



Summary of IS 13703 : Part 2 : Sec 1 : 1993 – Low-Voltage Fuses for Use by Authorized Personnel

The Indian Standard **IS 13703 : Part 2 : Sec 1 : 1993** outlines supplementary requirements for **low-voltage fuses** designed to protect **electrical circuits up to 1,000 V AC or 1,500 V DC**. These fuses, intended for use by **authorized personnel**, are commonly found in industrial and commercial applications where **safe overcurrent protection** and **circuit reliability** are essential. These fuses are crucial in protecting equipment and personnel from the dangers of electrical faults, including overcurrents that can cause fires or equipment failure.

To ensure high-quality performance, low-voltage fuses provide durable protection, fast response to overcurrents, and high breaking capacity to ensure minimal damage during overloads or short circuits. Key quality attributes sought by users include thermal stability, high current ratings, and reliability under varying conditions. For safe handling, it's crucial that these fuses have clear markings indicating rated capacity and other safety-critical properties.

IS 13703: Part 2: Sec 1: 1993 addresses these expectations by detailing the **mechanical, thermal, and electrical requirements** for fuse elements and holders, including **fuse-link classification, time-current characteristics, rated breaking capacities, and power dissipation limits**. The standard specifies **material durability**, testing protocols, and safety measures that confirm a fuse's performance across a range of operational conditions. For instance, it includes verification tests for **resistance to heat and mechanical strength** to ensure the fuse remains functional and secure after extended use.

In summary, **IS 13703: Part 2: Sec 1: 1993** establishes a framework that ensures low-voltage fuses offer dependable protection in low-voltage installations, emphasizing safety and reliability. The BIS standard mark on these fuses assures users of their compliance with IS 13703: Part 2: Sec 1: 1993, providing confidence in their safety and quality.