



Your Trusted Partner in Comprehensive Testing Solutions for Construction and Infrastructure Projects

Established in 1973, TCR Engineering brings over five decades of experience in materials testing, non-destructive testing (NDT), and asset integrity management for construction and infrastructure projects.

TCR Engineering Services is a leading provider of Material Testing services, with over 50 years of experience and a proven track record of success across India. As a NABL-accredited (ISO 17025) organization, we adhere to the highest quality standards, including those set by the Indian Roads Congress (IRC) and international benchmarks, ensuring precise and reliable testing.

Our Civil Testing Capabilities

New Construction Civil Testing

Cement and Cementitious material (IS 4031 & IS 4032) Physical Testing - Consistency, Setting Time, Strength, Soundness, fineness) & Chemical Testing- LOI, SO₃, chloride, Insoluble Residue

Pozzolana (Flyash & Microsilica) IS 1727 / GGBFS (IS16714) Physical Testing - Strength, Soundness, Activity Index) & Chemical Testing- LOI, SiO₂, chloride, Insoluble Residue

Grout /Jointing Mortar/ Ready Mix Plaster (EN 13888/ EN 1015/ IS 2250) Flow, Bulk Density, Compressive Strength)

Tile Adhesive (IS 15477) Pot life, Shear Strength, Tensile Strength, Deformation

Block (AAC/ Solid/Hollow) IS 2185 Dimension, Compressive Strength

Brick (IS 3495/IS 1077/ IS12894) Dimension, Compressive Strength, Water Absorption

Aggregate (Coarse/Fine) (IS2386) Physical Testing - Sieve Analysis, specific Gravity, Water Absorption & Chemical Testing - Soundness by Na₂SO₄, SO₃, chloride, Organic Impurity

Gypsum Plaster IS 2547: Part -1 Physical Testing-Consistency, Setting Time, Compressive Strength, Soundness & Chemical Testing - LOI, SO₃, Free lime

Admixture (IS 9103) Physical- Workability, strength & Chemical- pH, Chloride, Marsh Cone Test, Dry Material, Density

Bipolar Admixture (IS 9103 , JIS Z 1535) Appearance, pH, Skin irritation, Accelerated Corrosion Test

Construction Water / Drinking Water (IS 456 / IS 10500) pH, Conductivity, Acidity, Alkalinity, Chlorides, SO₃ ,

Reinforcement TMT bar IS 1786 Physical - Tensile, Bend, Rebend Chemical - Carbon, Sulphur, phosphorous

Mix Design (IS 10262)
Different Grade of design M10 to M80

Building Finishing Works Testing

Tile (IS 13630/IS 15622) Dimension, Flatness, Water Absorption, Modulus of rupture, Thermal Shock, Thermal Expansion, Coefficient of Friction, Impact Resistance Cracking resistance

Granite / Marble (IS 1123/IS1124/IS14223) Water absorption, Moh Hardness, Specific gravity

Plywood (IS 1734) Dimension, Moisture Content, Glue Shear Strength, Tensile Strength, Static Bending, Modulus of Rupture

Wooden Door Frame (IS 287/ IS 11215) Moisture Content, Density & Dimension

Gypsum Board (IS 2095) Physical Testing- Dimension, Transverse Strength

Precast Concrete Pipes (IS 3597) Dimension, Hydrostatic Test

Precast Man Hole Cover (IS 12592 / EN 124) Dimension Test, Load Test, Permanent Set Test

Cover Block (IS 456) Dimension, Compressive Strength

Aluminum Sections (BS 573, IS 13871 and IS 101) Physical Testing-Tensile, Weight per Meter & Chemical Testing - Mg, Si, Mn, Fe, Cu, Zn, Ti, Cr, Al

Glass (IS 2553, IS 17004) Dimension, Surface compression

Chequered/Plain Concrete Tile (IS 1237 / IS 13801) Dimension, Water Absorption, Resistance to wear, Transverse Strength

Fiber Cement Board (IS 14862) Dimension, Modulus of rupture, Density

Door Shutter (IS 4020) Dimension, Impact Indentation Test, Edge Loading, Slamming, Glue adhesion

Advance Testing

Durability Testing of Concrete RCPT (ASTM C1202), Water permeability (BS 1881), Water absorption (BS 1881:Part 122), Initial Surface Absorption Test (ISAT) (BS 1881- Part 208)

Soil Testing (IS 2720) Liquid Limit, Plastic limit, Sieve Analysis, California Bearing Ratio, Maximum Dry Density, Optimum Maximum content

Rock Testing (IS 13030) Compressive Strength, Water Content, Specific Gravity, Density, Porosity

Structural Audit Ultrasonic Pulse Velocity Test, Rebound Hammer Test, Underwater NDT : Rebound Hammer & Ultrasonic Pulse Velocity, Half - Cell Potential, Carbonatio Depth, Concrete Pull - Out Test, Concrete Core Testing

Geotechnical Services Soil drilling with Auto - SPT and undisturbed sampling with different diameter borehole, Field California Bearing Ratio Test

Pile Load testing Plate Load Test Lateral Dynamic Pile Load Test

Temperature Monitoring of Fresh Concrete as per ASTM C 1064



With over five decades of expertise, TCR Engineering is the trusted partner for material testing, civil inspection, and infrastructure assurance. As a NABL-accredited laboratory, we work with construction, real estate, and infrastructure leaders who demand precision, reliability, and full compliance with national and international standards. From cement, concrete, and soil to reinforcement bars, admixtures, water, tiles, blocks, adhesives, glass, plywood, and precast components-we test every material that holds your project together.

Our capabilities span the entire spectrum: concrete durability tests, soil classification and load testing, detailed analysis of reinforcement steel, and validation of finishing materials including gypsum boards, tile adhesives, and door shutters. We offer non-destructive structural audits and specialize in underwater robotic NDT-having successfully completed over 400 bridge inspections across Maharashtra. Our contribution to the Mumbai Metro Project is a testament to our commitment to safety-driven, high-performance testing. Leading developers such as Godrej Projects, Kalpataru, and Rustomjee rely on us to safeguard the quality of their most critical assets.

To make testing seamless, we offer free sample pickup from construction sites across Mumbai, ensuring speed and convenience without compromising on accuracy.

At TCR, we don't just test materials-we test possibilities. Every result we deliver reinforces not just safety, but intent. Because in construction, as in design, "it's not just about how it looks-it's about how it works." And we make it work-accurately, reliably, and from the ground up.

Laboratory and Research Center

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