National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : AVANT-TECH LAB AND RESEARCH CENTRE PRIVATE LIMITED, UNIT 25 & 26, TTC INDUSTRIAL AREA, PLOT D1, TURBHE, NAVI MUMBAI, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

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Validity 29/11/2021 to 28/11/2023 **Last Amended on** -

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 techniques / equipment used
Permanent Facility				
1	CHEMICAL- BUILDING MATERIAL	Admixture	Ash Content	IS 9103
2	CHEMICAL- BUILDING MATERIAL	Admixture	Chloride	IS 6925
3	CHEMICAL- BUILDING MATERIAL	Admixture	Dry Material Content	IS 9103
4	CHEMICAL- BUILDING MATERIAL	Admixture	pH	IS 9103
5	CHEMICAL- BUILDING MATERIAL	Admixture	Relative Density	IS 9103
6	CHEMICAL- BUILDING MATERIAL	Aggregate	Alkali Aggregate Reactivity (Reduction in Alkalinity)	IS 2386 (Part 7)
7	CHEMICAL- BUILDING MATERIAL	Aggregates	Alkali Aggregate Reactivity (Dissolved Silica)	IS 2386 (Part 7)
8	CHEMICAL- BUILDING MATERIAL	Cement (OPC, PPC, PSC)	Alumina (Al2O3)	IS 4032
9	CHEMICAL- BUILDING MATERIAL	Cement (OPC, PPC, PSC)	Calcium Oxide (CaO)	IS 4032
10	CHEMICAL- BUILDING MATERIAL	Cement (OPC, PPC, PSC)	Chloride	IS 4032
11	CHEMICAL- BUILDING MATERIAL	Cement (OPC, PPC, PSC)	Insoluble Residue (IR)	IS 4032
12	CHEMICAL- BUILDING MATERIAL	Cement (OPC, PPC, PSC)	Iron Oxide (Fe2O3)	IS 4032
13	CHEMICAL- BUILDING MATERIAL	Cement (OPC, PPC, PSC)	Loss On Ignition (LOI)	IS 4032
14	CHEMICAL- BUILDING MATERIAL	Cement (OPC, PPC, PSC)	Magnesium Oxide (MgO)	IS 4032
15	CHEMICAL- BUILDING MATERIAL	Cement (OPC, PPC, PSC)	Potassium Oxide (K2O)	IS 4032
16	CHEMICAL- BUILDING MATERIAL	Cement (OPC, PPC, PSC)	Silicon Dioxide (SiO2)	IS 4032
17	CHEMICAL- BUILDING MATERIAL	Cement (OPC, PPC, PSC)	Sodium Oxide (Na2O)	IS 4032
18	CHEMICAL- BUILDING MATERIAL	Cement (OPC, PPC, PSC)	Sulphur Trioxide (SO3)	IS 4032

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19	CHEMICAL- BUILDING MATERIAL	Coarse and Fine Aggregate	Chloride	IS 4032
20	CHEMICAL- BUILDING MATERIAL	Coarse and Fine Aggregate	SO3	IS 4032
21	CHEMICAL- BUILDING MATERIAL	Fly Ash	Alumina (Al2O3)	IS 1727
22	CHEMICAL- BUILDING MATERIAL	Fly Ash	available Potassium Oxide (K2O)	IS 3812 (Part 1)
23	CHEMICAL- BUILDING MATERIAL	Fly Ash	available Sodium Oxide (Na2O)	IS 3812 (Part 1)
24	CHEMICAL- BUILDING MATERIAL	Fly Ash	Calcium Oxide (CaO)	IS 1727
25	CHEMICAL- BUILDING MATERIAL	Fly Ash	Chloride	IS 4032
26	CHEMICAL- BUILDING MATERIAL	Fly Ash	Iron oxide (Fe2O3)	IS 1727
27	CHEMICAL- BUILDING MATERIAL	Fly Ash	Loss on Ignition (LOI)	IS 1727
28	CHEMICAL- BUILDING MATERIAL	Fly Ash	Magnesium Oxide (MgO)	IS 1727
29	CHEMICAL- BUILDING MATERIAL	Fly Ash	Silicon Dioxide (SiO2)	IS 1727
30	CHEMICAL- BUILDING MATERIAL	Fly Ash	Sulphur Trioxide (SO3)	IS 1727
31	CHEMICAL- BUILDING MATERIAL	Ground Granulated Blast Furnace Slag	Alumina (Al2O3)	IS 4032
32	CHEMICAL- BUILDING MATERIAL	Ground Granulated Blast Furnace Slag	Calcium oxide (CaO)	IS 4032
33	CHEMICAL- BUILDING MATERIAL	Ground Granulated Blast Furnace Slag	Chloride	IS 4032
34	CHEMICAL- BUILDING MATERIAL	Ground Granulated Blast Furnace Slag	Insoluble residue (IR)	IS 4032
35	CHEMICAL- BUILDING MATERIAL	Ground Granulated Blast Furnace Slag	Iron oxide (Fe2O3)	IS 4032
36	CHEMICAL- BUILDING MATERIAL	Ground Granulated Blast Furnace Slag	Loss on inginition (LOI)	IS 4032
37	CHEMICAL- BUILDING MATERIAL	Ground Granulated Blast Furnace Slag	Magnesium oxide (MgO)	IS 4032

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38	CHEMICAL- BUILDING MATERIAL	Ground Granulated Blast Furnace Slag	Manganese oxide (MnO)	IS 4032
39	CHEMICAL- BUILDING MATERIAL	Ground Granulated Blast Furnace Slag	Potassium oxide (K2O)	IS 4032
40	CHEMICAL- BUILDING MATERIAL	Ground Granulated Blast Furnace Slag	Silicon dioxide (SiO2)	IS 4032
41	CHEMICAL- BUILDING MATERIAL	Ground Granulated Blast Furnace Slag	Sodium oxide (Na2O)	IS 4032
42	CHEMICAL- BUILDING MATERIAL	Ground Granulated Blast Furnace Slag	Sulphide Sulphur (S)	IS 4032
43	CHEMICAL- BUILDING MATERIAL	Ground Granulated Blast Furnace Slag	Sulphur trioxide (SO3)	IS 4032
44	CHEMICAL- BUILDING MATERIAL	Gypsum	Calcium Oxide (CaO)	IS 1288
45	CHEMICAL- BUILDING MATERIAL	Gypsum	Free Lime	IS 2547 (Part 1)
46	CHEMICAL- BUILDING MATERIAL	Gypsum	Loss on Ignition (LOI)	IS 2547 (Part 1)
47	CHEMICAL- BUILDING MATERIAL	Gypsum	Soluble Salt Magnesia (MgO)	IS 2547 (Part 1)
48	CHEMICAL- BUILDING MATERIAL	Gypsum	Soluble Salt Sodium (Na2O)	IS 2547 (Part 1)
49	CHEMICAL- BUILDING MATERIAL	Gypsum	Sulphur Trioxide (SO3)	IS1288
50	CHEMICAL- BUILDING MATERIAL	Hardened Concrete	Chloride	IS 14959 (Part 2)
51	CHEMICAL- BUILDING MATERIAL	Hardened Concrete	Sulphur Trioxide (SO3)	BS 1881 (Part 124)
52	CHEMICAL- BUILDING MATERIAL	Silica Fumes	Available Alkali as (Na2O)	IS 15388
53	CHEMICAL- BUILDING MATERIAL	Silica Fumes	Loss on ignition (LOI)	IS 1727
54	CHEMICAL- BUILDING MATERIAL	Silica Fumes	Moisture (MIV)	IS 15388
55	CHEMICAL- BUILDING MATERIAL	Silica Fumes	Silicon Dioxide (SiO2)	IS 1727
56	CHEMICAL- WATER	Construction Purpose Water	Sulphate as SO3	IS 3025 (Part 24)

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57	CHEMICAL- WATER	Construction Purpose Water	volume of 0.02N H2SO4 required to neutralise 100ml of water using mixed indicator (Alkalinity)	IS 456
58	CHEMICAL- WATER	Water for construction purpose	Chloride	IS 3025 (Part 32)
59	CHEMICAL- WATER	Water for construction purpose	Hardness as CaCO3	IS 3025 (Part 21)
60	CHEMICAL- WATER	Water for construction purpose	Inorganic Matter	IS 3025 (Part 18)
61	CHEMICAL- WATER	Water for construction purpose	Organic Matter	IS 3025 (Part 18)
62	CHEMICAL- WATER	Water for construction purpose	pH	Is 3025 (Part 11)
63	CHEMICAL- WATER	Water for construction purpose	Total Dissolve Solid	IS 3025 (Part 16)
64	CHEMICAL- WATER	Water for construction purpose	Total Suspended Solids	IS 3025 (Part 17)
65	CHEMICAL- WATER	Water for construction purpose	Volume of 0.02N NaOH required to neutralize 100 ml of water using phenolphthalein indicator (Acidity)	IS 456
66	MECHANICAL- BUILDINGS MATERIALS	OPC	Normal Consistency	IS 4031 (Part 4)
67	MECHANICAL- BUILDINGS MATERIALS	Aggregate Coarse Aggregate	Aggregate Crushing Value	IS 2386 (Part 4)
68	MECHANICAL- BUILDINGS MATERIALS	Aggregate Coarse Aggregate	Aggregate Impact Value	IS 2386 (Part 4)
69	MECHANICAL- BUILDINGS MATERIALS	Aggregate Coarse Aggregate	Dry Loose Bulk Density (DLBD)	IS 2386 (Part 3)
70	MECHANICAL- BUILDINGS MATERIALS	Aggregate Coarse Aggregate	Dry Rodded Bulk Density (DRBD)	IS 2386 (Part 3)
71	MECHANICAL- BUILDINGS MATERIALS	Aggregate Coarse Aggregate	Sieve Analysis (40mm-2.36mm)	IS 2386 (Part 1)
72	MECHANICAL- BUILDINGS MATERIALS	Aggregate Coarse Aggregate	Specific Gravity (SSD)	IS 2386 (Part 3)
73	MECHANICAL- BUILDINGS MATERIALS	Aggregate Fine Aggregate	Dry Loose Bulk Density (DLBD)	IS 2386 (Part 3)
74	MECHANICAL- BUILDINGS MATERIALS	Aggregate Fine Aggregate	Dry Rodded Bulk Density (DRBD)	IS 2386 (Part 3)
75	MECHANICAL- BUILDINGS MATERIALS	Aggregate Fine Aggregate	Materials Finer than 75 micron	IS 2386
76	MECHANICAL- BUILDINGS MATERIALS	Aggregate Fine Aggregate	Sieve Analysis (10mm-150micron)	IS 2386 (Part 1)

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77	MECHANICAL- BUILDINGS MATERIALS	Aggregate Fine Aggregate	Specific Gravity (SSD)	IS 2386 (Part 3)
78	MECHANICAL- BUILDINGS MATERIALS	Aggregate Fine aggregate	Water Asorption	IS 2386 (Part 3)
79	MECHANICAL- BUILDINGS MATERIALS	Aggregates Coarse Aggregate	Elongation Index	IS 2386 (Part 1)
80	MECHANICAL- BUILDINGS MATERIALS	Aggregates Coarse Aggregate	Flakiness Index	IS 2386 (Part 1)
81	MECHANICAL- BUILDINGS MATERIALS	Aggregates Coarse Aggregate	Water Absorption	IS 2386 (Part 3)
82	MECHANICAL- BUILDINGS MATERIALS	Beam	Flexural Strength	IS 516 (Part 1) : Sec 1
83	MECHANICAL- BUILDINGS MATERIALS	Coarse & Fine Aggregate	Soundness By MgSO4	IS 2386 (Part 5)
84	MECHANICAL- BUILDINGS MATERIALS	Coarse & Fine Aggregate	Soundness By Na2SO4	IS 2386 (Part 5)
85	MECHANICAL- BUILDINGS MATERIALS	Coarse Aggregate	10 Percent Fines	IS 2386 (Part 4)
86	MECHANICAL- BUILDINGS MATERIALS	Concrete Core, Concrete Cube	Initial surface absorption-10min	IS 516 (Part 2) sec 2
87	MECHANICAL- BUILDINGS MATERIALS	Concrete Core, Concrete Cube	Initial surface absorption-30 min	IS 516 (Part 2) Sec 2
88	MECHANICAL- BUILDINGS MATERIALS	Concrete Core, Concrete Cube	Initial surface absorption-30min	BS 1881 (Part 208)
89	MECHANICAL- BUILDINGS MATERIALS	Concrete Core, Concrete Cube	Initial surface absorption-60min	BS 1881 (Part 208)
90	MECHANICAL- BUILDINGS MATERIALS	Concrete Core, Concrete Cube	Initial surface absorption-60min	IS 516 (Part 2) sec 2
91	MECHANICAL- BUILDINGS MATERIALS	Concrete Cube	Water Permeability	BS EN 12390 (Part 8)
92	MECHANICAL- BUILDINGS MATERIALS	Concrete Cube	Water Permeability	IS 516 (Part 2) Sec 1
93	MECHANICAL- BUILDINGS MATERIALS	Concrete Cube , Concrete Core	Rapid Chloride Penetration Test	ASTM C 1202
94	MECHANICAL- BUILDINGS MATERIALS	Concrete Cube , Concrete Core	Water Absorption	BS 1881 (Part 122)
95	MECHANICAL- BUILDINGS MATERIALS	Concrete Cube, Concrete Core	Chloride Migration	NT Build 492

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96	MECHANICAL- BUILDINGS MATERIALS	Concrete Cube, Concrete Core	Initial surface absorption-10min	BS 1881 (Part 208)
97	MECHANICAL- BUILDINGS MATERIALS	Concrete Cube/ Concrete Core/Cylinder	Splitting Tensile Strength of Concrete	ASTM C 496
98	MECHANICAL- BUILDINGS MATERIALS	Concrete Cube/Concrete Core/ Cylinder	Splitting Tensile Strength of Concrete	IS 5816
99	MECHANICAL- BUILDINGS MATERIALS	Cube/cylinder	Compressive Strength	IS 516 (Part 1): Sec 1
100	MECHANICAL- BUILDINGS MATERIALS	Cylinder	Compressive Strength	ASTM C39/C39M
101	MECHANICAL- BUILDINGS MATERIALS	Cylinder	Compressive Strength	IS 516 (Part 1) : Sec 1
102	MECHANICAL- BUILDINGS MATERIALS	Cylinder	Modulus of Elasticity	ASTM C469/C469M
103	MECHANICAL- BUILDINGS MATERIALS	Cylinder	Modulus of Elasticity	IS 516 (Part 8) Sec 1
104	MECHANICAL- BUILDINGS MATERIALS	Cylinder	Poisson’s Ratio of Concrete in Compression	IS 516 (Part 8) Sec 1
105	MECHANICAL- BUILDINGS MATERIALS	Cylinder	Poisson’s Ratio of Concrete in Compression	ASTM C 469/C469M
106	MECHANICAL- BUILDINGS MATERIALS	Fine aggreagate	Methylene Blue	ASTM C 1777
107	MECHANICAL- BUILDINGS MATERIALS	Fly Ash	Compressive Strength at 28 Days	IS 1727
108	MECHANICAL- BUILDINGS MATERIALS	Fly Ash	Final Setting Time	IS 1727
109	MECHANICAL- BUILDINGS MATERIALS	Fly Ash	Fineness by Blaine Air Permeability	IS 1727
110	MECHANICAL- BUILDINGS MATERIALS	Fly Ash	Initial Setting Time	IS 1727
111	MECHANICAL- BUILDINGS MATERIALS	Fly Ash	Lime Reactivity	IS 1727
112	MECHANICAL- BUILDINGS MATERIALS	Fly Ash	Materials finer than 45 micron	IS 1727
113	MECHANICAL- BUILDINGS MATERIALS	Fly Ash	Soundness by Le-Chatelier	IS 1727
114	MECHANICAL- BUILDINGS MATERIALS	Fly Ash	Specific Gravity	IS 1727

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115	MECHANICAL- BUILDINGS MATERIALS	Micro silica	Accelerated pozzolanic strength activity index with portland cement at 7 days	ASTM C 1240
116	MECHANICAL- BUILDINGS MATERIALS	microsilica	Retained on 45 mic.	IS 15388
117	MECHANICAL- BUILDINGS MATERIALS	Microsilica	Specific Gravity	IS 1727
118	MECHANICAL- BUILDINGS MATERIALS	OPC	Compressive Strength at 28 Days	IS 4031 (Part 6)
119	MECHANICAL- BUILDINGS MATERIALS	OPC	Compressive Strength at 3 days	IS 4031 (Part 6)
120	MECHANICAL- BUILDINGS MATERIALS	OPC	Compressive Strength at 7 Days	IS 4031 (Part 6)
121	MECHANICAL- BUILDINGS MATERIALS	OPC	Density	IS 4031 (Part 11)
122	MECHANICAL- BUILDINGS MATERIALS	OPC	Final Setting Time	IS 4031 (Part 5)
123	MECHANICAL- BUILDINGS MATERIALS	OPC	Fineness by Blaine air permeability	IS 4031 (Part 2)
124	MECHANICAL- BUILDINGS MATERIALS	OPC	Initial Setting Time	IS 4031 (Part 5)
125	MECHANICAL- BUILDINGS MATERIALS	OPC	Soundness By Le-Chatelier	IS 4031 (Part 3)
126	MECHANICAL- BUILDINGS MATERIALS	PPC	Compressive Strength at 28 Days	IS 4031 (Part 6)
127	MECHANICAL- BUILDINGS MATERIALS	PPC	Compressive Strength at 3 Days	IS 4031 (Part 6)
128	MECHANICAL- BUILDINGS MATERIALS	PPC	Compressive Strength at 7 Days	IS 4031 (Part 6)
129	MECHANICAL- BUILDINGS MATERIALS	PPC	Density	IS 4031 (Part 11)
130	MECHANICAL- BUILDINGS MATERIALS	PPC	Drying Shrinkage	IS 4031 (Part 10)
131	MECHANICAL- BUILDINGS MATERIALS	PPC	Final Setting Time	IS 4031 (Part 5)
132	MECHANICAL- BUILDINGS MATERIALS	PPC	Fineness by Blaine air permeability	IS 4031 (Part 2)

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133	MECHANICAL- BUILDINGS MATERIALS	PPC	Initial Setting Time	IS 4031 (Part 5)
134	MECHANICAL- BUILDINGS MATERIALS	PPC	Normal Consistency	IS 4031 (Part 4)
135	MECHANICAL- BUILDINGS MATERIALS	PPC	Soundness by Le-Chatelier	IS 4031 (Part 3)