**IS 9968 (Part 1) : 1988 – Specification for Elastomer Insulated Cables**
**Part 1 – For working Voltages up to and Including 1100V**

**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 1) covers three types of elastomeric insulation based on their normal continuous operating temperature. While **elastomer insulation for general purpose** is meant for normal continuous operation at 60 $^{0}$C, **heat resisting insulation** and **silicon rubber insulation** are meant, respectively for, 90 $^{0}$C and 150 $^{0}$C. The cables covered in this standard are suitable for use on single phase or three phase a.c. systems where working voltage is up to and including 1100V, or on d.c. systems with rated voltages up to and including 1500V to earth.

The standard specifies **Insulation Resistance test, High Voltage Test, Water Absorption Test, Flammability test** and specific test for Conductor as well as Insulation and Sheath material properties to ascertain the quality of the cable.