

STRIPPING VALUE APPARATUS

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The Stripping Value Apparatus is a specialized testing device used in civil engineering and materials science, particularly for evaluating the adhesion properties of bituminous (asphalt) mixtures with aggregates in road construction. It measures the stripping value, which quantifies the resistance of the bitumen coating on aggregates to being stripped away by water. This test is crucial for assessing the durability of asphalt pavements, as poor adhesion can lead to moisture-induced damage like potholes or surface cracking.

FOLLOWING STANDARD

IS 6241-1971

PURPOSE OF THE TEST

- **Definition of Stripping Value:** It is the ratio of the uncovered (stripped) area of aggregates to the total surface area, expressed as a percentage. Lower values indicate better adhesion and higher resistance to stripping.
- **Why It Matters:** Bitumen adheres well to clean, dry aggregates, but water can cause "stripping" (disbanding), reducing pavement life. The test helps select suitable aggregates and anti-stripping additives (e.g., amines or lime).

KEY COMPONENTS OF THE APPARATUS

- **Rotating Tray/Disc:** A circular stainless steel tray or disc that rotates in a vertical plane at approximately 100-120 RPM. It holds 4 glass or heat-resistant bottles (capacity 400-500 ml each), mounted at 90° angles with mouths facing the center for even agitation.
- **Bottles/Beakers:** 500 ml heat-resistant glass beakers or bottles to hold the aggregate-bitumen-water mixture.
- **Motor and Drive:** Electric motor for rotation, often with a speed controller.
- **Timer:** A time switch for precise agitation duration (15 minutes).
- **Power Supply:** Operates on 230V AC single phase.

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