



IS 9537 Part 4: 1983- Specification for Conduits for Electrical Installations: Pliable Self - Recovering Conduits of Insulating Materials

A pliable conduit is a **flexible, bendable pipe** that's used to protect and route electrical wires and cables. Pliable conduits are made from durable material like plastic or metal and are designed for installation in places where rigid conduits are not practical. They are capable of bending easily without breaking, allowing them to bend and fit around obstacles making them the perfect solution to any situation where movement and flexibility is needed. Not only does pliable conduits protect wires and reduces the risk from hazards including electrocution, they also protect wiring and cables from pets or animals who may try and chew through them.

IS 9537 Part 4: 1983 specifies requirements and methods of tests for **pliable self-recovering plain and corrugated conduits** of insulating materials for electrical installations. These conduits covered in this standard are **non-flame propagating** and **non-threadable**.

The conduits are classified as very light, light and medium on the basis of their ability to withstand **mechanical stresses**. The standard specifies the dimensions like nominal size, outside diameter, tolerance and inside diameter of the conduits.

The conduits covered in this standard must adhere to the general construction guidelines outlined in **IS 9537 Part 1: 1980**. These conduits must meet the electrical requirements and be able to withstand various external influences given in the standard. They must pass a series of tests such as **Bending Test, Compression Test, Impact Test and Collapse Test** to ensure their mechanical strength. The standard also defines two other tests namely **Resistance to Heat and Resistance to Burning** to ensure the quality and safety of the conduits in electrical installations.

Each conduit length is required to be **marked** with manufacturer's name or trademark, nominal size, country of manufacture and classification information to provide essential information about its capabilities and intended use. The conduits may also be marked with **BIS Certification Mark**.

In a nutshell, IS 9537 Part 4: 1983 aims to ensure the **quality and safety of pliable self-recovering conduits** used in electrical installations. The standard outlines comprehensive requirements for various aspects of the conduits including their dimensions, construction, mechanical properties, resistance to heat and burning, and electrical characteristics. Adherence to this standard is crucial for both manufacturers and users to ensure the reliability and safety of electrical installations.