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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. | CABLE AND ACCESSORIES | | | |
| 1. | Polyvinyl Chloride Insulated Unsheathed and Sheathed Cables / Cords With Rigid and Flexible Conductor | Annealing Test for Copper Conductor | IS 694: 2010 IS 8130: 1984 IS 10810 (Part 1):1984 | 1 N to 5000 N |
| | | Tensile Strength for Aluminium Conductor | IS 694: 2010 IS 8130: 1984 IS 10810 (Part 2): 1984 | 1 N to 5000 N |
| | | Wrapping Test for Aluminium Conductor | IS 694: 2010 IS 8130: 1984 IS 10810 (Part 3): 1984 | Qualitative |
| | | Persulphate Test of Tinned Copper | IS 694: 2010 IS 8130: 1984 IS 10810 (Part 4): 1984 | Upto 5 g/m ² |
| | | Conductor Resistance Test | IS 694: 2010 IS 8130: 1984 IS 10810 (Part 5): 1984 | 0.2 μΩ to 11 Ω |
| | | Test for overall dimension Thickness of Insulation/ Sheath | IS 694: 2010 IS 10810 (Part 6): 1984 | 0.01 mm to 150 mm |
| | | Tensile Strength & Elongation at Break of Insulation / Sheath | IS 694: 2010 IS 5831: 1984 IS 10810 (Part 7): 1984 | Upto 5000 N |
| | | Loss of Mass Test of Insulation / Sheath | IS 694: 2010 IS 5831: 1984 IS 10810 (Part 10): 1984 | Ambient to 300 °C |

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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 |
|---------------|--|---|--|--|
| | Polyvinyl Chloride Insulated Unsheathed and Sheathed Cables / Cords With Rigid and Flexible Conductor | Ageing in Air Oven of Insulation / Sheath | IS 694: 2010 IS 5831: 1984 IS 10810 (Part 11): 1984 | Ambient to 300 °C 1 N to 5000 N |
| | | Shrinkage Test of Insulation / Sheath | IS 694: 2010 IS 5831: 1984 IS 10810 (Part 12): 1984 | Ambient to 300 °C Upto 300 mm |
| | | Heat Shock Test of Insulation / Sheath | IS 694: 2010 IS 5831: 1984 IS 10810 (Part 14): 1984 | Qualitative Ambient to 300 °C |
| | | Hot Deformation Test of Insulation / Sheath | IS 694: 2010 IS 5831: 1984 IS 10810 (Part 15): 1984 | Ambient to 300 °C |
| | | Thermal Stability Test of Insulation / Sheath | IS 694: 2010 IS 5831: 1984 IS 10810 (Part 60): 1984 | Qualitative Ambient to 300 °C Upto 300 min |
| | | Insulation Resistance | IS 694: 2010 IS 5831: 1984 IS 10810 (Part 43): 1984 | 0.2x10 ⁶ MΩ Km to 100 x 10 ⁶ MΩ Km |
| | | Volume Resistivity | IS 694: 2010 IS 5831: 1984 IS 10810 (Part 43): 1984 | 0.2x10 ⁶ MΩ to 100 x10 ⁶ MΩ |
| | | Flammability Test | IS 694: 2010 IS 10810 (Part 53): 1984 | 0.01 s to 15 min Upto 300 mm |
| | | Cold Bend Test | IS 694: 2010 IS 5831: 1984 IS 10810 (Part 20): 1984 | Qualitative |

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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 |
|---------------|--|--|--|---|
| | Polyvinyl Chloride Insulated Unsheathed and Sheathed Cables / Cords With Rigid and Flexible Conductor | Cold Impact Test | IS 694: 2010 IS 5831: 1984 IS 10810 (Part 21): 1984 | Qualitative |
| | | Additional Ageing Test | IS 694:2010 Clause. 6.6 | Qualitative |
| | | Flame Retardance Test on Single Cable | IS 694: 2010 IS 10810 (Part 61): 1984 | Qualitative |
| | | Smoke Density of Insulation / Sheath | IS 694: 2010 ASTM D 2843:1977 IS 10810 (Part 63): 1984 | Upto 100 % |
| | | Oxygen Index Test of Insulation / Sheath | IS 694: 2010 IS 10810 (Part 58): 1984 ASTM D 2863:2000 | Ambient to 500 °C 0 to 100 % |
| | | Temperature Index of Insulation / Sheath | IS 694: 2010 IS 10810 (Part 64): 1984 | Ambient to 500 °C 0 to 100 % |
| | | Halogen Acid Gas of Insulation / Sheath | IS 694: 2010 IEC 60754-1: 2011 | Ambient to 1300 °C Upto 30 % |
| | | Water Immersion (AC High Voltage Test) | IS 694 : 2010 IS 10810 (Pt-45): 1984 | Qualitative (Upto 7 kV) |
| | | Water Immersion (DC High Voltage Test) | IS 694 : 2010 IS 10810 (Pt-45): 1984 | Qualitative (Upto 7 kV) |
| | AC High Voltage Test (Room Temp) | IS 694 : 2010 IS 10810 (Pt-45): 1984 | Qualitative (Upto 2.5 kV) | |

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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 |
|---------------|---|---|---|---|
| 2. | PVC Insulated (Heavy Duty) Electric Cables | Annealing Test for Copper Conductor | IS 1554 (Part 1): 1988 (RA 1999) IS 8130: 1984 IS 10810 (Part 1): 1984 | 1 N to 5000 N |
| | | Tensile Strength for Aluminium Conductor | IS 1554 (Part 1): 1988 (RA 1999) IS 8130: 1984 IS 10810 (Part 2): 1984 | 1 N to 5000 N |
| | | Wrapping Test for Aluminium Conductor | IS 1554 (Part 1): 1988 (RA 1999) IS 8130: 1984 IS 10810 (Part 3): 1984 | Qualitative |
| | | Conductor Resistance | IS 1554 (Part 1): 1988 (RA 1999) IS 8130: 1984 IS 10810 (Part 5): 1984 | 0.2 $\mu\Omega$ to 11 Ω |
| | | Test for overall dimension Thickness of Insulation & Sheath | IS 1554 (Part 1): 1988 (RA 1999) IS 10810 (Part 6): 1984 | 0.01 mm to 150 mm |
| | | Tensile Strength & Elongation at Break of Insulation & Sheath | IS 1554 (Part 1): 1988 (RA 1999) IS 5831: 1984 IS 10810 (Part 7): 1984 | Upto 5000 N |
| | | Loss of Mass Test of Insulation & Sheath | IS 1554 (Part 1): 1988 (RA 1999) IS 5831: 1984 IS 10810 (Part 10): 1984 | Ambient to 300 °C |
| | | Ageing in Air Oven of Insulation & Sheath | IS 1554 (Part 1): 1988 (RA 1999) IS 5831: 1984 IS 10810 (Part 11): 1984 | Ambient to 300 °C 1 N to 5000 N |

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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 Cables | Shrinkage Test of Insulation / Sheath | IS 1554 (Part 1): 1988 (RA 1999) IS 5831: 1984 IS 10810 (Part 12): 1984 | Ambient to 300 °C Upto 300 mm |
| | | Heat Shock Test of Insulation / Sheath | IS 1554 (Part 1): 1988 (RA 1999) IS 5831: 1984 IS 10810 (Part 14): 1984 | Qualitative Ambient to 300 °C |
| | | Hot Deformation Test of Insulation / Sheath | IS 1554 (Part 1): 1988 (RA 1999) IS 5831: 1984 IS 10810 (Part 15): 1984 | Ambient to 300 °C |
| | | Thermal Stability of Test Insulation / Sheath | IS 1554 (Part 1): 1988 (RA 1999) IS 5831: 1984 IS 10810 (Part 60): 1984 | Qualitative Ambient to 300 °C Upto 300 min |
| | | Insulation Resistance Test | IS 1554 (Part 1): 1988 (RA 1999) IS 5831: 1984 IS 10810 (Part 43): 1984 | 0.2 x 10 ⁶ MΩ Km to 100 x 10 ⁶ MΩ Km |
| | | Volume Resistivity | IS 1554 (Part 1): 1988 (RA 1999) IS 5831: 1984 IS 10810 (Part 43): 1984 | 0.2x10 ⁶ MΩ to 100 x10 ⁶ MΩ |
| | | Flammability Test | IS 1554 (Part 1): 1988 (RA 1999) IS 10810 (Part 53): 1984 | 0.01 s to 15 min Upto 300 mm |
| | | Cold Bend Test | IS 1554 (Part 1): 1988 (RA 1999) IS 5831: 1984 IS 10810 (Part 20): 1984 | Qualitative |
| | | Cold Impact Test | IS 1554 (Part 1): 1988 (RA 1999) IS 5831: 1984 IS 10810 (Part 21): 1984 | Qualitative |

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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 Cables | Flame Retardance Test on Single Cable | IS 1554 (Part 1): 1988 (RA 1999) IS 10810 (Part 61): 1984 | Qualitative |
| | | Smoke Density | IS 1554 (Part 1): 1988 (RA 1999) ASTM D 2843 IS 10810 (Part 63): 1984 | Upto 100 % |
| | | Oxygen Index Test | IS 1554 (Part 1): 1988 (RA 1999) IS 10810 (Part 58): 1984 ASTM D 2863: 2000 | Ambient to 500 °C Upto 100 % |
| | | Temperature Index | IS 1554 (Part 1): 1988 (RA 1999) IS 10810 (Part 64): 1984 | Ambient to 500 °C Upto 100 % |
| | | Halogen Acid Gas | IS 1554 (Part 1): 1988 (RA 1999) IS 10810 (Part 64): 1984/ IEC 60754-1: 2011 | Ambient to 1300 °C |
| | | Water Immersion (AC High Voltage Test) | IS 1554 (Part 1): 1988 (RA 1999) IS 10810 (Part 45)-1984 | Qualitative (Upto 7 kV) |
| | | Water Immersion (DC High Voltage Test) | IS 1554 (Part 1): 1988 (RA 1999) IS 10810 (Part 45): 1984 | Qualitative (Upto 7 kV) |
| | | AC High Voltage Test (Room Temp) | IS 1554 (Part 1): 1988 (RA 1999) IS 10810 (Part 45): 1984 | Qualitative (Upto 2.5 kV) |
| 3. | Crosslinked Polyethylene Insulated PVC Sheathed Cable | Annealing Test for Copper Conductor | IS 7098 (Part 1): 1988 (RA 2010) IS 8130: 1984 IS 10810 (Part 1): 1984 | 1 N to 5000 N |
| | | Tensile Strength for Aluminium Conductor | IS 7098 (Part 1): 1988 (RA 2010) IS 8130: 1984 IS 10810 (Part 2): 1984 | 1 N to 5000 N |

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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 |
|---------------|--|---|---|---|
| | Crosslinked Polyethylene Insulated PVC Sheathed Cable | Wrapping Test for Aluminium Conductor | IS 7098 (Part 1): 1988 (RA 2010) IS 8130: 1984 IS 10810 (Part 3): 1984 | Qualitative |
| | | Conductor Resistance | IS 7098 (Part 1): 1988 (RA 2010) IS 8130: 1984 IS 10810 (Part 5): 1984 | 0.2 $\mu\Omega$ to 11 Ω |
| | | Test for overall dimension, Thickness of Insulation & Sheath | IS 7098 (Part 1): 1988 (RA 2010) IS 10810 (Part 6): 1984 | 0 to 150 mm |
| | | Tensile Strength & Elongation at Break of Insulation & Sheath | IS 7098 (Part 1): 1988 (RA 2010) IS 5831: 1984 IS 10810 (Part 7): 1984 | Upto 5000N |
| | | Loss of Mass Test of Insulation & Sheath | IS 7098 (Part 1): 1988 (RA 2010) IS 5831: 1984 IS 10810 (Part 10): 1984 | Ambient to 300 °C |
| | | Ageing in Air Oven of Insulation & Sheath | IS 7098 (Part 1): 1988 (RA 2010) IS 5831: 1984 IS 10810 (Part 11): 1984 | Ambient to 300 °C 1 N to 5000 N |
| | | Shrinkage Test of Insulation & Sheath | IS 7098 (Part 1): 1988 (RA 2010) IS 5831: 1984 IS 10810 (Part 12): 1984 | Ambient to 300 °C Upto 300 mm |
| | | Heat Shock Test on Outer Sheath | IS 7098 (Part 1): 1988 (RA 2010) IS 5831: 1984 IS 10810 (Part 14): 1984 | Qualitative Ambient to 300 °C |

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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 |
|---------------|--|--|---|--|
| | Crosslinked Polyethylene Insulated PVC Sheathed Cable | Hot Deformation Test on Outer Sheath | IS 7098 (Part 1): 1988 (RA 2010) IS 5831: 1984 IS 10810 (Part 15): 1984 | Ambient to 300 °C |
| | | Thermal Stability Test on Outer Sheath | IS 7098 (Part 1): 1988 (RA 2010) IS 5831: 1984 IS 10810 (Part 60): 1984 | Qualitative Ambient to 300 °C Upto 300 min. |
| | | Insulation Resistance | IS 7098 (Part 1): 1988 (RA 2010) IS 5831: 1984 IS 10810 (Part 43): 1984 | 0.2 x 10 ⁶ MΩ Km to 100 x 10 ⁶ MΩ Km |
| | | Volume Resistivity | IS 7098 (Part 1): 1988 (RA 2010) IS 5831: 1984 IS 10810 (Part 43): 1984 | 0.2x10 ⁶ MΩ to 100 x10 ⁶ MΩ |
| | | Flammability Test | IS 7098 (Part 1): 1988 (RA 2010) IS 10810 (Part 53): 1984 | 0.01 s to 15 min Upto 300 mm |
| | | Cold Bend Test | IS 7098 (Part 1): 1988 (RA 2010) IS 5831: 1984 IS 10810 (Part 20): 1984 | Qualitative |
| | | Cold Impact Test | IS 7098 (Part 1): 1988 (RA 2010) IS 5831: 1984 IS 10810 (Part 21): 1984 | Qualitative |
| | | Flame Retardance Test on Single Cable | IS 7098 (Part 1): 1988 (RA 2010) IS 10810 (Part 61): 1984 | Qualitative |
| | | Smoke Density | IS 7098 (Part 1): 1988 (RA 2010) ASTM D 2843: 1977 IS 10810 (Part 63): 1984 | Upto 100 % |

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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 |
|---------------|--|-------------------------------------|---|---|
| | Crosslinked Polyethylene Insulated PVC Sheathed Cable | Oxygen Index Test | IS 7098 (Part 1): 1988 (RA 2010) IS 10810 (Part 58): 1984 ASTM D 2863: 2000 | Ambient to 400 °C Upto 100 % |
| | | Temperature Index | IS 7098 (Part 1): 1988 (RA 2010) IS 10810 (Part 64): 1984 | Ambient to 400 °C Upto 100 % |
| | | Halogen Acid Gas | IS 7098 (Part 1): 1988 (RA 2010) IEC 60754-1: 2011 | Ambient to 1300 °C |
| | | Hot Set Test on Insulation | IS 7098 (Part 1): 1988 (RA 2010) IS 10810 (Part 30): 1984 | Ambient to 250 °C |
| | | Water Absorption Test (Gravimetric) | IS 7098 (Part 1): 1988 (RA 2010) IS 10810 (Part 33): 1984 IS 6380: 1984 | Ambient to 200 °C 0.1 mg to 200 g |
| | | AC High Voltage Test (Room Temp) | IS 7098 (Part-1)1988 (RA 2010) IS 10810 (Part -45)-1984 | Qualitative (Upto 7 kV) |
| 4. | Welding Cables | Annealing Test for Copper Conductor | IS 9857: 1990 (RA 2010) IS 8130: 1984 IS 10810 (Part 1):1984 | 1 N to 5000 N |
| | | Conductor Resistance | IS 9857: 1990 (RA 2010) IS 8130: 1984 IS 10810 (Part 5): 1984 | 0.2 μΩ to 11 Ω |
| | | Test for Thickness of Covering | IS 9857: 1990 (RA 2010) IS 10810 (Part 6): 1984 | 0 to 150 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 |
|---------------|-----------------------------------|--|--|---|
| | Welding Cables | Tensile Strength & Elongation at Break of Covering | IS 9857: 1990 (RA 2010) IS 5831: 1984 IS 10810 (Part 7): 1984 | Upto 5000 N |
| | | Loss of Mass Test of Covering | IS 9857: 1990 (RA 2010) IS 5831: 1984 IS 10810 (Part 10): 1984 | Ambient to 300 °C |
| | | Ageing in Air Oven of Covering | IS 9857: 1990 (RA 2010) IS 5831: 1984 IS 10810 (Part 11): 1984 | Ambient to 300 °C 1 N to 5000 N |
| | | Ageing in Air Bomb | IS 9857: 1990 (RA 2010) IS 10810 (Part 56): 1984 IS 6380: 1984 | Qualitative Ambient to 300 °C |
| | | Tensile strength % Elongation | | Upto 5000 N 20 % to 50 % |
| | | Hot Set Test | IS 9857: 1990 (RA 2010) IS 10810 (Part 30): 1984 | Ambient to 250 °C |
| | | Oil Resistance | IS 9857: 1990 (RA 2010) IS 10810 (Part 31): 1984 IS 6380: 1984 | Ambient to 250 °C |
| | | Flammability Test | IS 9857: 1990 (RA 2010) IS 10810 (Part 53): 1984 | 0 .01 s to 15 min Upto 300 mm |
| | | Flexibility Test | IS 9857: 1990 (RA 2010) IS 10810 (Part 54): 1984 | Qualitative Upto 90° |
| | | Water Immersion (AC High Voltage Test) | IS9857-1990 (RA 2010) IS 10810 (Pt-45): 1984 | Qualitative (Upto 7 kV) |

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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 |
|---------------|--|--|---|--|
| 5. | Aerial Bunched Cables | Tensile Test on Phase/ Street Light Conductor | IS 14255:1995 (RA 2005) IS 8130: 1984 IS 10810 (Part 2): 1984 | 1 N to 5000 N |
| | | Wrapping Test on Phase/ Street Light Conductor | IS 14255: 1995 (RA 2005) IS 8130: 1984 IS 10810 (Part 3): 1984 | Qualitative |
| | | Conductor Resistance Test on Phase/ Street Light Conductor & Messenger Conductor | IS 14255: 1995 (RA 2005) IS 8130: 1984 IS 10810 (Part 5): 1984 | 0.2 $\mu\Omega$ to 11 Ω |
| | | Test for overall dimension Test for Thickness of Insulation | IS 14255: 1995 (RA 2005) IS 10810 (Part 6): 1984 | Upto 150 mm |
| | | Tensile Strength & Elongation at Break of PE & XLPE Insulation | IS 14255: 1995 (RA 2005) IS 5831: 1984 IS 10810 (Part 7): 1984 | Upto 5000 N |
| | | Ageing in Air Oven of XLPE Insulation | IS 14255: 1995 (RA 2005) IS 5831: 1984 IS 10810 (Part 11): 1984 | Ambient to 300 $^{\circ}\text{C}$ 1 N to 5000 N |
| | | Shrinkage Test on XLPE Insulation | IS 14255: 1995 (RA 2005) IS 5831: 1984 IS 10810 (Part 12): 1984 | Ambient to 300 $^{\circ}\text{C}$ Upto 300 mm |
| | | Hot Set Test on XLPE Insulation | IS 14255: 1995 (RA 2010) IS 10810 (Part 30): 1984 | Ambient to 250 $^{\circ}\text{C}$ |
| | Water Absorption Test on XLPE Insulation (Galvanometric) | IS 14255: 1995 (RA 2010) IS 10810 (Part 33): 1984 IS 6380: 1984 | Ambient to 200 $^{\circ}\text{C}$ 0.1 mg to 200 g | |

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|---------------|-----------------------------------|---|--|---|
| | Aerial Bunched Cables | Melt Flow Index on PE Insulation | IS 14255: 1995 (RA 2010) IS 10810 (Part 33): 1984 | (3 g to 10 g)/10 min |
| | | Carbon Black Test for PE & XLPE Insulation 1. Content 2. Dispersion | IS 14255: 1995 (RA 2010) IS 10810 (Part 32): 1984 | By Mass Ambient to 500 °C Upto 1 kg |
| | | Insulation Resistance (Volume Resistivity) | IS 14255: 1995 (RA 2010) IS 5831: 1984 IS 10810 (Part 43): 1984 | 0.2x10 ⁶ MΩ to 100 x10 ⁶ MΩ |
| | | Breaking Load Test on Messenger Conductor | IS 14255: 1995 (RA 2010) | Upto 5000 N |
| | | A.C. High Voltage Test (Room Temp) | IS 14255:1995 (RA 2010) IS 10810 (Pt-45)-1984 | Qualitative (Upto 7 kV) |
| 6. | Elastomer Insulated Cables | Annealing Test for Copper Conductor | IS 9968 (Part 1): 1988 (RA 2010) IS 8130: 1984 IS 10810 (Part 1): 1984 | 1 N to 5000 N |
| | | Tensile Strength for Aluminium Conductor | IS 9968 (Part 1): 1988 (RA 2010) IS 8130: 1984 IS 10810 (Part 2): 1984 | 1 N to 5000 N |
| | | Wrapping Test for Aluminium Conductor | IS 9968 (Part 1): 1988 (RA 2010) IS 8130: 1984 IS 10810 (Part 3): 1984 | Qualitative |
| | | Persulphate Test of Tinned Copper | IS 9968 (Part 1): 1988 (RA 2010) IS 8130: 1984 IS 10810 (Part 4): 1984 | Upto 5 g/m ² |

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|---------------|-----------------------------------|---|---|---|
| | Elastomer Insulated Cables | Conductor Resistance | IS 9968 (Part 1): 1988 (RA 2010) IS 8130: 1984 IS 10810 (Part 5): 1984 | 0.2 $\mu\Omega$ to 11 Ω |
| | | Test for overall dimension, Thickness of Insulation & Sheath | IS 9968 (Part 1): 1988 (RA 2010) IS 10810 (Part 6): 1984 | 0 to 150 mm |
| | | Tensile Strength & Elongation at Break of Insulation & Sheath | IS 9968 (Part 1): 1988 (RA 2010) IS 5831: 1984 IS 10810 (Part 7): 1984 | Upto 5000 N |
| | | Ageing in Air Oven of Insulation & Sheath | IS 9968 (Part 1): 1988 (RA 2010) IS 5831: 1984 IS 10810 (Part 11): 1984 | Ambient to 300 °C 1 N to 5000 N |
| | | Ageing in Air Bomb | IS 9968 (Part 1): 1988 (RA 2010) IS 10810 (Part 56): 1984 IS 6380: 1984 | Qualitative Ambient to 300 °C |
| | | Tensile strength % Elongation | | Upto 5000 N 20 % to 50 % |
| | | Ageing in Oxygen Bomb | IS 9968 (Part 1): 1988 (RA 2010) IS 10810 (Part 16): 1984 IS 6380: 1984 | Qualitative Ambient to 300 °C |
| | | Tensile strength % Elongation | | Upto 5000 N 20 % to 50 % |
| | | Hot Set Test | IS 9968 (Part 1): 1988 (RA 2010) IS 10810 (Part 30): 1984 | Ambient to 250 °C |
| | | Oil Resistance | IS 9968 (Part 1): 1988 (RA 2010) IS 10810 (Part 31): 1984 IS 6380: 1984 | Ambient to 250 °C |

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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 |
|---------------|-----------------------------------|---|---|---|
| | Elastomer Insulated Cables | Tear Resistance | IS 9968 (Part 1): 1988 (RA 2010) IS 10810 (Part 17): 1984 | 0.001 kN to 2.5 kN |
| | | Insulation Resistance | IS 9968 (Part 1): 1988 (RA 2010) IS 5831: 1984 IS 10810 (Part 43): 1984 | 0.2x10 ⁶ MΩ Km to 100 x10 ⁶ MΩ Km |
| | | Flammability Test | IS 9968 (Part 1): 1988 (RA 2010) IS 10810 (Part 53): 1984 | 0.01 s to 15 min Upto 300 mm |
| | | A.C. High Voltage Test at (Room Temp) | IS 9968 (Pt-1) 1988 (RA 2010) IS 10810 (Pt-45)-1984 | Qualitative (Upto 7 kV) |
| | | Water Immersion (A.C. High Voltage Test) | IS 9968 (Pt-1) 1988 (RA 2010) IS 10810 (Pt-45)-1984 | Qualitative (Upto 7 kV) |
| 7. | Shot Firing Cables | Annealing Test for Copper Conductor | IS 5950: 1984 (RA 2001) IS 8130: 1984 IS 10810 (Part 1): 1984 | 1 N to 5000 N |
| | | Conductor Resistance | IS 5950: 1984 (RA 2001) IS 8130: 1984 IS 10810 (Part 5): 1984 | 0.2 μΩ to 11 Ω |
| | | Test for overall dimension, Thickness of Insulation & Sheath | IS 5950: 1984 (RA 2001) IS 10810 (Part 6): 1984 | Upto 150 mm |
| | | Tensile Strength & Elongation at Break of Insulation & Sheath | IS 5950: 1984 (RA 2001) IS 5831: 1984 IS 10810 (Part 7): 1984 | Upto 5000 N |
| | | Loss of Mass Test of Insulation & Sheath | IS 5950: 1984 (RA 2001) IS 5831: 1984 IS 10810 (Part 10): 1984 | Ambient to 300 °C |

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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 |
|---------------|-----------------------------------|---|--|--|
| | Shot Firing Cables | Ageing in Air Oven of Insulation & Sheath | IS 5950: 1984 (RA 2001) IS 5831: 1984 IS 10810 (Part 11): 1984 | Ambient to 300 °C 1 N to 5000 N |
| | | Shrinkage Test | IS 5950: 1984 (RA 2001) IS 5831: 1984 IS 10810 (Part 12): 1984 | Ambient to 300 °C Upto 300 mm |
| | | Heat Shock Test | IS 5950: 1984 (RA 2001) IS 5831: 1984 IS 10810 (Part 14): 1984 | Qualitative Ambient to 300 °C |
| | | Hot Deformation Test | IS 5950: 1984 (RA 2001) IS 5831: 1984 IS 10810 (Part 15): 1984 | Ambient to 300 °C |
| | | Insulation Resistance | IS 5950: 1984 (RA 2001) IS 5831: 1984 IS 10810 (Part 43): 1984 | 0.2x10 ⁶ MΩ Km to 100 x10 ⁶ MΩ Km |
| | | Flammability Test | IS 5950: 1984 (RA 2001) IS 10810 (Part 53): 1984 | 0.01 s to 15 min Upto 300 mm |
| | | A.C. High Voltage Test at (Room Temp) | IS 5950-1984 (RA 2001) IS 10810 (Pt-45)-1984 | Qualitative (Upto 7 kV) |
| 8. | Cables for Motor Vehicles | Annealing Test for Copper Conductor | IS 2465: 1984 (RA 2011) IS 8130: 1984 IS 10810 (Part 1): 1984 | 1 N to 5000 N |
| | | Persulphate Test of Tinned Copper | IS 2465: 1984 (RA 2011) IS 8130: 1984 IS 10810 (Part 4): 1984 | Upto 5 g/m ² |

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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 |
|---------------|-----------------------------------|---|--|--|
| | Cables for Motor Vehicles | Conductor Resistance | IS 2465: 1984 (RA 2011) IS 8130: 1984 IS 10810 (Part 5): 1984 | 0.2 $\mu\Omega$ to 11 Ω |
| | | Test for overall dimension, Thickness of Insulation & Sheath | IS 2465: 1984 (RA 2011) IS 10810 (Part 6): 1984 | Upto 150 mm |
| | | Tensile Strength & Elongation at Break of Insulation & Sheath | IS 2465: 1984 (RA 2011) IS 5831: 1984 IS 10810 (Part 7): 1984 | Upto 5000 N |
| | | Loss of Mass Test of Insulation & Sheath | IS 2465: 1984 (RA 2011) IS 5831: 1984 IS 10810 (Part 10): 1984 | Ambient to 300 $^{\circ}\text{C}$ |
| | | Ageing in Air Oven of Insulation & Sheath | IS 2465: 1984 (RA 2011) IS 5831: 1984 IS 10810 (Part 11): 1984 | Ambient to 300 $^{\circ}\text{C}$ 1 N to 5000 N |
| | | Heat Shock Test of Insulation & Sheath | IS 2465: 1984 (RA 2011) IS 5831: 1984 IS 10810 (Part 14): 1984 | Qualitative Ambient to 300 $^{\circ}\text{C}$ |
| | | Hot Deformation Test of Insulation & Sheath | IS 2465: 1984 (RA 2011) IS 5831: 1984 IS 10810 (Part 15): 1984 | Ambient to 300 $^{\circ}\text{C}$ |
| | | Flammability Test | IS 2465: 1984 (RA 2011) IS 10810 (Part 53): 1984 | 0.01 s to 15 min Upto 300 mm |
| | | Cold Bend Test | IS 2465: 1984 (RA 2011) IS 5831: 1984 IS 10810 (Part 20): 1984 | Qualitative |

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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 |
|---------------|--|---|---|---|
| | Cables for Motor Vehicles | Cold Impact Test | IS 2465: 1984 (RA 2011) IS 5831: 1984 IS 10810 (Part 21): 1984 | Qualitative |
| | | Effect of cooling on Flexibility | IS 2465: 1984 (RA 2011) | Qualitative |
| | | Ageing in Oxygen Bomb | IS 2465: 1984 (RA 2011) IS 10810 (Part 16): 1984 IS 6380: 1984 | Upto 300 °C |
| | | Tensile strength % Elongation | | Upto 5000 N 20 % to 50 % |
| | | A.C. High Voltage Test at (Room Temp) | IS 2465-1984 (RA 2011) IS 10810 (Pt-45): 1984 | Qualitative (Upto 7 kV) |
| 9. | Aluminium Conductors for Overhead Transmission Purposes Aluminium Stranded Conductors | Diameter of Aluminium Wire | IS 398 (Part 1): 1996 (RA 2001) IS 8130: 1984 | 0.01 mm to 25 mm |
| | | Wrapping Test | IS 398 (Part 1): 1996 (RA 2001) IS 10810 (Part 3): 1984 IS 8130: 1984 | Qualitative |
| | | Conductor Resistance Test | IS 398 (Part 1): 1996 (RA 2001) IS 10810 (Part 5): 1984 | 0.2 μΩ to 11 Ω |
| | | Measurement of Lay Ratio/ Direction of Lay | IS 398 (Part 1): 1996 (RA 2001) | 1mm to 300 mm |
| | | Breaking Load test of Individual Aluminium Wire | IS 398 (Part 1): 1996 (RA 2001) | Upto 5000 N |

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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 |
|---------------|--|--|---|---|
| | Aluminium Conductors for Overhead Transmission Purposes Aluminium Stranded Conductors | Diameter of Aluminium & Galvanized Steel Wire | IS 398 (Part 2): 1996 (RA 2002) IS 8130: 1984 | 0.01 mm to 25 mm |
| | | Wrapping Test on Aluminum Conductor & Galvanized Steel Wire | IS 398 (Part 2): 1996 (RA 2002) IS 10810 (Part 3): 1984 IS 8130: 1984 | Qualitative |
| | | Conductor Resistance Test | IS 398 (Part 2): 1996 (RA 2002) IS 10810 (Part 5): 1984 | 0.2 $\mu\Omega$ to 11 Ω |
| | | Measurement of Lay Ratio/ Direction of Lay | IS 398 (Part 2): 1996 (RA 2002) | 1 mm to 300 mm |
| | | Breaking Load test of Individual Aluminium & Galvanized Steel Wire | IS 398 (Part 2): 1996 (RA 2002) | Upto 5000 N |
| | | Ductility Test | IS 398 (Part 2): 1996 (RA 2002) | Upto 150 mm |
| | | Galvanizing Test Uniformity of Zinc Coating | IS 398 (Part 2): 1996 (RA 2002) IS 4826: 1979 | Qualitative |
| | | Mass of Zinc Coating | IS 398 (Part 2): 1996 (RA 2002) IS 6745: 1972 | Upto 400 g/m ² |
| | | Diameter of Aluminium Wire | IS 398 (Part 4): 1994 IS 8130: 1984 | 0.01 mm to 25 mm |
| | | Conductor Resistance Test | IS 398 (Part 4): 1994 IS 10810 (Part 5) 1984 | 0.2 $\mu\Omega$ to 11 Ω |
| | | Measurement of Lay Ratio | IS 398 (Part 4): 1994 | 1 mm to 300 mm |
| | | Breaking Load test of Individual Aluminium Wire | IS 398 (Part 4): 1994 | Upto 5000 N |

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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 |
|---------------|-----------------------------------|--|--|---|
| 10. | Armouring Wires and Strips | Armour Resistance Test | IS 3975: 1984 IS 10810 (Part 42): 1984 | 0.2 $\mu\Omega$ to 1.1 Ω |
| | | Dimension of Armouring Material | IS 3975: 1984 IS 10810 (Part 36): 1984 | 0.01 mm to 150 mm |
| | | Tensile Strength & Elongation at Break of Armouring Material | IS 3975: 1984 IS 10810 (Part 37): 1984 | Upto 5000 N |
| | | Torsion Test on Galvanized Steel Wire for Armouring | IS 3975: 1984 IS 10810 (Part 38): 1984 | Qualitative |
| | | Winding Test on Galvanized Steel Strip | IS 3975 (Part 39): 1984 | Qualitative |
| | | For Armouring Uniformity of Zinc Coating | IS 3975: 1984 IS 10810 (Part 40): 1984 | Qualitative |
| | | Mass of Zinc Coating | IS 3975: 1984 IS 10810 (Part 41): 1984 | Upto 400 g/m ² |
| 11. | Copper Wire | Copper Purity | IS 191: 2007 | Upto 99.99 % |

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