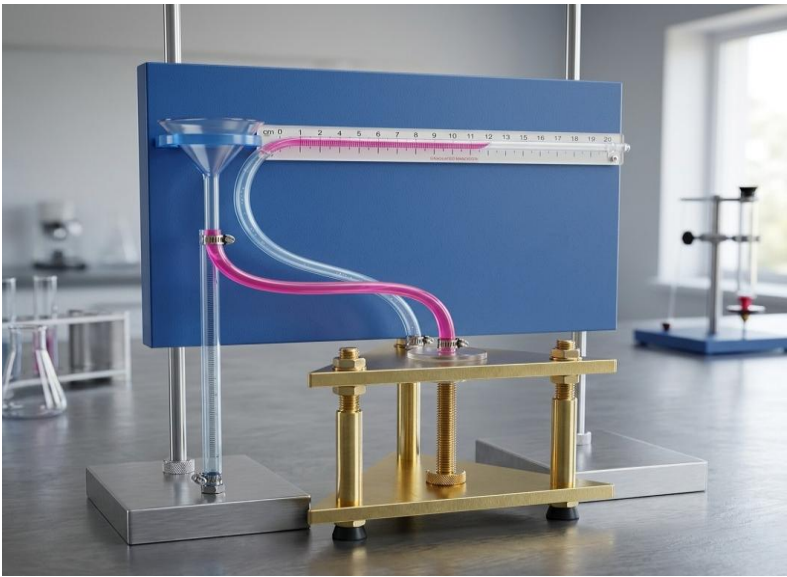


ISAT Equipment

Initial Surface Absorption Test Apparatus — Concrete Surface Permeability Testing



GENERAL INFORMATION

Equipment Name	ISAT Equipment
Full Form	Initial Surface Absorption Test Apparatus
Application	Determination of the rate of water absorption in concrete surfaces
Test Method	Measurement of surface permeability of hardened concrete
Standards Compliance	BS 1881: Part 208 – Recommendations for the measurement of surface water absorption of concrete; BS EN 13057 (where applicable)

EQUIPMENT DESCRIPTION

The ISAT apparatus is used to measure the rate of flow of water into the surface of concrete under a constant head at specified time intervals.

MAIN COMPONENTS

1. ISAT Test Head Assembly

- Transparent cap / cylinder
- Internal diameter: Approx. 50 mm
- Sealing ring: Neoprene rubber gasket
- Clamping frame with tightening screws

2. Water Reservoir System

- Graduated glass capillary tube
- Water column / burette
- Stand with adjustable height
- Constant head arrangement

3. Base Plate / Clamping Frame

- Rigid metallic frame
- Adjustable tightening mechanism
- Leak-proof sealing system

TECHNICAL SPECIFICATIONS

Test Head Diameter	~50 mm
Water Head	200 mm (standard)
Measurement Intervals	10 / 30 / 60 / 120 minutes
Measurement Unit	ml/m²/sec
Capillary Tube Graduation	Fine graduated scale for accurate readings

CONSTRUCTION DETAILS

Frame	Powder-coated mild steel
Test Cap	Transparent acrylic
Seals	Oil- and water-resistant rubber
Tubing	Flexible, non-reactive material

OPERATING PRINCIPLE

- The test head is sealed to the concrete surface
- Water is applied under constant head pressure
- The rate of water absorption is measured by observing the movement of water in the capillary tube over time

SURFACE FINISH & DURABILITY

- Corrosion-resistant structure
- Leak-proof assembly
- Smooth machined contact surface

SAFETY FEATURES

- Stable base stand
- Secure clamping mechanism
- Non-breakable protective housing (optional)

APPLICATION AREAS

- Concrete durability testing laboratories
- Highway and bridge projects
- Precast concrete plants
- Research and quality control laboratories

Specifications are subject to change without prior notice. For quotations, drawings, or technical clarification, please contact Falcon Core Industries L.L.C.