



CERTIFICATE OF ACCREDITATION

This is to attest that

SIECHEM TECHNOLOGIES PVT. LTD

RS 104/8 & 105/7, 107/6, SEDARAPET MAIN ROAD
PONDICHERRY, PY, 605111, INDIA

Testing Laboratory TL-1231

has met the requirements of AC89, *IAS Accreditation Criteria for Testing Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories*. This organization is accredited to provide the services specified in the scope of accreditation.

Effective Date January 19, 2024



A handwritten signature in black ink, reading 'Raj Nathan'.

President

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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SIECHEM TECHNOLOGIES PVT. LTD

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Accredited to ISO/IEC 17025:2017

Effective Date January 19, 2024

Electrical – Cables and Wires – Insulated Wires and Cables Testing	
BS EN 13501-6	Fire classification of construction products and building elements Part 6 : Classification using data from reaction to fire tests on electric cables
BS EN 50214	Flat polyvinyl chloride sheathed flexible cables
BS EN 50264-1	Railway rolling stock power and control cables having special fire performance - Part 1: General requirements
BS EN 50264-3-1	Railway applications. Railway rolling stock power and control cables having special fire performance Cables with crosslinked elastomeric insulation with reduced dimensions. Single core cables
BS EN 50266-2-4	Common test methods for cables under fire conditions - Test for vertical flame spread of vertically-mounted bunched wires or cables - Part 2-4: Procedures - Category C
BS EN 50266-2-5	Common test methods for cables under fire conditions - Test for vertical flame spread of vertically-mounted bunched wires or cables - Part 2-5 Procedures - Small cables - Category D
BS EN 50267-2-3	Common Test Methods For Cables Under Fire Conditions. Tests On Gases Evolved During Combustion Of Materials From Cables. Procedures. Determination Of Degree Of Acidity Of Gases For Cables By Determination Of The Weighted Average Of PH And Conductivity.
BS EN 50305	Railway applications - Railway rolling stock cables having special fire performance - Test methods
BS EN 50306-1	Railway applications - Railway rolling stock cables having special fire performance - Thin wall - Part 1: General requirements
BS EN 50306-2	Railway applications - Railway rolling stock cables having special fire performance - Thin wall - Part 2: Single core cables
BS EN 50306-3	Railway applications - Railway rolling stock cables having special fire performance - Thin wall - Part 3: Single core and multicore cables screened and thin wall sheathed
BS EN 50306-4	Railway applications - Railway rolling stock cables having special fire performance - Thin wall - Part 4: Multicore and multipair screened or not screened sheathed cables

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BS EN 50382-1	Railway applications. Railway rolling stock high temperature power cables having special fire performance General requirements
BS EN 50395	Electrical test methods for low voltage energy cables
BS EN 50396	Non electrical test methods for low voltage energy cables
BS EN 50399	Common test methods for cables under fire conditions - Heat release and smoke production measurement on cables during flame spread test - Test apparatus, procedures, results
BS EN 50525-1	Electric cables - Low voltage energy cables of rated voltages up to and including 450/750 V (U0/U) - Part 1: General requirements
BS EN 60068-2-78	Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state
BS EN 60332-1-2	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
BS EN 60684-2	Flexible insulating sleeving - Part 2: Methods of test
BS EN 60754-1	Test on gases evolved during combustion of materials from cables - Part 1: Determination of the halogen acid gas content
BS EN 60754-2	Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity
BS EN 60811-100	Electric and optical fibre cables. Test methods for non-metallic materials - General
BS EN 60811-1-1	Insulating and sheathing materials of electric and optical cables - Common test methods - Part 1-1: General application - Measurement of thickness and overall dimensions - Tests for determining the mechanical properties
BS EN 60811-1-2	Insulating and sheathing materials of electric cables - Common test methods - Part 1-2: General application - Thermal ageing methods
BS EN 60811-1-3	Insulating and Sheathing Materials of Electric Cables - Common Test Methods - Part 1-3: General Application - Methods for Determining the Density - Water Absorption Tests - Shrinkage Test
BS EN 60811-1-4	Insulating and sheathing materials of electric and optical cables - Common test methods - Part 1-4: General application - Tests at low temperature
BS EN 60811-2-1	Insulating and sheathing materials of electric and optical cables - Common test methods - Part 2-1: Methods specific to elastomeric compounds - Ozone resistance, hot set and mineral oil immersion tests
BS EN 60811-3-1	Insulating and sheathing materials of electric and optical cables - Common test methods - Part 3-1: Methods specific to PVC compounds - Pressure test at high temperature - Tests for resistance to cracking

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BS EN 60811-3-2	Insulating and sheathing materials of electric and optical cables - Common test methods - Part 3-2: Methods specific to PVC compounds - Loss of mass test - Thermal stability test
BS EN 60811-201	Electric and optical fibre cables. Test methods for non-metallic materials - General tests. Measurement of insulation thickness
BS EN 60811-401	Electric and optical fibre cables. Test methods for non-metallic materials - Miscellaneous tests. Thermal ageing methods. Ageing in an air oven
BS EN 60811-402	Electric and optical fibre cables. Test methods for non-metallic materials - Miscellaneous tests. Water absorption tests
BS EN 60811-403	Electric and optical fibre cables. Test methods for non-metallic materials - Miscellaneous tests. Ozone resistance test on cross-linked compounds
BS EN 60811-404	Electric and optical fibre cables. Test methods for non-metallic materials - Miscellaneous tests. Mineral oil immersion tests for sheaths
BS EN 60811-405	Electric and optical fibre cables. Test methods for non-metallic materials - Miscellaneous tests. Thermal stability test for PVC insulations and PVC sheaths
BS EN 60811-409	Electric and optical fibre cables. Test methods for non-metallic materials - Miscellaneous tests. Loss of mass test for thermoplastic insulations and sheaths
BS EN 60811-501	Electric and optical fibre cables - Test methods for non-metallic materials - Part 501: Mechanical tests - Tests for determining the mechanical properties of insulating and sheathing compounds
BS EN 60811-502	Electric and optical fibre cables. Test methods for non-metallic materials - Mechanical tests. Shrinkage test for insulations
BS EN 60811-503	Electric and optical fibre cables. Test methods for non-metallic materials - Mechanical tests. Shrinkage test for sheaths
BS EN 60811-504	Electric and optical fibre cables. Test methods for non-metallic materials - Mechanical tests. Bending tests at low temperature for insulation and sheaths
BS EN 60811-505	Electric and optical fibre cables. Test methods for non-metallic materials - Mechanical tests. Elongation at low temperature for insulations and sheaths
BS EN 60811-506	Electric and optical fibre cables. Test methods for non-metallic materials - Mechanical tests. Impact test at low temperature for insulations and sheaths
BS EN 60811-507	Electric and optical fibre cables. Test methods for non-metallic materials - Mechanical tests. Hot set test for cross-linked materials
BS EN 60811-606	Electric and optical fibre cables. Test methods for non-metallic materials - Physical tests. Methods for determining the density
BS EN 61034-2	Measurement of smoke density of cables burning under defined conditions - Part 2: Test procedure and requirements
BS EN 62230	Electric cables - Spark-test method

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BS EN IEC 60332-3-24	Tests on electric and optical fibre cables under fire conditions - Test for vertical flame spread of vertically-mounted bunched wires or cables. Category C
BS EN IEC 60332-3-25	Tests on electric and optical fibre cables under fire conditions - Test for vertical flame spread of vertically-mounted bunched wires or cables. Category D
BS EN ISO 1716	Reaction to fire tests for products. Determination of the gross heat of combustion (calorific value)
EN 45545-2	Railway applications - Fire protection on railway vehicles - Part 2: Requirements for fire behavior of materials and components
EN 50200	Method of test for resistance to fire of unprotected small cables for use in emergency circuits
EN 50264-3-2	Railway applications - Railway rolling stock power and control cables having special fire performance -- Part 3-2: Cables with crosslinked elastomeric insulation with reduced dimensions - Multicore cables
EN 50382-2	Railway applications - Railway rolling stock high temperature power cables having special fire performance -- Part 2: Single core silicone rubber insulated cables for 120 °C or 150 °C
EN 50575	Power, control and communication cables - Cables for general applications in construction works subject to reaction to fire requirements
EN 50618	Electric cables for photovoltaic systems
IEC 60092-350	Electrical installations in ships - Part 350: General construction and test methods of power, control and instrumentation cables for shipboard and offshore applications Exclusion <ol style="list-style-type: none"> 1. Partial Discharge Test 2. Bending Test 3. Tan Measurement 4. Heat cycle test Impulse
IEC 60092-360	Electrical installations in ships - Part 360: Insulating and sheathing materials for shipboard and offshore units, power, control, instrumentation and telecommunication cables.
IEC 60092-376	Electrical Installation in ships – Part 376 : Cables for control and instrumentation circuits 150/250 V (300V)
IEC 60227-2	Amendment 1 - Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 2: Test methods
IEC 60245-2	Amendment 2 - Rubber insulated cables - Rated voltages up to and including 450/750 V - Part 2: Test methods
IEC 60684-2	Flexible insulating sleeving - Part 2: Methods of test

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IEC 60754-1	Test on gases evolved during combustion of materials from cables - Part 1: Determination of the halogen acid gas content
IEC 60754-2	Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity
IEC 60811-100	Electric and optical fibre cables - Test methods for non-metallic materials - Part 100: General
IEC 60811-401	Electric and optical fibre cables - Test methods for non-metallic materials - Part 401: Miscellaneous tests - Thermal ageing methods - Ageing in an air oven
IEC 60811-403	Electric and optical fibre cables - Test methods for non-metallic materials - Part 403: Miscellaneous tests - Ozone resistance test on cross-linked compounds
IEC 60811-404	Electric and optical fibre cables - Test methods for non-metallic materials - Part 404: Miscellaneous tests - Mineral oil immersion tests for sheaths
IEC 60811-409	Electric and optical fibre cables - Test methods for non-metallic materials - Part 409: Miscellaneous tests - Loss of mass test for thermoplastic insulations and sheaths
IEC 60811-501	Electric and optical fibre cables - Test methods for non-metallic materials - Part 501: Mechanical tests - Tests for determining the mechanical properties of insulating and sheathing compounds
IEC 60811-504	Electric and optical fibre cables - Test methods for non-metallic materials - Part 504: Mechanical tests - Bending tests at low temperature for insulation and sheaths
IEC 60811-505	Electric and optical fibre cables - Test methods for non-metallic materials - Part 505: Mechanical tests - Elongation at low temperature for insulations and sheaths
IEC 60811-507	Electric and optical fibre cables - Test methods for non-metallic materials - Part 507: Mechanical tests - Hot set test for cross-linked materials
IEC 60811-508	Electric and optical fibre cables - Test methods for non-metallic materials - Part 508: Mechanical tests - Pressure test at high temperature for insulation and sheaths
IEC 60811-509	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)
IEC 61034-2	Measurement of smoke density of cables burning under defined conditions - Part 1: Test apparatus
IEC 62821-1	Electric cables - Halogen-free, low smoke, thermoplastic insulated and sheathed cables of rated voltages up to and including 450/750 V - Part 1: General requirements
IEC 62893-1	Charging cables for electric vehicles for rated voltages up to and including 0,6/1 kV - Part 1: General requirements

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IEC 62893-2	Charging cables for electric vehicles for rated voltages up to and including 0,6/1 kV - Part 2: Test methods
IEC 62893-4-2	Charging cables for electric vehicles of rated voltages up to and including 0,6/1 kV - Part 4-2: Cables for DC charging according to mode 4 of IEC 61851-1 - Cables intended to be used with a thermal management system
IS 694	Polyvinyl chloride insulated unsheathed and sheathed cables/cords with rigid and flexible conductor for rated voltages up to and including 450/750 v (Fourth Revision)
IS 7098 (Part 2)	Crosslinked polyethylene insulated thermoplastic sheathed cables - Specification: Part 2 for working voltages from 3.3 kV up to and including 33 kV (Second Revision) Exclusion <ol style="list-style-type: none"> 1. Partial discharge test 2. Dielectric power factor test Impulse withstand test
IS 5831	Specification for PVC insulation and sheath of electric cables
IS 7098 (Part 1)	Crosslinked polyethylene insulated pvc sheathed cables: Part 1 for working voltages up to and including 1100 volts (First Revision)
IS 10810(Part 1)	Methods of test for cables: Part 1 Annealing test for wires used as conductors
IS 10810 (Part 2)	Methods of test for cables: Part 2 Tensile test for aluminium wires
IS 10810 (Part 3)	Methods of test for cables: Part 3 Wrapping test - For aluminium wires
IS 10810 (Part 4)	Methods of test for cables: Part 4 Persulphate test of conductor
IS 10810 (Part 5)	Methods of test for cables: Part 5 Conductor resistance test
IS 10810 (Part 6)	Methods of test for cables: Part 6 Thickness of thermoplastic and elastomeric insulation and sheath
IS 10810 (Part 7)	Methods of test for cables: Part 7 Tensile strength and elongation at break of thermoplastic and elastomeric insulation and sheath
IS 10810 (Part 10)	Methods of test for cables: Part 10 Loss of mass test
IS 10810 (Part 11)	Methods of test for cables: Part 11 Thermal ageing in air
IS 10810 (Part 12)	Methods of test for cables: Part 12 Shrinkage test
IS 10810 (Part 14)	Methods of test for cables: Part 14 Heat shock test
IS 10810 (Part 15)	Methods of test for cables: Part 15 Hot deformation test
IS 10810 (Part 20)	Methods of test for cables: Part 20 Cold bend test
IS 10810 (Part 21)	Methods of test for cables: Part 21 Cold impact test

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IS 10810 (Part 30)	Methods of test for cables: Part 30 Hot set test
IS 10810 (Part 33)	Methods of test for cables: Part 33 Water absorption test (Gravimetric)
IS 10810 (Part 34)	Methods of test for cables: Part 34 Measurement of thickness of metallic sheath
IS 10810 (Part 36)	Methods of test for cables: Part 36 Dimensions of armouring materia
IS 10810 (Part 37)	Methods of test for cables: Part 37 Tensile strength and elongation at break of armouring materials
IS 10810 (Part 38)	Methods of test for cables: Part 38 Torsion test on galvanized steel wires for armouring
IS 10810 (Part 39)	Methods of test for cables: Part 39 Winding test on galvanized steel strips for armouring
IS 10810 (Part 40)	Methods of test for cables: Part 40 Uniformity of zinc coating on steel armour
IS 10810 (Part 41)	Methods of test for cables: Part 41 Mass of zinc coating on steel armour
IS 10810 (Part 42)	Methods of test - For cables: Part 42 Resistivity test of armour wires and strips and conductance test of armour (Wires strips)
IS 10810 (Part 43)	Methods of test for cables: Part 43 Insulation resistance
IS 10810 (Part 44)	Methods of test for cables: Part 44 Spark test
IS 10810 (Part 45)	Methods of test for cables: Part 45 High voltage test
IS 10810 (Part 49)	Methods of test for cables: Part 49 Heating cycle test
IS 10810 (Part 53)	Methods of test for cables: Part 53 Flammability test
IS 10810 (Part 58)	Method of tests for cables: Part 58 Oxygen index test
IS 10810 (Part 59)	Method of tests for cables: Part 59 Determination of the amount of halogen acid gas evolved during combustion of polymeric materials taken from cables
IS 10810 (Part 60)	Methods of test for cables: Part 60 Thermal stability of PVC insulation and sheath
IS 10810 (Part 61)	Methods of test for cables: Part 61 Flame retardant test
IS 10810 (Part 62)	Method of tests for cables: Part 62 Flame retardance test for bunched cables
IS 10810 (Part 63)	Methods of test for cables: Part 63 Measurement of Smoke density of electric cables under fire conditions
IS 10810 (Part 64)	Methods of test for cables: Part 64 measurement of temperature index
IS 17048	Halogen free flame retardant (HFFR) cables for working voltages up to and including 1 100 Volts
ISO 48-2	Rubber, vulcanized or thermoplastic Determination of hardness Part 2: Hardness between 10 IRHD and 100 IRHD

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ISO 48-4	Rubber, vulcanized or thermoplastic Determination of hardness Part 4: Indentation hardness by durometer method (Shore hardness)
ISO 1402	Rubber and plastics hoses and hose assemblies Hydrostatic testing
ISO 6722-1	Road vehicles 60 V and 600 V single-core cables Part 1: Dimensions, test methods and requirements for copper conductor cables
ISO 19642-2	Road vehicles Automotive cables Part 2: Test methods
ISO 19642-5	Automotive cables Part 5: Dimensions and requirements for 600 V a.c. or 900 V d.c. and 1 000 V a.c. or 1 500 V d.c. single core copper conductor cables
ISO 19642-9	Road vehicles Automotive cables Part 9: Dimensions and requirements for 600 V a.c. or 900 V d.c. and 1 000 V a.c. or 1 500 V d.c. round, sheathed, screened or unscreened multi or single core copper conductor cables