

Laboratory Sterlite Power Transmission Limited (Optical Power Ground Wire Laboratory), Survey No. 209, Phase-2, Piparia Industrial Estate, Silvassa, UT of Dadra Nagar Haveli.

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7037

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Validity 16.03.2018 to 15.03.2020

Last Amended on --

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.	CABLES AND ACCESSORIES			
1.	Optical Ground Wire Cable	DC Resistance	IEEE 1138, Cl. 6.4.1.5	Upto 2 Ω / km
2.	Aluminium Clad Steel Wires & Aluminium Alloy Wires (ACS / AA Wires)	Resistivity	IEC 61232 IEC 60104	Upto 85 m Ω m
		Tensile and Elongation on ACS wires	IEC 61232	Upto 50 kN Upto 10%
		Tensile and Elongation on Aluminum Alloy Wires	IEC 61232	Up to 50 kN Up to 10%
		Twist (on ACS Wires)	IEC 61232	2.3 mm to 4.5 mm
		Bending (on AA Wires)	IEC 60104	2.3 mm to 4.5 mm

Nand Kumar
Convenor

N. Venkateswaran
Program Director

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ELECTRONICS TESTING

I.	OPTICAL GROUND WIRE CABLE			
1.	Optical Ground Wire Cable	Water Ingress	IEEE 1138, Cl. 6.4.3.5	Qualitative (Water head height : 1 m Cable diameter : 10mm to 25mm)
		Seepage of flooding/ filling compound	IEEE 1138, Cl. 6.4.3.6	Upto 50g
		Aeolian Vibration	IEEE 1138, Cl. 6.4.3.1	Change in Attenuation: Upto 0.5 dB/fiber
		Galloping	IEEE 1138, Cl. 6.4.3.2	Change in Attenuation: Upto 0.5 dB/fiber
		Bend	IEEE 1138, Cl. 6.4.2.3	Change in Attenuation: Upto 0.5 dB/fiber
		Sheave	IEEE 1138, Cl. 6.4.2.1	Change in Attenuation: Upto 0.5 dB/fiber Ovality up to 20 %
		Crush	IEEE 1138, Cl. 6.4.2.2	Change in Attenuation: Upto 0.5 dB/fiber km Ovality up to 20%
		Impact	IEC 60794-1-2 Method-4	Change in Attenuation: Upto 0.2 dB/fiber
		Twist	IEEE 1138, Cl. 6.4.2.4	Change in Attenuation: Upto 0.2 dB/fiber km
		Creep	IEEE 1138, Cl. 6.4.1.1	10 mm to 25 mm
		Stress Strain	IEEE 1138, Cl. 6.4.1.2	Modulus of elasticity Upto 200 kN/mm ²
		Ultimate Tensile Strength (on Complete OPGW)	IEEE 1138, Cl. 6.4.1.4	Upto 200 kN Change in Attenuation: Up to 0.1 dB/fiber km

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		Diameter of cable, sus tube, ACS Wire, Al Alloy	IEEE 1138, Cl. 6.5.1 (C)	Upto 25 mm
		Attenuation For Single mode fiber At 1310nm At 1550nm (Point discontinuity)	IEC 60793-1-40	Up to 0.40 dB/km @ 1310 nm Up to 0.25 dB/km @ 1550 nm
		Lay Ratio and Lay Direction	IEEE 1138, Cl. 6.5.3.1	Lay ratio up to 20 (Wire diameter upto 25 mm)

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