Laboratory	**Delhi Test House, Plot No. 50, Phase- IV, Sector- 57, HSIDC, Kundli, Sonipat, Haryana**		
Accreditation Standard	**ISO/IEC 17025: 2005**		
Discipline	**Electrical Testing**	**Issue Date**	**07.06.2014**
Certificate Number	**T-2257**	**Valid Until**	**23.05.2016**
Last Amended on	**23.07.2014**	**Page**	**1 of 16**

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I. WIRING ACCESSORIES				
1.	**Electric Ceiling Type Fans and Regulator IS: 374-1979**	Air delivery	Cl.-10.3 of IS: 374-1979	0 to 150/300/600W, LC: 1/2/4W 0 to 150/300/600V, LC: 1/2/4V 0.4 to 30 m/ s LC: 0.1m/ s
		Temperature rise test	Cl.-10.4 of IS: 374-1979	0 to 150/300/600W, LC: 1/2/4W Up to 100°C LC: 1°C 0.001Ω to 11 MΩ, LC: 0.001 Ω
		Leakage current	Cl.-10.5 of IS: 374-1979	0 to 20 mA, LC: 0.01mA 0 to 1500W, LC: 1W 0 to 5000W, LC: 1W
		High Voltage test	Cl.-10.6 of IS: 374-1979	0 to 5 kV, LC: 0.1 kV 0 to 250 mA, LC: 5 mA 0 to 60 min, LC: 0.01/1 s
		Insulation Resistance	Cl.-10.7 of IS: 374-1979	2 to 100 MΩ, LC: 0.5 MΩ 500V DC 0 to 60 min, LC: 0.01/1s

		Starting	Cl.-10.8 of IS: 374-1979	0 to 300V, LC: 1V 0 to 150/300/600W, LC: 1/2/4W 0 to 1A to 5A, LC: 0.02 A, 0.04 A
		Fan speed & Input	Cl.-10.9 of IS: 374-1979	2.5 to 99999 RPM LC: 0.1/1RPM 0 to 150/300/600W, LC: 1/2/4W 0 to 150/300/600V, LC: 1/2/4V
		Earthing connection	Cl.-10.10 of IS: 374-1979	0 to 5V, LC: 0.1V 0 to 50A , LC: 1A
		Protection against electric shock (for regulators)	Cl.-10.11 of IS: 374-1979	4.5 V to 60V, LC: 0.1V 0 to 50A, LC: 0.1A
		Moisture resistance (for regulators only)	Cl.-10.12 of IS: 374-1979	50% to 99% RH LC: 1% RH -20ºC to +50ºC, LC: 0.1 ºC
		Mechanical strength (for regulators only)	Cl.-10.13 of IS: 374-1979	0.5 J
		Suspension system (for regulators only)	Cl.-10.14 of IS: 374-1979	0 to 2.0 ton, LC: 0.2 ton 0 to 7 kg.m, LC: 0.2 kg.m
		Creepage distance and clearances	Cl.-10.15 of IS: 374-1979	0 to 150 mm LC: 0.01 mm 0.05 mm to 1.00 mm
		Mechanical Endurance (for regulators only)	Cl.-10.16 of IS: 374-1979	0 to 300V, LC: 2V counter meter 0 to 9999, LC: 1 0 to 1A, LC: 0.1A
2.	**Propeller Type AC Ventilating Fan IS: 2312-1967 (Size Up to 600 mm)**	Starting Input Speed	Cl.- 10.1 of IS: 2312-1967	0 to 699V, LC: 0.1V 0 to 1250W, LC:1W 0 to 30 A, 0.01A
		Air Delivery	Cl.- 14.2 of IS: 2312-1967	Duct.: 0.2 to 30 m/S, LC: 0.1 m/s
		Temperature rise test	Cl.- 14.3 of IS: 2312-1967	Upto 200°C LC: 0.1°C 0 to 699 V, LC: 0.1V 0 to 1250 W, LC: 1W
		Power factor	Cl.- 14.6 of IS: 2312-1967	0.1 pf to 1 pf LC: 0.1 pf
		AC Leakage test	Cl.- 14.7 of IS: 2312-1967	0 to 20 mA, LC: 0.01mA 0 to 1500W, LC: 1W

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
				0 to 5000W, LC: 1W
		High voltage test	Cl.- 14.8 of IS: 2312-1967	0 to 5 kV, LC: 0.1kV 0 to 60 Min, LC: 0.01/1s
		Insulation resistance test	Cl.- 14.9 of IS: 2312-1967	2 to 100 MΩ, LC: 0.5 MΩ 500V DC, 0 to 60 Min, LC: 0.01/1s
		Earthing continuity	Cl.- 14.10 of IS: 2312-1967	0 to 30A, LC: 1A 0 to 5V, LC: 0.1V
		Electrical input test Input Current Speed	Cl.- 14.11 of IS: 2312-1967	0 to 699V, LC0.1V 0 to 1250W, LC 1W 0 to 30 A, 0.01A 2.5 to 99999 RPM LC: 0.1/1 RPM
		Speed	Cl.- 14.12 of IS: 2312-1967	2.5 to 99999 RPM LC: 0.1/1 RPM 0 to 699V, LC: 0.1V
		Flash test	Cl.- 14.13 of IS: 2312-1967	0 to 5kV LC: 0.1kV
3.	**Electric Table Types Fans and**	Air delivery	Cl.-10.3 of IS: 555-1979	0 to 150/300/600W, LC: 1/2/4W

Regulator **IS: 555-1979**			0 to 150/300/600V, LC: 1/2/4V 0.4: 30 m / s LC: 0.1m / s
	Temperature rise	Cl.-10.4 of IS: 555-1979	0 to 150/300/600W, LC: 1/2/4W 0 to 110°C, LC: 1°C 0.001ohm to 11 MΩ, LC: 0.001 Ω
	Leakage current	Cl.-10.5 of IS: 555-1979	0 to 20 mA, LC: 0.01mA 0 to 1500W, LC: 1W 0 to 5000W, LC: 1W
	High voltage test	Cl.-10.6 of IS: 555-1979	0 to 5kV, LC: 0.1 kV 0 to 60 Min, LC: 0.01/1s
	Insulation resistance test	Cl.-10.7.1 of IS: 555-1979	2 to 100 MΩ, LC: 0.5MΩ 500V DC 0 to 60 Min, LC: 0.01/1s
	Starting Input and Current	Cl.-10.8 of IS: 555-1979	0 to 150/300/600W, LC: 1/2/4W 0 to 150/300/600V, LC: 1/2/4V
	Fan speed and input	Cl.-10.9 of IS: 555-1979	2.5 to 99999 RPM LC: 0.1/1 RPM 0 to 150/300/600W, LC: 1/2/4W 0 to 150/300/600V, LC: 1/2/4V
	Earthing connections	Cl.-10.10 of IS: 555-1979	0 to 5 V, LC 0.1 V 0 to 50A, LC 1A
	Protection against electric shock	Cl.-10.11 of IS: 555-1979	Standard test finger 0 to 75 N 4.5V to 60V, LC: 0.01V
	Moisture resistance	Cl.-10.12 of IS: 555-1979	50% to 99%RH, LC: 1%RH -20°C to +50°C, LC: 0.1°C
	Cord grip	Cl.-10.14 of IS: 555-1979	0 to 100 N, 0 to 6 Nm, LC: 0.1 Nm 0 to 150 mm LC: 0.01 mm
	Creepage distance and clearances	Cl.-10.16 of IS: 555-1979	0 to 150 mm LC: 0.01 mm 0.05 mm to 1.00 mm

II. DOMESTIC ELECTRICAL APPLIANCES

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
1.	**Satisfactory Storage type Electric Water Heater IS: 2082-1993 IS: 302 (Part-2/ Sec.-21)-1992, Safety of house hold and similar Electrical Appliances**	Verification of the rated capacity	Cl.- 15 of IS: 2082(Part-1)-1993	6 l, 10 l, 15 l, 25 l, 35 l, 50 l
		Standing loss per 24 hours	Cl.- 16 of IS: 2082(Part-1)-1993	0 to 9999 kWh LC: 0.01 kWh -10ºC to 50 ºC, LC: 1 ºC
		Hot water output	Cl.- 17 of IS: 2082(Part-1)-1993	Up to 110°C LC: 1°C
		Reheating time	Cl.- 18 of IS: 2082(Part-1)-1993	0 to 110°C, LC: 1°C 0 to 15 Min, LC: 0.01 s
		Mixing factor	Cl.- 19 of IS: 2082(Part-1)-1993	0 to 110°C, LC: 1°C
		Deviation from dial calibration	Cl.- 20 of IS: 2082(Part-1)-1993	0 to 110°C, LC: 1°C
		Cyclic temperature variation (Different)	Cl.- 21 of IS: 2082(Part-1)-1993	0 to 110°C, LC: 1°C
		Finish	Cl.- 22 of IS: 2082(Part-1)-1993	Visual examination
		Endurance	Cl.- 23 of IS: 2082(Part-1)-1993	Visual examination
		Protection against electric shock	Cl.- 8 of IS: 302 (Part-1)-2008	4.5V to 60V, LC: 0.1 V
		Power input and current	Cl.-10 of IS: 302 (Part-1)- 2008	0 to 1500W, LC: 1W

		0 to 5000W, LC: 1W 0 to 10A, LC: 0.01A 0 to 30A, LC: 0.001A 0 to 500V, LC: 1V
Temperature rise test (Heating)	CL.-11 of IS: 302 (Part-1)- 2008	0 to 99°C, LC: 0.1°C 0 to 1000°C, LC: 1°C
Leakage current & Electrical strength at operating temperature a) Leakage current	CL.-13 of IS: 302 (Part-1)-2008	0 to 20 mA, LC: 0.01mA 0 to 1500W, LC: 1W 0 to 5000W, LC: 1W
b) Electric Strength	CL.-13 of IS: 302 (Part-1)-2008	0 to 5kV LC: 0.1 kV 0 to 60 Minutes, LC: 0.01/1sec
Moisture resistance	CL.-15 of IS: 302 (Part-1)-2008	Qualitative
Leakage current and electric strength a) Leakage current	CL.-16 of IS: 302 (Part-1)- 2008	0 to 20mA, LC0.01mA 0 to 1500W, LC 1W 0 to 5000W, LC 1W
b) Electric Strength		0 to 5kV LC: 0.1 kV 0 to 60 Minutes, LC: 0.01/1sec
Overload protection	CL.-17 of IS: 302 (Part-1)- 2008	0 to 500V, LC: 1V 0 to 5000W, LC: 1W
Abnormal Operation Temperature rise	CL.-19 of IS: 302 (Part-1)- 2008	0 to 500V, LC: 1V 0 to 1500W, LC: 1W 0 to 5000W, LC: 1W 0 to 5kV LC: 0.1 kV 0 to 60 Min, LC: 0.01/1s 0 to 99°C, LC: 0.1°C 0 to 1000°C, LC: 1°C
Stability and mechanic hazards	Cl.-20 of IS 302 (Part-1)- 2008	Qualitative
Mechanical strength	Cl.-21 of IS 302 (Part-1)- 2008	0.5 J
Construction	Cl.-22 of IS 302 (Part-1)- 2008	Qualitative

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Internal wiring	Cl.-23 of IS 302 (Part-1)- 2008	Qualitative
		Components	Cl.-24 of IS 302 (Part-1)- 2008	Qualitative
		Supply connection & external flexible cords	Cl.-25 of IS:302 (Part-1)-2008	Up to 100 N 0 to 6 Nm, LC: 0.01 Nm 0 to 150 mm, LC: 0.01mm
		Terminal for external conductor	Cl.-26 of IS:302 (Part-1)- 2008	0 to 6 Nm, LC:0.01 Nm
		Provision for Earthing	Cl.-27 of IS:302 (Part-1)- 2008	0 to 5V, LC: 0.1V 0 to 50A , LC: 1A
		Screw and connection	Cl.-28 of IS:302 (Part-1)- 2008	0 to 6 Nm, LC: 0.01Nm
		Creep age distance and clearance	Cl.-29 of IS:302 (Part-1)- 2008	0 to 150 mm LC: 0.01 mm 0.05 mm to 1.00 mm
		Resistance to heat and fire	Cl.-30 of IS:302 (Part-1)- 2008	0 to 400°C, LC: 1°C 0 to 1000°C, LC: 1°C 0 to 180 mm, LC: 0.0001 mm 20 N Load
		Resistance to rusting	Cl.-31 of IS:302 (Part-1)- 2008	Up to 400°C, LC:1°C
III. ROTATING ELECTRICAL MACHINES				
1.	**Single phase small**	Test for no load and full load	Cl.-12.5 of IS:996-2009	0 to 699V, LC: 0.1V

	AC and universal electric motors. IS: 996-2009 (Fan duty Motors)	current power input and speed and rated voltage and frequency		0 to 1250 W, LC: 1W 0 to 30 A, 0.01 A 2.5 to 99999 RPM LC: 0.1/1 RPM
		Momentary overload test	CL.-12.1.2of IS:996-2009	0 to 300V, LC: 2V 0 to 600W, LC: 1W 0 to 60 Min, LC: 0.01/1s
		Temperature rise test	CL.-12.2of IS:996-2009	0 to 110°C, LC: 1°C 0.001Ω to 20000Ω, LC: 0.001Ω
		Insulation resistance test	CL.-12.7 of IS:996-2009	2-100MΩ, LC: 0.5 MΩ, 500V DC 0 to 60 Minutes, LC: 0.01/1sec
		High voltage test	Cl.-13.1 of IS:996-2009	0 to 5kV, LC: 0.1kV 0 to 60 Minutes, LC: 0.01/1sec
		Moisture proof ness test	Cl.-13.2 of IS:996-2009	50 to 99% RH LC: 1% RH -20°C to +50°C, LC: 0.1°C
		Leakage current test	CL.-13.3 of IS:996-2009 IS:302 (Part-1)-2008	0 to 20mA, LC: 0.01mA 0 to 1500W, LC: 1W 0 to 5000W, LC: 1W
		Dimension	F-4 of Annexure – F IS:996-2009	0 to 150 mm, 0.01 mm
IV. LAMPS, LUMINARIES & ACCESSORIES				
1.	**Tubular fluorescent lamps for general lighting service (Requirements and tests) standard lamp data sheets 20 W & 40W only, 6500 k IS 2418 (P-1& P-2)-1977**	Visual examination and checking for marking	Cl.-6.3 of IS: 2418 (Part-1)-1977	Qualitative
		Torque test (Torsion test)	Cl.-6.4 of IS: 2418 (Part-1)-1977	0 to 10 Nm, LC 0.1Nm
		Insulation resistance test	Cl.-6.5 of IS: 2418 (Part-1)-1977	1 to $100x10^6$ MΩ LC: 0.5MΩ 0 to 1000V DC, LC: 1V DC
		Burning test	Cl.-6.6 of IS: 2418 (Part-1)-1977	Qualitative
		Starting characteristic test	Cl.-6.7 of IS: 2418 (Part-1)-1977	0 to 500V, LC 1V 0 to 20A, LC 0.1A
		Electrical luminous & colour characteristic	Cl.-6.8 of IS: 2418 (Part-1)-1977	0 to 20000 Lm, LC: 1Lm X: 0 to 1, LC: 0.001 Y: 0 to 1, LC: 0.001
		Life test	Cl.-6.9 of IS: 2418 (Part-1)-1977	0 to 10000 h LC: 0.1s Timer

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
2.	**Self ballasted lamps for general lighting service (Safety requirements & performance requirements) a) 5 W, 8 W, 14 W, 18W & 25 W, 230 V, 6500 K b) Upto 25 W, 230 V & 2700 K IS: 15111(P-1 & 2): 2002**	Marking	Cl.-6.1 of IS: 15111 (Part-1)-2002	Qualitative
		Interchangeability B-22, E-27	Cl.-6.7 of IS: 15111 (Part-1)-2002	Qualitative
		Protection against electric shock	Cl.-8 of IS: 15111 (Part-1)-2002	Standard test finger 4.5 V to 60V, 0.1 V
		Insulation resistance and electric strength after humidity treatment	Cl.-9 of IS: 15111 (Part-1)-2002	50% to 99%RH, LC: 0.1% Upto 99.9 ºC, LC: 0.1ºC
		a) Insulation resistance test		1 to 100 X 10^6 MΩ LC: 0.5 MΩ 0 to 1000 V DC, LC: 1V DC
		b) Electric Strength		0 to 5 kV, LC: 0.1 kV
		Mechanical test (Torsion Resistance)	Cl.-10.1 of IS: 15111 (Part-1)-2002	0 to 10 Nm, LC: 0.1 Nm
		Cap Temperature rise (chamber)	Cl.-11 of IS: 15111 (Part-1)-2002	0 to 199°C LC: 0.1°C
		Resistance to heat (Ball pressure test)	Cl.-12 of IS: 15111 (Part-1)-2002	0 to 250°C, LC 1°C 20 N Load 0 to 180 mm, LC: 0.0001 mm
		Resistance to flame and ignition	Cl.-13 of IS: 15111 (Part-1)-2002	Upto 1000°C, LC: 1°C,1 N Load

	Dimension	Cl.-6 of IS: 15111 (Part-2)-2002	0 to 150 mm, LC:0.01 mm
	Starting & run up	Cl.-8 of IS: 15111 (Part-2)-2002	0 to 1 hr, LC: 0.01sec 0 to 500 V, LC: 0.1V 0 to 20 A, LC: 0.1A
	Lamp Wattage	Cl.-9 of IS: 15111 (Part-2)-2002	Upto 200 W, LC: 0.01 W
	Luminous flux	Cl.-10 of IS: 15111 (Part-2)-2002	0 to 20000 Lm LC: 1 Lm 0 to 100%
	Colour	Cl.-11 of IS: 15111 (Part-2)-2002	x: 0 to 1, LC 0.001 y: 0 to 1, LC 0.001
	Lumen Maintains	Cl.-12 of IS: 15111 (Part-2)-2002	0 to 20000 Lm, LC: 1 Lm
	Life test (Bench)	Cl.-13 of IS: 15111 (Part-2)-2002	0 to 10000 hr 0 to 300V, LC: 1V 0 to 9999.9, LC: 0.1s
	Lamp Efficiency	Cl.-15 & 14 of IS: 15111 (Part-2)-2002	0 to 20000 Lm, LC: 1 Lm 0 to 100 Lm/W
	Harmonic	IS: 15111 (Part-2)-2002	0 to 100%, LC: 1% 0 to 500V, LC: 0.1V H. Order: Upto 39
	Power factor test	Cl.-16 of IS: 15111 (Part-2)-2002	0 to 1 Pf, LC: 0.1 pf

V. CABLES & WIRES

1.	**Aluminum Conductors for Overhead Transmission purpose Part 2- Aluminium conductors, galvanized steel reinforced IS:398(P-2)-1996**	Surface Condition Test	CL.13.9 of IS: 398(Part-2)-1996	0 to 223440 N, LC: 10 N 0 to 150 mm, LC: 0.01mm
		Ultimate Breaking Load on Standard Conductor	Cl. 13.10 of IS: 398(Part-2)-1996	0 to 223440 N , LC: 10N
		Stress-strain test	CL. 13.11 of IS: 398(Part-2)-1996	0 to 2234440 N , LC: 10 N
2.	**PVC Insulated cables for working voltage up to and including 1100 V IS:694-1990**	Annealing Test For copper conductor	IS:8130 - 1984 IS:10810 (Part-1)-1984	0 to 30 kN 0 to 100%
		Tensile Test (for Aluminium)	IS:8130 - 1984 IS:10810 (Part-2)-1984	0 to 30 kN
3.	**PVC Insulated (Heavy Duty) Electric cables up to 1100 V. IS:1554**	Wrapping Test (for Aluminium)	IS:8130 - 1984 IS:10810 (Part-3)-1984	Qualitative
		Conductor Resistance	IS:8130 - 1984 IS:10810 (Part-5)-1984	0.2 μΩ to 11 Ω 0 to 600 Ω/km

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	(Part-1)-1988			
4.	**Cross- linked Polyethylene Insulated Thermoplastic Sheathed cables up to1100 V IS:7098(P-1)-1988**	Test for overall dimensions and thickness of insulation and sheath	IS:10810 (Part-6)-1984	0 to 150 mm 0 to 25 mm
		Tensile Strength & Elongation at Break, of Insulation & sheath	IS:5831-1984 IS:10810 (Part-7)-1984	0 to 30 kN 0 to 100%
5.	**Aerial Bunched cables for working voltages up to & including 1100 V. IS:14255-1995**	Loss of mass test	IS:5831-1984 IS:10810 (Part-10)-1984	Amb-199.9°C 0 to 15 mg/cm^2
		Ageing in air oven	IS:5831-1984 IS:10810 (Part-11)-1984	Amb-199.9°C TS & Elongation Variation up to ± 50%
		Shrinkage Test	IS:5831-1984 IS:10810 (Part-12)-1984	Amb-400°C 0 to 20%
		Heat Shock Test	IS:5831-1984 IS:10810 (Part-14)-1984	Amb-400°C
6.	**PVC Insulated (Heavy Duty) Electric cables for working voltages from 3.3 kV up to**	Hot Deformation Test	IS:5831-1984 IS:10810 (Part-15)-1984	Amb-400°C Variable Weight: 0 to 100%
		Thermal Stability	IS:5831-1984 IS:10810 (Part-60)-1984	Amb-200°C

	& Including11kV. IS:1554 (Part-2)-1988	Insulation Resistance Test	IS:5831-1984 IS:10810 (Part-43)-1984	Upto $10^{16}\Omega$
		High Voltage Test	IS:10810 (Part-45)-1984	0 to 100 kV (Qualitative) L.C.: 1 kV
7.	**Cross- linked Polyethylene Insulated Thermoplastic Sheathed cables for working voltages from 3.3 kV up to & Including 33kV. IS:7098(P-2):1985**	High Voltage Test	IS:10810 (Part-45)-1984	0 to 100 kV (Qualitative) L.C.: 1 kV
		A.C. High voltage Test (Water Absorption)	IS:10810 (Part-45)-1984	0 to 10 kV Amb-199.9°C
		D.C. High voltage Test (Water Absorption)	IS:10810 (Part-45)-1984	0 to 5 kV Amb-199.9°C
		Flammability Test	IS:10810 (Part-53)-1984	Up to -300 mm Diameter
		Cold Bend Test	IS:5831-1984 IS:10810 (Part-20)-1984	(-) 20°C to (+) 50°C Mandrels size 4.68 mm, 6 mm, 6.17 mm, 6.3 mm, 6.59 mm, 6.77 mm, 9.12 mm, 9.52 mm, 10.1 mm, 11.9 mm, 14 mm, 15.9 mm, 16.26 mm, 19.95 mm, 24.9 mm, 38.2 mm, 50.5 mm, 76.3 mm,
		Cold Impact Test	IS:5831-1984	(-) 20°C to (+) 50°C
		Additional Ageing Test	IS:694-1990 Cl. 16.6	0 to 10 kV Amb-199.9°C Amb-400°C
		Hot Set Test	IS:10810 (Part-30)-1984	Amb-200°C 0 to 50 %
		Water Absorption Test (Gravimetric)	IS:10810 (Part-33)-1984 IS:7098(Part-1)-	Amb-200°C 0 to 10 mg/cm^2
		Tensile Strength & Elongation at Break for Insulation	IS:10810 (Part-7)-1984	0 to 30 kN
		Ageing in air oven Insulation	IS:10810 (Part-11)-1984	Amb-199.9°C
		Shrinkage Test	IS:10810 (Part-12)-1984	Amb-400°C 0 to 50 %
		Melt flow Index	IS:10810 (Part-23)-1984	Upto-250°C, LC 0.01°C Upto 50N (0.1 to 10gm/10min)
		Carbon Black Test	IS:10810 (Part-32)-1984	0 to 600°C
		Vicat Softening Test	IS:10810 (Part-22)-1984	0 to 150°C
		Environmental Stress Cracking	IS:10810 (Part-29)-1984	Qualitative

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Bending Test	Cl. 11.4 of IS:14255:1995	Mandrels size: 90 mm, 110 mm, 160 mm, 200 mm, 220 mm, 225 mm, 227 mm, 280 mm, 248 mm, 320 mm, 360 mm, 405 mm, 502 mm, 562 mm, 630 mm
		Test for round steel wire/ formed steel wire (strip) armour		
		Dimension	IS:10810 (Part-36)-1984	0 to 25 mm
		Tensile strength & Elongation at break	IS:10810 (Part-37)-1984	0 to 30 kN 0 to 50 %
		Torsion Test for round wires	IS:10810 (Part-38)-1984	Qualitative
		Winding Test for formed wire	IS:10810 (Part-39)-1984	Qualitative
		Uniformity of zinc coating test	IS:10810 (P-40)-1984	Qualitative
		Mass of zinc coating test	IS:10810 (Part-41)-1984	0 to 500 gm/m^2
		Resistivity test	IS:10810 (Part-42)-1984	0.2 μΩ to 11 Ω 0 to 600 Ω/km
		Oxygen Index Test	IS:10810 (Part-58)	0 to 100 %

Flame Retardance test on Single cable	IS:10810 (Part-61)	0 to 1000°C, LC: 1°C 0 to 5 m, LC: 1 mm 0 to 60 min, LC: 0.01/1sec
Flame Retardance test on Bunched cable	IS:10810 (Part-62)	0 to 5 m, LC: 1 mm 0 to 60 min, LC: 0.01/1sec
Smoke Density	IS:10810 (Part-63)	0 to 100 %
Test for Halogen acid gas evolution	IS:10810 (Part-59)	0 to 1200°C 0 to 100 %
Temperature Index Test	IS:10810 (Part-64)	Up to 500°C
Physical Test of Thermoplastic Polyethylene sheath		
Tensile strength & Elongation at break	IS:10810 (Part-7)-1984	0 to 30 kN
Ageing in air oven	IS:10810 (Part-11)-1984	Amb. to 199.9^{o}C
Carbon Black Test	IS:10810 (Part-32)-1984	Amb. to 600^{o}C
Hot Deformation Test	IS:10810 (Part-14)-1984	Amb. to 600^{o}C Weigh 0 to 100%
Test for Thickness of Insulation (Eccentricity) and sheath	IS:7098 (Part-2)-1985 Annex-A	0 to 150mm, 0 to 50%
Test for extruded Semi conducting screen		
Strip ability of Semi conducting strippable insulation Screen	IS:7098(Part-2)-2011 Annex-B	0 to 30 kN (Qualitative)
Resistivity test for semi conducting screen a) Conductor screen b) Core screen	IS:7098(Part-2)-2011 Annex-E	0 to 500 KΩ
Thermal Ageing Test for complete cable	IS:7098(Part-2)-2011	0 to 199.9^{o}C (Qualitative)
Bending Test	IS:10810 (Part-50)	Qualitative
Partial Discharge Test	IS:10810 (Part-46)	0 to 100 kV, LC: 0.1kV 0 to 2000pC, LC: 0.1pC
Dielectric Power factor as a function of voltages & as a function of Temperature	IS:10810 (Part-48)-	0 to 50 kV 0 to 2000 A 0 to 200 ^{o}C
Heat Cycle Test	IS:10810 (Part-49)	0 to 200^{o}C

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Impulse with stand Test	IS:10810(Part-47)	0 to 300 kV
		Breaking Load	IS:108010(Part-2)	0 to 30000 N
		Elongation test	IS:14255-1995	0 to 100%
8.	**Elastomer insulated cables (Part-2) for Working Voltages from 3.3 kV up to and including 33 kV IS:9968 (Part-2)-2002**	Per sulphate test (for Copper)	IS:8130 - 1984 IS:10810(Part-4)-1984	0 to 10 gm/m^3
		Ageing in air bomb	IS:6380 -1984 IS:10810 (Part-16)-1984	0 to 199.9ºC , LC: 0.1ºC 0 to 100%
		Ageing in Oxygen bomb	IS:6380 - 1984 IS:10810 (Part-56)-1984	0 to 199.9ºC , LC: 0.1ºC 0 to 100%
		Oil resistance	IS:6380 - 1984 IS:10810(Part-31)-1984	0 to 199.9ºC , LC: 0.1ºC
		Tear resistance	IS:6380 - 1984 IS:10810(Part-17)-1984	0 to 2500 N, LC: 0.1 N
		Water absorption test	IS:10810(Part-28)-1984	0 to 20 PF, LC: 1 PF 0 to 5 kV, LC: 0.01 kV 0 to 199.9ºC, LC: 0.1ºC
9.	**Aluminium Conductors for overhead transmission purpose IS 398 (Part-1,2,4,5) 1996**	Diameter of Aluminium wire steel wire	IS:398(Part-1,2,4 & 5)	0 to 25 mm
		Breaking Load of Aluminium wire Steel wire	IS:398 (Part-1, 2, 4 & 5)-1996	0 to 30 kN
		Wrapping Test of Aluminium	IS:398 (Part-1, 2, 4 & 5)-1996	Different Size

wire Steel wire		Mandrels
Resistance Test	IS:398 (Part-1, 2, 4 & 5)-1996	0.2 μΩ to 11 Ω 0 to 600 Ω/km
Lay Ratio/Direction of Lay	IS:398 (Part-1, 2, 4 & 5)-1996	0 to 150 mm 0 to 610 mm
Ductility Test: a) Torsion Test b) Elongation test	IS:398(Part-2)-1996	Qualitative 0 to 50 %
Galvanizing Test: a) Uniformity of zinc coating b) Mass of zinc coating	IS:2633-1972 IS:6745-1972	Qualitative 0 to 500 gm/m^2
Visual examination	IS:398 (Part-1, 2, 4 & 5)-1996	Qualitative

-X-X-X-X-X-X-X-X-X-X-X-X-X-X-