



SPECIFICATION FOR 6-CORE ALUMINIUM POLYSTER SHIELDED TEFLON CABLE FOR INSTRUMENTATION

1. SCOPE

- 1.1 This specification covers the requirements of 6 core aluminium polyester shielded Teflon cable to be used in Railway coaches for communication/ signaling purpose.

2. TECHNICAL REQUIREMENTS

2.1 Conductor

Each core shall have 7 strand of 30 AWG of annealed tinned copper.

2.2 Insulation

Tinned conductor shall be covered with polythlene. The radial thickness of the insulation shall be 0.2mm. The color of core shall be Red, Yellow, Blue, Green, Black and White.

2.3 Sheathing

Protective Teflon jackets shall be provided as sheath. The radial thickness of the sheath shall be 0.4mm. The overall diameter of the cable shall be 7.5mm.

2.4 Conductor resistance

The DC resistance of the conductors (corrected at 20 deg.C) shall not exceed 49.2 Ohms/KM.

2.5 Nominal capacitance

- i) Capacitance between conductors of the same pair shall not be more than 75 pf/Meter.
- ii) The capacitance between conductor and other conductor with all other conductors connected to the shield shall not be more than 131 pf/Meter.

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2.6 Laying up and screening

The conductor combination for two individual pair to be shielded, shall be Red-Black, Blue-White, and Yellow-Green under Aluminium polyester shield pairs shall be laid up and taped to make the cable reasonably circular. Shield coverage shall be 100%.

3. TESTS

3.1 High voltage test

The cable shall withstand in the dry state an AC voltage of 1500V RMS as per IS:694 (Pt-I) latest.

3.2 Insulation resistance test

The cable shall be meet the requirements of the insulation resistance as per the test specified in IS:694 (Pt-I) latest.

3.3 Flammability test

This test to be conduct as an acceptance test as per IS:10810 (Pt-53) latest.

4. APPROVAL

4.1 All supplies shall be made directly from original manufacturers of cables. Offers received from dealer shall not be acceptable.

4.2 A 10 meter length of cable shall be got approved before the supply is made.

5. WARRANTY

The supplier shall give guarantee of 18 months from the date of supply or 12 months from the date of commissioning whichever is earlier. Any defect noticed during this period due to defective design, material or workmanship shall be replaced by the supplier free of cost.

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