

Laboratory Sicame India Connectors Pvt. Ltd.-SITEC, S.No. 473/1 (Part 1), # 96, Sirukundram Village, Chengalpet Taluk, Dist. Kanchipuram, Tamil Nadu

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-5852

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Validity 08.02.2017 to 07.02.2019

Last Amended on 05.03.2018

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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ELECTRICAL TESTING

I.	TRANSMISSION LINE EQUIPMENT AND ACCESSORIES			
1.	Metal fittings (Conductor earth wire accessories for overhead power lines) Bolted Type Compression clamps Suspension clamp	Electrical resistance test as per tension clamp	IS 2486 (Part 1), Cl.12.1.1	100mΩ to 100Ω
		Heating Cycling	IS 2486 (Part 1), Cl.12.1.1	Ambient Temperature to 200°C Upto 1200 A
2.	Electrical power clamp & connector (Equipment terminal connectors - Palm Connector, T-Connector, CT/PT Connector) Expansion Connector & Junction connector Parallel Groove Clamp	Electrical resistance	IS 5561, Cl.11	100mΩ to 100Ω
		Temperature rise	IS 5561, Cl.12	Ambient Temperature to 200°C Upto 1200 A
3.	Conductor and Earth wire accessories for overhead line products	Electrical resistance (for Armor Rod)	IS 2121 (Part 1), Cl.7.5 IS 2121 (Part 2), Cl.6.5	100mΩ to 100Ω

Nand Kumar
Convenor

N. Venkateswaran
Program Director

Laboratory

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	(Preformed Armor rod, Mid span compression joints, Repair sleeve, Earth wire fittings/accessories, Suspension clamp, Tension clamp suitable for earth wire conductor)	Heating Cycle	IS 2121 (Part 2), Cl.6.6	Ambient Temperature to 200°C Upto 1200 A
4.	Insulation piercing connector of (Class B)	Electrical Ageing	NFC 33 020:2013 Cl.6.8 EN 50483-5 (Excluding Optional Immersion test) NFC 33 004 : 1998	Ambient Temperature - 200°C 100mΩ to 100Ω Upto 1200A
		Dielectric Voltage	NFC 33 020:2013 Cl. 6.4	0.1kV to 30kV 0.1mA to 200mA
		Water tightness	NFC 33 020:2013 Cl. 6.4	0.1 kV to 30 kV 0.1mA to 200mA
5.	Distribution box	Temperature rise	IS 8623 (Part 1), Cl.8.2.1	Ambient Temperature to 200°C Upto 1200A
		Ingress Protection 2X	IS/IEC 60529	Upto 50V
6.	Anchoring Clamp	Dielectric Voltage test on anchoring clamps	NFC 33-041 - 2013 Cl.7.4.1	0.1kV to 30kV 0.1mA to 200 mA
7.	Suspension Clamp	Voltage Test on suspension clamps	NFC 33-040 - 2013 Cl.7.4	0.1kV to 30kV 0.1mA to 200mA
8.	Piranha Connector	Current Cycle	ANSI 119.4, Cl.3.2	Ambient Temperature to 200°C 100mΩ to 100Ω Upto 1200A

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MECHANICAL TESTING

I. PERFORMANCE TEST				
1.	Aluminium Brackets Dead end Clamps	Tensile Proof load	NFC 33-040 NFC 33-041 Cl. 2.3.1 & Cl.2.3.2	Qualitative (0.1kN to 200 kN)
2.	Thermo plastic Suspension Clamp	Tensile Proof load	NFC 33-040 Cl.2.3.2.2	Qualitative (0.1kN to 200 kN)
3.	Insulation Piercing Connector	Tightening the mechanical strength of main core & tap cores	NFC 33-020 Cl. 2.3.1, 2.3.2 & Cl. 2.3.3	Qualitative (0.1kN to 200 kN) Torque: Upto 200 Nm
4.	Mid Span Joint	Tensile Proof load	NFC 33-021, Cl.2.3.3	Qualitative (0.1kN to 200 kN)
5.	Aluminium Suspension Clamp	-Visual Examination & Dimensional	IS 2486 (Part 1), Cl. 5, Cl. 8 IEC 61284, Cl. 7, Cl. 8	0.5 mm to 250mm
		Tensile Breaking Load	IS 2486 (Part 1), Cl.11.2.1 IEC 61284, Cl.11.4.1, Method B	0.1kN to 200 kN
		Slip Strength	IS 2486 (Part 1), Cl.11.1 IEC 61284, Cl. 11.4	Qualitative (0.1kN to 50 kN)
6.	Aluminium Dead end clamp - Bolted and Compression type	Dimensional	IS 2486 (Part 1), Cl.8 IEC 61284, Cl.8	0.5mm to 250 mm
		Slip Strength	IS 2486 (Part 1), Cl.11.1 IEC 61284, Cl.11.5.1	Qualitative (0.1kN to 200 kN)
7.	Mid span Compression joints, Repair Sleeve, Earth Wire fittings Clamps & Accessories	Failing Load	IS 2121 (Part II), Cl.6.4	Qualitative (0.1kN to 200 kN)

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8.	Preformed Armour rod	Visual Examination & Dimensional	IS 2121 (Part 1) Cl. 7.2, Cl 7.3	0.5mm to 250mm
		Tensile Proof Load	IS 2121 (Part 1), Cl.7.4.1	0.1kN to 200 kN
		Slip Strength	IS 2121 (Part 1), Cl. 7.7	Load 0.1kN to 50 kN
		Bend	IS 2121 (Part 1), Cl.7.10	Qualitative
		Resilience	IS 2121 (Part 1), Cl.7.11	Qualitative
9.	Steel Parts of Insulator fittings	Zinc Coating thickness	ISO 1461	20µm to 2000µm
10.	Dead End & Suspension Clamp, Universal Pole Bracket & Stainless Steel Straps and Buckle	Tensile Proof load	GRNo.TEC/GR/TX/OAF-001/03/MAR-17 Cl 4.3.4, 4.3.5, 4.3.6 & 4.3.7	0.1kN to 200 kN Elongation for stainless Steel strap: Upto 60%
II.	NOISE & VIBRATION			
1.	Vibration Damper	Verification of Visual Examination	IS 9708, Cl. 7.2 IEC 61897, Cl. 7.1	Qualitative
		Verification of Dimension	IS 9708, Cl. 7.3 IEC 61897, Cl. 7.2	0.01mm to 250 mm
		Clamp Bolt Torque	IS 9708, Cl. 7.10 IEC 61897, Cl. 7.7	1 Nm to 200 Nm
		Resonance Frequency	IS 9708, Cl. 7.4	5 Hz to 48 Hz
		Mass Pull of Test	IS 9708, Cl. 7.6 IEC 61897, Cl. 7.8	0.1 kN to 200 kN
		Clamp Slip Test	IS 9708, Cl. 3.17 IEC 61897, Cl. 7.5	0.1 kN to 200 kN
		Clamp to Messenger cable pull test	IEC 61897, Cl. 7.9	0.1 kN to 200 kN
2.	Spacer Damper	Compression tensile	IEC 61854, Cl.7.5.4	0.1 kN to 180 kN
		Clamp Slip	IEC 61854, Cl.7.5.1.1 (b) IS 10162, Cl.5.5	0.1 kN to 180 kN

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		Clamp Bolt Torque	IEC 61854, Cl.7.5.3 IS10162, Cl.5.7	1 Nm to 200 Nm
		Movement -Longitudinal Movement -Vertical Movement -Torsional Movement	IS 10162, Cl.5.4	(-) 50 mm to 50 mm (-) 50 mm to 50 mm (-) 5 ° to 5 °
		Assembly Torque	IS 10162, Cl 5.8	1 Nm to 200 Nm
		Visual Examination	IEC 61854, Cl 7.1 IS 10162, Cl.5.2	Qualitative
		Dimension Verification	IEC 61854, Cl.7.2 IS 10162, Cl.5.3	Upto 1000 mm
		Characterization of the elastic and damping properties	IEC 61854, Cl.7.5.5 (A)	Upto 5 kN
		Sub span oscillation	IEC 61854, Cl.7.5.7.2	Upto 100 mm Upto 5 kN
III.	MECHANICAL PROPERTIES OF METALS			
1.	Ferrous and Non-Ferrous Metals & Alloys	Brinell Hardness	IS 1500, Cl.7	50 HBW to 150 HBW HBW 2.5/62.5 HBW 2.5/ 187.5 HBW 2.5/250
		Vickers Hardness	IS 1501 (Part 1), Cl.7	50 HV 5 to 200 HV 5 100 HV 10 to 250 HV 10 150 HV 30 to 600 HV 30