



## **Indian Standard IS 10079: 1982 - Specification for Cylindrical Metal Measures for Use in Tests of Aggregates and Concrete**

The Indian Standard outlines the **specifications for cylindrical metal measures** used in testing aggregates and freshly mixed concrete. These measures are essential tools in **determining bulk density, void content of aggregates, and assessing key properties** of concrete, such as weight per cubic meter, yield, cement factor, and gravimetric air content. By providing standard specifications, this Indian Standard ensures that tests yield **consistent and reproducible results**, which are critical for quality control in civil engineering projects.

The standard specifies cylindrical measures of **capacities 3, 10, 15, 20, and 30 litres**, made from **mild steel**, chosen for its durability and resistance to wear. Each measure is designed to be **water-tight** and machined for precise internal dimensions. The larger measures (15 litres and above) are reinforced at the top edge with a metal band to enhance structural rigidity. The **dimensions and tolerances** for each size are clearly defined, ensuring accuracy and uniformity in testing.

The document also describes the **accessories required**, including tamping rods and tamping bars, which are made from mild steel and are used to compact the aggregates during testing. The **tamping rod** has a rounded end to avoid damaging the sample, while the tamping bar features a square face for effective compaction.

Each cylindrical metal measure must be **indelibly marked** with the manufacturer's name or trademark, along with the date of manufacture, ensuring proper identification and traceability. Measures may also feature the **ISI Certification Mark**, signifying compliance with the quality standards set by the Bureau of Indian Standards.

The standard provides a **comprehensive framework** for the design and use of cylindrical metal measures, supporting the reliable testing of aggregates and concrete, and contributing to the overall quality and safety of construction materials in civil engineering.