



IS 7098 Part 2:2011

CROSSLINKED POLYETHYLENE INSULATED THERMOPLASTIC SHEATHED CABLES

The document defines the standard for crosslinked polyethylene (XLPE) insulated, thermoplastic sheathed cables used for medium voltage applications (**3.3 kV to 33 kV**), developed by the Bureau of Indian Standards (BIS) in 2011. This standard, IS 7098 (Part 2): 2011, addresses consumer demands for **reliable and safe electric cables** by setting rigorous quality benchmarks, **ensuring durability, safety, and efficiency in electricity distribution.**

Key quality parameters expected by consumers include **high tensile strength, elongation capacity, insulation resistance, and thermal stability** under operational stress and short-circuit conditions. The standard specifies the materials (copper or aluminum) and construction techniques for conductors, insulation, screening, and sheathing. Additionally, it sets protocols for rigorous testing, covering routine, type, and acceptance tests to validate mechanical and electrical properties.

To meet consumer expectations, the standard aligns with international norms, incorporating testing methods for properties such as **aging, water absorption, flammability, and partial discharge, Volume Resistivity.** Special attention is given to fire-resistant cables in confined spaces (categorized as C1 and C2) with reduced halogen and smoke emissions to enhance safety during fire incidents.

In summary, IS 7098 (Part 2): 2011 ensures that XLPE insulated cables for medium voltage are **safe, reliable, and meet consumer expectations** for **performance and safety** by specifying quality controls and standardized testing procedures for cable manufacturers.