

Brick Testing

- **Water Absorption:**

The amount of water that a brick can absorb is measured by the water absorption test. There is no distinct relationship between water absorption and the water-tightness of walls. The results of water absorption tests are used by the brick manufacturer for quality assurance.

Test Method: IS: 3495 (P-2)1992

- **Compressive Strength**

This test helps in determining the Compressive Strength of bricks to be used for construction of load bearing walls.

Test Method: IS: 3495 (P-1)1992

- **Efflorescence**

This test helps in determining accumulation of minerals and salts on Brick surfaces.

Test Method: IS: 3495 (P-3)1992

- **Permanent Linear Change:**

This test helps in determining the permanent linear change of refractory brick when heated under prescribed conditions, which will measure any potential shrinking when used for load bearing walls.

Test Method: IS: 1528 (P-6)1974

- **Abrasion Resistance:**

The abrasion resistance of a refractory material provides an indication of its suitability for service in abrasion or erosive environments.

Test Method: IS: 5688-1982

- **Apparent Porosity and Density:**

This test helps in determining the porosity and density of bricks to be used for construction of load bearing walls. The method involves dimensional measurement and mass to determine density, followed by measuring the increase in mass when soaked in water for a standard period.

Test Method: IS: 1528 (P-8,9)1974

- **Creep Test:**

Creep in compression (CIC) refers to the percent of shrinkage of a refractory test piece under a constant load and exposed to a constant high temperature over a long period of time.

Test Method: IS: 1528 (P-18) 1993

- **Modulus of Rapture:**

The modulus of rupture (MOR) is the maximum surface stress in a bent beam at the instant of failure. One might expect this to be exactly the same as the strength measured in tension, but it is always larger because the volume subjected to this maximum stress is small, and the probability of a large flaw lying in the highly stressed region is also small.

Test Method: IS: 1528 (P-15)1991, IS: 1528 (P-5)1993

- **Fly ash / Lime Brick:**

This test helps in determining the strength of brick.

Test method: IS: 13757 / IS: 12894