

Department Of Civil Engineering

CONCRETE TECHNOLOGY LABORATORY

Concrete technology provides information on concrete and its properties, mix design, cracking, durability, high strength, prestressed concrete, fresh concrete, hard concrete, ready mix, scc, special type of concrete, sulphate attack etc.



List of Experiment:-

- # Effect of w/c ratio on workability (slump cone, compaction factor, V-B test, flow table)
- # Effect of w/c ratio on strength of concrete.
- # Mix design in laboratory..
- # Modulus of rupture of concrete
- # Study of admixtures and their effect on workability and strength of concrete
- # Secant modulus of elasticity of concrete and indirect tensile test on concrete.
- # Permeability test on concrete..
- # Rapid chloride penetration test
- # Tests on polymer modified concrete/mortar.
- # Tests on fiber-reinforced concrete.
- # Non destructive testing of concrete- some applications (hammer, ultrasonic)
- # Water absorption and compressive strength test of bricks.
- # Water absorption and transverse load test on tiles.
- # Moisture content and flexural strength test on timber.
- # Compression test on timber (Parallel/ perpendicular to the grains).
- # Physical properties of cement: Fineness, consistency, setting time, Soundness, Compressive strength.
- # Compression test on Paver blocks.
- # Water absorption, density and compression test on masonry blocks.
- # Abrasion test on tiles

List of Instruments:-

-  **Compaction Factor**
-  **Vee-Bee Consistometer**
-  **Density Basket**
-  **Buoyancy Balance or Specific Gravity And Water Absorption Of Aggregate**
-  **Rebound Hammer- Analog Type: Controls, Italy**
-  **Slump Test Apparatus**
-  **Tile Flexural Strength Testing Machine**
-  **Blaine's Air Permeability Apparatus**
-  **Bulk Density Apparatus**
-  **Flow Table:- MS Steel, Motorized**
-  **Concrete Permeability Apparatus**
-  **High Temperature Convection Oven**
-  **Laboratory Concrete Mixer (Motorized)**
-  **Vibrating Table**
-  **Flexure Testing Machine**
-  **Compressive Strength Machine -300T digital**
-  **Tile Abrasion Testing Machine**
-  **Le-Chatelliers Apparatus**

Instruments Picture:-

Compressive Strength Testing Machine



Vee - Bee Consistometer



Flexural Testing Machine



Tile Abrasion Testing Machine



Concrete Mixer



Concrete Permeability Test Apparatus



Specific Gravity Balance



Mould Vibrator



Compaction Factor Apparatus



Sieve Shaker



Table Vibrator



Tile Flexural Testing Machine

