

GEOTECH STRUCTURAL & MATERIALS
Testing Labs

Company Profile

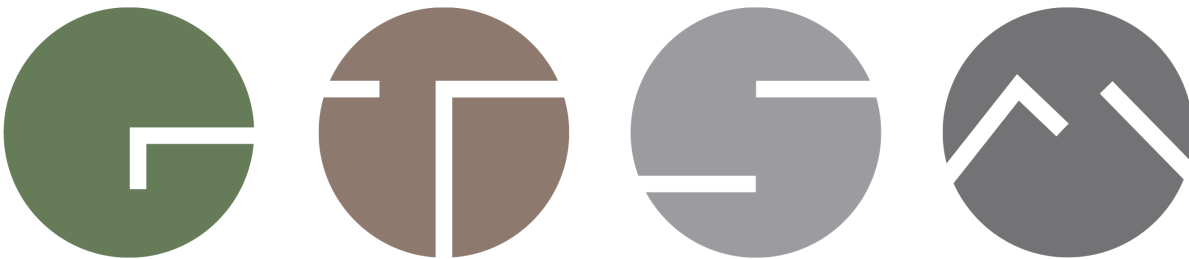




About Us

Founded by Praful Anandjiwala, now led by Yash Shah

GTSM Testing Labs LLP is a **civil engineering testing laboratory** dedicated to supporting various construction and infrastructure projects.



GEOTECH STRUCTURAL & MATERIALS

Testing Labs



Construction Material Testing

What it is

Laboratory testing of construction materials such as cement, aggregates, concrete cubes, bricks, AAC blocks, paver blocks, and tiles used in building works.

Why it is done

To verify material strength, durability, and compliance with specifications before use in construction.

Relevant IS Codes:

IS 4031 – Cement testing | **IS 2386** – Aggregate testing | **IS 516** – Concrete testing
IS 3495 – Brick testing | **IS 6441** – AAC block testing | **IS 15658** – Paver block testing





Steel and Metal Testing

What it is

Mechanical testing of reinforcement steel and metal materials including tensile strength, yield strength, elongation, bend test, and re bend test.

Why it is done

To confirm that reinforcement steel used in structural elements meets strength and ductility requirements.

Relevant IS Codes:

IS 1608 – Tensile testing of metals | **IS 1786** – Reinforcement steel specification
| **IS 1599** – Bend and re bend test





Non Destructive Testing (NDT)

What it is

Evaluation of concrete strength and structural condition using tests that do not damage the structure.

Why it is done

To assess in situ concrete quality and detect variations in structural performance without removing material.

Relevant IS Codes:

IS 13311 Part 1 – Ultrasonic Pulse Velocity | **IS 13311 Part 2** – Rebound Hammer Test





Geotechnical Investigation and Soil Testing

What it is

Subsurface investigation carried out through borehole drilling, soil sampling, Standard Penetration Test (SPT), and plate load testing to understand soil conditions below the ground surface.

Why it is done

To determine soil bearing capacity, settlement characteristics, and engineering properties required for safe foundation design.

Relevant IS Codes:

S 1892 – Subsurface investigation | **IS 2131** – Standard Penetration Test
IS 2720 (Various Parts) – Soil testing methods | **IS 6403** – Bearing capacity of shallow foundations | **IS 1888** – Plate Load Test





Soil and Rock Laboratory Testing

What it is

Detailed laboratory testing of soil and rock samples to determine physical and engineering characteristics.

Why it is done

To evaluate soil behavior under load and determine parameters required for foundation and pavement design.

Relevant IS Codes:

IS 2720 – Soil testing methods | **IS 11227** – Unconfined compressive strength of rock





Soil and Water Chemical Testing

What it is

Chemical analysis of soil and water to determine properties that may affect concrete durability and foundation performance.

Why it is done

To identify corrosive conditions such as sulphates, chlorides, acidity, or alkalinity that may impact structural materials.

Relevant IS Codes:

IS 2720 Part 22 – Organic matter in soil | **IS 2720 Part 26** – Soil pH

| **IS 2720 Part 27** – Sulphates in soil | **IS 3025** – Water chemical testing methods





NABL Accreditation



TC-6629

Ensuring Quality Control and Compliance

Our laboratory maintains **stringent quality control** standards, ensuring reliable and accurate testing in civil engineering projects.





NABL SCOPE



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : GTSM TESTING LABS LLP, G-4, NEWYORK TOWER, THALTEJ CROSS ROAD, AHMEDABAD, GUJARAT, INDIA
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S.No	Discipline / Group	Materials or Products tested	Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed	Test Method Specification against which tests are performed and / or the technology / equipment used
Permanent Testing				
1	MECHANICAL-BUILDING MATERIALS	AC Block	Compressive Strength	IS 6442, Part 5
2	MECHANICAL-BUILDING MATERIALS	AC Block	Density	IS 6442, Part 1
3	MECHANICAL-BUILDING MATERIALS	AC Block	Dimensions - Length, Width and Height	IS 2185 Part 3
4	MECHANICAL-BUILDING MATERIALS	AC Block	Moisture content	IS 6441, Part 1
5	MECHANICAL-BUILDING MATERIALS	Bitumen	Absolute Viscosity	IS 1208 (Part-2)
6	MECHANICAL-BUILDING MATERIALS	Bitumen	Ductility	IS 1208 - Part 1
7	MECHANICAL-BUILDING MATERIALS	Bitumen	Cheerhatic Viscosity	IS 1208 Part 3
8	MECHANICAL-BUILDING MATERIALS	Bitumen	Leak in Mass	IS 9382
9	MECHANICAL-BUILDING MATERIALS	Bitumen	Penetration at 25°C (0.1 mm)	IS 1203
10	MECHANICAL-BUILDING MATERIALS	Bitumen	Softening Point	IS 1205
11	MECHANICAL-BUILDING MATERIALS	Bitumen	Specific Gravity	IS 1202
12	MECHANICAL-BUILDING MATERIALS	Blumhouse Mix	Density	437H D 2726
13	MECHANICAL-BUILDING MATERIALS	Blumhouse Mix	Marshall Flow	437H D 6927
14	MECHANICAL-BUILDING MATERIALS	Blumhouse Mix	Marshall Stability	437H D 6927
15	MECHANICAL-BUILDING MATERIALS	Blumhouse Mix	Specific Gravity	437H D 0243
16	MECHANICAL-BUILDING MATERIALS	Bricks	Compressive strength	IS 3495 Part 1
17	MECHANICAL-BUILDING MATERIALS	Bricks	Dimension - Height	IS 1077
18	MECHANICAL-BUILDING MATERIALS	Bricks	Dimension - Length	IS 1077
19	MECHANICAL-BUILDING MATERIALS	Bricks	Dimension - Width	IS 1077

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20	MECHANICAL-BUILDING MATERIALS	Bricks	Efflorescence	IS 3495 Part 3
21	MECHANICAL-BUILDING MATERIALS	Bricks	Water Absorption	IS 3495 Part 2
22	MECHANICAL-BUILDING MATERIALS	Cement (OPC)	Compressive Strength	IS 4031 Part 6
23	MECHANICAL-BUILDING MATERIALS	Cement (OPC)	Consistency	IS 4031 Part 4
24	MECHANICAL-BUILDING MATERIALS	Cement (OPC)	Density	IS 4031 Part 11
25	MECHANICAL-BUILDING MATERIALS	Cement (OPC)	Final Setting Times	IS 4031 Part 5
26	MECHANICAL-BUILDING MATERIALS	Cement (OPC)	Fineness by Blaine Air Permeability	IS 4031 Part 2
27	MECHANICAL-BUILDING MATERIALS	Cement (OPC)	Initial setting Times	IS 4031 Part 5
28	MECHANICAL-BUILDING MATERIALS	Cement (OPC)	Soundness by Le-chaelier method	IS 4031 Part 3
29	MECHANICAL-BUILDING MATERIALS	Cement (PPC)	Compressive Strength	IS 4031 Part 6
30	MECHANICAL-BUILDING MATERIALS	Cement (PPC)	Consistency	IS 4031 Part 4
31	MECHANICAL-BUILDING MATERIALS	Cement (PPC)	Density	IS 4031 Part 11
32	MECHANICAL-BUILDING MATERIALS	Cement (PPC)	Final Setting Times	IS 4031 Part 5
33	MECHANICAL-BUILDING MATERIALS	Cement (PPC)	Fineness by Blaine Air Permeability	IS 4031 Part 2
34	MECHANICAL-BUILDING MATERIALS	Cement (PPC)	Initial setting times	IS 4031 Part 5
35	MECHANICAL-BUILDING MATERIALS	Cement (PPC)	Soundness by Le-chaelier method	IS 4031 Part 3
36	MECHANICAL-BUILDING MATERIALS	Cement Concrete Cube	Compressive strength	IS 516
37	MATERIALS	Ceramic Tiles	Compressive (Length)	IS 13630 Part 1
38	MATERIALS	Ceramic Tiles	Dimension (Thickness)	IS 13630 Part 1
39	MATERIALS	Ceramic Tiles	Dimension (Width)	IS 13630 Part 1

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40	MECHANICAL-BUILDING MATERIALS	Ceramic Tiles	Water Absorption	IS 13630 Part 2
41	MECHANICAL-BUILDING MATERIALS	Ceramic Tiles	Bulk Density	IS 2386 Part 3
42	MECHANICAL-BUILDING MATERIALS	Ceramic Tiles	Cushing Value	IS 2386 Part 4
43	MECHANICAL-BUILDING MATERIALS	Ceramic Tiles	Elongation Index	IS 2386 Part 1
44	MECHANICAL-BUILDING MATERIALS	Ceramic Tiles	Flatness Index	IS 2386 Part 1
45	MECHANICAL-BUILDING MATERIALS	Ceramic Tiles	Impact Value	IS 2386 Part 4
46	MECHANICAL-BUILDING MATERIALS	Ceramic Tiles	Los Angeles Abrasion Value	IS 2386 Part 4
47	MECHANICAL-BUILDING MATERIALS	Ceramic Tiles	Stove Analysis / Gradation of Aggregate (80 mm, 63 mm, 45 mm, 40 mm, 31.5 mm, 25 mm, 20 mm, 16 mm, 12.5 mm, 10 mm, 6.3 mm, 4.75 mm)	IS 2386 Part 1 Clause No 3
48	MECHANICAL-BUILDING MATERIALS	Ceramic Tiles	Specific Gravity	IS 2386 Part 3
49	MECHANICAL-BUILDING MATERIALS	Ceramic Tiles	Water Absorption	IS 2386 Part 3
50	MATERIALS	Fine Aggregate	Material Finer Than 75 micron	IS 2386 Part 1 Clause No 3
51	MECHANICAL-BUILDING MATERIALS	Fine Aggregate	Stove Analysis (80 mm, 4.75 mm, 2.36 mm, 1.18 mm, 600 micron, 75 micron)	IS 2386 Part 1
52	MECHANICAL-BUILDING MATERIALS	Fine Aggregate	Specific Gravity	IS 2386 Part 3
53	MECHANICAL-BUILDING MATERIALS	Fine Aggregate	Water absorption	IS 2386 Part 3
54	MECHANICAL-BUILDING MATERIALS	Hardened Concrete	Density	IS 516 Part 2, Sec 31
55	MECHANICAL-BUILDING MATERIALS	Paver Blocks	Compressive Strength	IS 15658
56	MECHANICAL-BUILDING MATERIALS	Paver Blocks	Abrasion Resistance	IS 15658
57	MATERIALS	Paver Blocks	Dimensions (Length)	IS 15658

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58	MECHANICAL-BUILDING MATERIALS	Paver Blocks	Dimensions (Thickness)	IS 15658
59	MECHANICAL-BUILDING MATERIALS	Paver Blocks	Dimensions (Width)	IS 15658
60	MECHANICAL-BUILDING MATERIALS	Paver Blocks	Water Absorption	IS 15658
61	MECHANICAL-BUILDING MATERIALS	Reinforcement Steel	Bend test Mandrel Diameter of 16, 22, 24, 30, 32, 36, 40, 46, 50, 60, 66, 72, 86, 98, 100, 112, 125 and 150 mm	IS 1599
62	MECHANICAL-BUILDING MATERIALS	Reinforcement Steel	Elongation	IS 1608 Part 1
63	MECHANICAL-BUILDING MATERIALS	Reinforcement Steel	Mass per meter	IS 1786
64	MECHANICAL-BUILDING MATERIALS	Reinforcement Steel	4-Point Test Mandrel Diameter of 16, 22, 24, 30, 32, 36, 40, 46, 50, 60, 66, 72, 86, 98, 100, 112, 125 and 150 mm	IS 1786
65	MECHANICAL-BUILDING MATERIALS	Reinforcement Steel	Ultimate Tensile Strength	IS 1608 Part 1
66	MECHANICAL-BUILDING MATERIALS	Reinforcement Steel	Yield Stress	IS 1608 (Part-1)
67	MECHANICAL-BUILDING MATERIALS	Rock	Void Density	IS 13030
68	MECHANICAL-BUILDING MATERIALS	Rock	Total load index	IS 8764
69	MECHANICAL-BUILDING MATERIALS	Rock	Specific Gravity	IS 13030
70	MECHANICAL-BUILDING MATERIALS	Rock	Unconfined Compression Strength	IS 9143
71	MECHANICAL-BUILDING MATERIALS	Rock	Water Content	IS 13030
72	MECHANICAL-BUILDING MATERIALS	Soil	CBR	IS 2720 Part 16
73	MECHANICAL-BUILDING MATERIALS	Soil	Consolidation Test	IS 2720 Part 15
74	MECHANICAL-BUILDING MATERIALS	Soil	Determination of the shear strength parameters of a specimen tested in unconsolidated undrained triaxial compression without the measurement of pore water pressure - Angle	IS 2720 Part 11

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75	MECHANICAL-SOIL AND ROCK	Soil	Determination of the shear strength parameters of a specimen tested in unconsolidated undrained triaxial compression without the measurement of pore water pressure - Cohesion	IS 2720 Part 11
76	MECHANICAL-SOIL AND ROCK	Soil	Direct shear test Angle	IS 2720 Part 13
77	MECHANICAL-SOIL AND ROCK	Soil	Direct shear test Cohesion	IS 2720 Part 13
78	MECHANICAL-SOIL AND ROCK	Soil	True Swell Index	IS 2720 Part 40
79	MECHANICAL-SOIL AND ROCK	Soil	Grain Size Analysis (20 mm to 0.075 mm)	IS 2720 Part 4
80	MECHANICAL-SOIL AND ROCK	Soil	Heavy Compaction MDD	IS 2720 Part 8
81	MECHANICAL-SOIL AND ROCK	Soil	Heavy Compaction OMC	IS 2720 Part 8
82	MECHANICAL-SOIL AND ROCK	Soil	Light Compaction MDD	IS 2720 Part 7
83	MECHANICAL-SOIL AND ROCK	Soil	Light Compaction OMC	IS 2720 Part 7
84	MECHANICAL-SOIL AND ROCK	Soil	Liquid Limit	IS 2720 Part 5
85	MECHANICAL-SOIL AND ROCK	Soil	Permeability (By Falling head method)	IS 2720 (Part-17)
86	MECHANICAL-SOIL AND ROCK	Soil	Plastic Limit	IS 2720 Part 5
87	MECHANICAL-SOIL AND ROCK	Soil	Shrinkage Limit	IS 2720 Part 6
88	MECHANICAL-SOIL AND ROCK	Soil	Specific Gravity	IS 2720 Part 3 sec 1
89	MECHANICAL-SOIL AND ROCK	Soil	Swelling Pressure	IS 2720 Part 3
90	MECHANICAL-SOIL AND ROCK	Soil	Unconfined Compression Strength	IS 2720 (Part-10)
91	MECHANICAL-SOIL AND ROCK	Soil	Water Content	IS 2720 Part 2

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92	NON-DESTRUCTIVE BUILDING MATERIALS AND STRUCTURES	Reinforcement Concrete Structure	Rebar Location / Cover Meter Test	IS 1881 Part 204

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Site Testing				
1	MECHANICAL-SOIL AND ROCK	Soil Field Test	Dynamic Cone Penetration	IS 4668 Part-1
2	MECHANICAL-SOIL AND ROCK	Soil Field Test	Field Density by Core cutter method	IS 2720 (Part 19)
3	MECHANICAL-SOIL AND ROCK	Soil Field Test	Field Density by Sand replacement	IS 2720 (Part 20)
4	MECHANICAL-SOIL AND ROCK	Soil Field Test	Plate Load Test	IS 1888
5	MECHANICAL-SOIL AND ROCK	Soil Field Test	Standard Penetration Test	IS 2131
6	MECHANICAL-SOIL AND ROCK	Soil Field Test	Undisturbed sample	IS 2132
7	NON-DESTRUCTIVE BUILDING MATERIALS AND STRUCTURES	Reinforced Concrete Structure	Rebound Hammer	IS 516, Part 5, Sec 4
8	NON-DESTRUCTIVE BUILDING MATERIALS AND STRUCTURES	Reinforced Concrete Structure	Ultrasonic Pulse Velocity	IS 516 Part 5 Sec 1

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APPROVALS



TC-6629



Roads and Buildings Department
Government of Gujarat

સચિવાલય ગાંધી



Lab Machines



Universal Testing Machine (UTM)



Compression Testing Machine (CTM)



Penetration testing apparatus



Oven



Impact Testing Machine





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