811-509
Electric and optical fibre cables	Electric and optical fibre cables - Test methods for non-metallic materials -- Part 605: Physical tests - Measurement of carbon black and/or mineral filler in polyethylene compounds	TS EN 60811-605 TS IEC 60502-1 Clause 18.15 TS IEC 60502-2 Clause 19.17 TS IEC 60840 Clause 12.5.12 EN 60811-605 IEC 60502-1 Clause 18.15 IEC 60502-2 Clause 19.17 IEC 60840 Clause 12.5.12 IEC 60811-605
Electric and optical fibre cables	Measurement of smoke density of cables burning under defined conditions - Part 2: Test procedure and requirements	TS EN 61034-2 TS EN 61034-2 /A1 EN 61034-2 IEC 61034-2
Electric and optical fibre cables	Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity	TS EN 60754-2 EN 60754-2
Cables	Tests for electric cables under fire conditions - Circuit integrity - Part 25: Procedures and requirements - Optical fibre cables	IEC 60331-25
Cables	Tests for electric cables under fire conditions - Circuit integrity - Part 21: Procedures and requirements - Cables of rated voltage up to and including 0, 6/1, 0 kV	TS IEC 60331-21 IEC 60331-21
Cables	Tests for electric cables under fire conditions - Circuit integrity - Part 1: Test method for fire with shock at a temperature of at least 830°C for cables of rated voltage up to and including 0,6/1,0 kV and with an overall diameter exceeding 20 mm	IEC 60331-1
Electric and optical fibre cables	Tests on electric and optical fibre cables under fire conditions - Part 3-24: Test for vertical flame spread of vertically-mounted bunched wires or cables - Category C	TS EN 60332-3-24 EN 60332-3-24 IEC 60332-3-24
Electric and optical fibre cables	Tests on electric and optical fibre cables under fire conditions - Part 1-2: Test for vertical flame propagation for a single insulated wire or cable - Procedure for 1 kW pre-mixed flame	TS EN 60332-1-2 EN 60332-1-2
Cables	Common test methods for cables under fire conditions - Heat release and smoke production measurement on cables during flame spread test - Test apparatus, procedures, results	TS EN 50399 EN 50399
Cables	Method of test for resistance to fire of unprotected small cables for use in emergency circuits	TS EN 50200 EN 50200

