

Laboratory	Electronics Test and Development Centre, B-108, Phase VIII, Industrial Area, Mohali, Punjab		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Electrical Testing	Issue Date	19.10.2014
Certificate Number	T-0079	Valid Until	18.10.2016
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I.	CABLES AND ACCESSORIES			
1.	PVC Insulated Cables for Working Voltage upto and including 1100 V	Annealing Test	IS 10810 (Part 1): 1984	Diameter : (0.01 to 200) mm Elongation: (0.01 to 300) mm
		Tensile Test	IS 10810 (Part 2): 1984	500 N, 1000 N, 2500 N
		Wrapping Test	IS 10810 (Part 3): 1984	Qualitative
		Conductor Resistance	IS 10810 (Part 5): 1984	Qualitative
		Thickness of Insulation and Sheath	IS 10810 (Part 6): 1984	0.02 $\mu\Omega$ to 1.1 Ω
		Tensile Strength and Elongation at Breakage of Sheath	IS 10810 (Part 7): 1984	500 N,1000 N, 2500 N Elongation: (0.01 to 300) mm
		Loss of Mass	IS 10810 (Part 10): 1984	Temp.: ambient to 160°C 0.01 mg to 100 g: 0.01 mg
		Hot Deformation Test	IS 10810 (Part 15): 1984	Temperature: Upto 180 °C
		Heat Shock Test	IS 10810 (Part 14): 1984	Temperature: Upto 180 °C
	Insulation Resistance Test	IS 10810 (Part 43): 1984	Temperature: Upto 180 °C 100 k Ω to 3 T Ω	

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	PVC Insulated Cables for Working Voltage upto and including 1100V	High Voltage Test (Water Immersion)	IS 10810 (Part 45): 1984	0 to 10 kV 1-5-10-25-50 mA Ambient to 100 °C
		High Voltage Test (Room Temperature)	IS 10810 (Part 45): 1984	2.5-5-10 kV 1 mA to 50 mA
		Thermal Stability Test	IS 5831: 1984 (Appendix-B)	Ambient to 250 °C
		Flammability Test	IS 10810 (Part 53): 1984	100 ms to 9.99 s
		Shrinkage Test	IS 10810 (Part 12): 1984	Ambient to 180 °C 0.01 mm to 200 mm
		Cold Bend Test	IS 10810 (Part 20): 1984	Upto (-) 40 °C
		Cold Impact Test	IS 10810 (Part 21): 1984	Upto(-) 40 °C
		Additional Ageing Test	IS 694 (CI 16.6): 1990	Upto 180 °C
2.	PVC Insulated (Heavy Duty) Electric Cable for Working Voltage upto and including 1100V	Annealing Test	IS 10810 (Part 1): 1984	Dia : (0.01 to 200) mm Elong.: (0.01 to 300) mm
		Tensile Test	IS 10810 (Part 2): 1984	500 N, 1000 N, 2500 N
		Wrapping Test	IS 10810 (Part 3): 1984	Qualitative
		Conductor Resistance	IS 10810 (Part 5): 1984	0.02 μΩ to 1.1 Ω
		Thickness of Insulation and Sheath	IS 10810 (Part 6): 1984	0.01 mm to 200 mm
		Tensile Strength and Elongation at Breakage of Sheath	IS 10810 (Part 7): 1984	500 N, 1000 N, 2500 N Elongation: 0.01 mm to 300 mm

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	PVC Insulated (Heavy Duty) Electric Cable for Working Voltage upto and including 1100V	Loss of Mass	IS 10810 (Part 10): 1984	Temperature: Ambient to 160°C 0.01 mg to 100 g
		Hot Deformation Test	IS 10810 (Part 15): 1984	Temperature: upto 180°C
		Heat Shock Test	IS 10810 (Part 14): 1984	Temperature: Upto 180 °C
		Insulation Resistance Test	IS 10810 (Part 43): 1984	100 kΩ to 3 TΩ
		High Voltage Test (Water Immersion)	IS 10810 (Part 45): 1984	0 to 10 kV 1-5-10-25-50mA Ambient to 100°C
		High Voltage Test (Room Temperature)	IS 10810 (Part 45): 1984	2.5-5-10 kV/50V 1 mA to 50 mA
		Thermal Stability Test	IS 5831:1984 (Appedix-B)	Ambient to 250 °C
		Flammability Test	IS 10810 (Part 53): 1984	100 ms to 9.99 s
		Shrinkage Test	IS 10810 (Part 12): 1984	Ambient to 180 °C (0.01 to 200) mm
		Cold Bend Test	IS 10810 (Part 20): 1984	Upto: (-) 40 °C
		Cold Impact Test	IS 10810 (Part 21): 1984	Upto: (-) 40 °C
		Dimension of Armour	IS 10810 (Part 36): 1984	Diameter 0.01mm to 200 mm Curvature: 7.5 mm to 12 mm

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	PVC Insulated (Heavy Duty) Electric Cable for Working Voltage upto and including 1100V	Tensile Strength and Elongation for armour	IS 10810 (Part 37): 1984	500 N, 1000 N, 2500 N Elongation: (0.01 to 300) mm
		Winding Test for Galvanized Steel Strips for Armoring	IS 10810 (Part 39): 1984	Qualitative
		Uniformity of Zinc Coating	IS 10810 (Part 40): 1984	Qualitative
		Mass of Zinc Coating	IS 10810 (Part41): 1984	0.01 mg to 10 g
		Resistance, Conductance of Armour	IS 10810 (Part 42): 1984	0.02 $\mu\Omega$ to 1.1 Ω

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