IS 9968 (Part 2) : 2002 – Specification for Elastomer Insulated Cables
Part 2 – For working Voltages from 3.3kV up to and Including 33kV

Elastomer insulated cables are electrical cables that use elastomer materials, such as rubber or thermoplastic elastomers, for their insulation. Elastomers fall under the category of **thermosetting materials** that are used for **insulation** and sheathing of electric cables. The advantage of use of elastomeric material is its ability to return rapidly to approximately its initial shape after substantial deformation at room temperature by a weak stress and release of that stress. They are commonly used in **industrial**, **automotive**, and **consumer electronics**, as these cables are ideal for applications requiring **high flexibility and durability.**

In Electric Cables, insulation properties and mechanical durability play an important role, apart from electrical conductivity, in the selection of cables. While **flexibility**, **thermal resistance**, **resistance** to water, oil and other environmental factors are crucial for insulation properties, **strength of the insulating material**, resistance to abrasion and **mechanical wear** are important factors that guides the consumer in choosing the right kind of cable.

Indian Standard 9968 (Part 2) covers the requirements of **heat resisting elastomer insulated cables** for **fixed installations** and **flexible cables** for single phase or three phase system, suitable for voltage (Uo/U) 1.9/3.3, 3.8/6.6, 6.35/11, 12.7/22 and 19/33 kV for **electricity supply** purposes. These cables are suitable for use where combination of ambient temperature and temperature rise due to load results in conductor temperature not exceeding 90°C under normal operation and 250°C under short circuit conditions.

The standard specifies **Insulation Resistance test, Partial Discharge test, Bending test followed by Partial Discharge Test, High Voltage Test, Water Absorption Test, Flammability test** and specific test for Conductor and Insulation material properties to ascertain the quality of the cable.