



## **IS 15652 - Insulating Mats for Electrical Purposes**

The Indian Standard IS 15652:2006 establishes the requirements for **insulating mats** used in electrical environments, aiming to ensure safety during operations conducted near live electrical equipment. This standard provides a detailed framework for the **quality, manufacturing, testing, and marking** of insulating mats, which serve as a critical protective measure against electrical shock hazards in both alternating current (AC) and direct current (DC) installations with system voltages up to **33 kV AC and 240 V DC**.

The mats are classified according to **resistance to acid, alkali, oil, and low temperatures** into **Categories I, II, and III**. They are further distinguished by **thickness classes** (A, B, C, and D), each specifying the **minimum thickness, mechanical properties** (such as tensile strength and elongation), and **electrical properties** (such as insulation resistance with water, AC dielectric strength, and leakage current). Rigorous testing is conducted to ensure these mats meet the necessary mechanical properties and show resistance to aging, acid, alkali, and flame, thus guaranteeing reliability across various conditions over extended use.

The **packaging and marking requirements** include clear labeling of the **Class, Category and thickness, Lot No, Roll No and Manufacturer's identity**. Lot numbers help in traceability of the product in the market.

**IS 15652** is a crucial standard for electrical safety, designed to align with international standards and safety regulations, helping safeguard workers and equipment in electrical installations across India.