National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : RAMCO RESEARCH AND DEVELOPMENT CENTRE, NO.11A, OKKIYAM, THURAIPAKKAM, CHENNAI, TAMIL NADU, INDIA

Accreditation Standard ISO/IEC 17025:2017

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Validity 26/12/2021 to 25/12/2023 **Last Amended on** 24/03/2022

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	Clinker, Ordinary Portland Cement 43, Ordinary Portland Cement 53, Rapid Hardening Cement, Sulfur Resistant Portland Cement	Aluminium Oxide (by Fused Bead Method)	IS 12803
2	CHEMICAL- BUILDING MATERIAL	Clinker, Ordinary Portland Cement 43, Ordinary Portland Cement 53, Rapid Hardening Cement, Sulfur Resistant Portland Cement	Calcium Oxide (by Fusion Bead Method)	IS 12803
3	CHEMICAL- BUILDING MATERIAL	Clinker, Ordinary Portland Cement 43, Ordinary Portland Cement 53, Rapid Hardening Cement, Sulfur Resistant Portland Cement	Chloride	IS 4032
4	CHEMICAL- BUILDING MATERIAL	Clinker, Ordinary Portland Cement 43, Ordinary Portland Cement 53, Rapid Hardening Cement, Sulfur Resistant Portland Cement	Insoluble Residue	IS 4032
5	CHEMICAL- BUILDING MATERIAL	Clinker, Ordinary Portland Cement 43, Ordinary Portland Cement 53, Rapid Hardening Cement, Sulfur Resistant Portland Cement	Iron oxide (by Fusion Bead Method)	IS 12803
6	CHEMICAL- BUILDING MATERIAL	Clinker, Ordinary Portland Cement 43, Ordinary Portland Cement 53, Rapid Hardening Cement, Sulfur Resistant Portland Cement	Loss on Ignition	IS 4032
7	CHEMICAL- BUILDING MATERIAL	Clinker, Ordinary Portland Cement 43, Ordinary Portland Cement 53, Rapid Hardening Cement, Sulfur Resistant Portland Cement	Magnesium Oxide (by Fusion Bead Method)	IS 12803
8	CHEMICAL- BUILDING MATERIAL	Clinker, Ordinary Portland Cement 43, Ordinary Portland Cement 53, Rapid Hardening Cement, Sulfur Resistant Portland Cement	Potassium Oxide	IS 4032
9	CHEMICAL- BUILDING MATERIAL	Clinker, Ordinary Portland Cement 43, Ordinary Portland Cement 53, Rapid Hardening Cement, Sulfur Resistant Portland Cement	Silicon Dioxide (by Fusion Bead Method)	IS 12803
10	CHEMICAL- BUILDING MATERIAL	Clinker, Ordinary Portland Cement 43, Ordinary Portland Cement 53, Rapid Hardening Cement, Sulfur Resistant Portland Cement	Sodium Oxide	IS 4032
11	CHEMICAL- BUILDING MATERIAL	Clinker, Ordinary Portland Cement 43, Ordinary Portland Cement 53, Rapid Hardening Cement, Sulfur Resistant Portland Cement	Sulfur Trioxide	IS 4032
12	CHEMICAL- BUILDING MATERIAL	Clinker, Ordinary Portland Cement 43, Ordinary Portland Cement 53, Rapid Hardening Portland Cement, Sulfur Resistant Portland Cement	Aluminium Trioxide (by Pressed Pallet Method)	IS 12803
13	CHEMICAL- BUILDING MATERIAL	Clinker, Ordinary Portland Cement 43, Ordinary Portland Cement 53, Rapid Hardening Portland Cement, Sulfur Resistant Portland Cement	Iron Oxide (by Pressed Pallet Method)	IS 12803

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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 techniques / equipment used
14	CHEMICAL- BUILDING MATERIAL	Clinker, Ordinary Portland Cement 43, Ordinary Portland Cement 53, Rapid Hardening Portland Cement, Sulfur Resistant Portland Cement	Silicon Dioxide (by Pressed Pallet Method)	IS 12803
15	CHEMICAL- BUILDING MATERIAL	Clinker, Ordinary Portland Cement 43, Ordinary Portland Cement 53, Rapid Hardening Portland Cement, Sulfur Resistant Portland Cement.	Calcium Oxide (by Pressed Pallet Method)	IS 12803
16	CHEMICAL- BUILDING MATERIAL	Clinker, Ordinary Portland Cement 43, Ordinary Portland Cement 53, Rapid Hardening Portland Cement, Sulfur Resistant Portland Cement.	Magnesium Oxide (by Pressed Pallet Method)	IS 12803
17	CHEMICAL- BUILDING MATERIAL	Fly ash	Aluminium Oxide (by Fusion Bead Method)	IS 12803
18	CHEMICAL- BUILDING MATERIAL	Fly Ash	Aluminium Oxide (by Pressed Pallet Method)	IS 12803
19	CHEMICAL- BUILDING MATERIAL	Fly ash	Calcium Oxide (by Fusion Bead Method)	IS 12083
20	CHEMICAL- BUILDING MATERIAL	Fly Ash	Calcium Oxide (by Pressed Pallet Method)	IS 12803
21	CHEMICAL- BUILDING MATERIAL	Fly ash	Iron Oxide (by Fusion Bead Method)	IS 12803
22	CHEMICAL- BUILDING MATERIAL	Fly Ash	Iron Oxide (by Pressed Pallet Method)	IS 12803
23	CHEMICAL- BUILDING MATERIAL	Fly ash	Loss on Ignition	IS 1727
24	CHEMICAL- BUILDING MATERIAL	Fly ash	Magnesium Oxide (by Fusion Bead Method)	IS 12083
25	CHEMICAL- BUILDING MATERIAL	Fly ash	Magnesium Oxide (by Pressed Pallet Method)	IS 12803
26	CHEMICAL- BUILDING MATERIAL	Fly ash	Silicon Dioxide (by Fusion Bead Method)	IS 12803
27	CHEMICAL- BUILDING MATERIAL	Fly ash	Silicon Dioxide (by Pressed Pallet Method)	IS 12803
28	CHEMICAL- BUILDING MATERIAL	Fly ash	Sulfur Trioxide	IS 1727
29	CHEMICAL- BUILDING MATERIAL	Flyash	Chloride Content	IS 4032
30	CHEMICAL- BUILDING MATERIAL	Granulated Slag	Potassium Oxide	IS 4032
31	CHEMICAL- BUILDING MATERIAL	Granulated Slag	Sodium Oxide	IS 4032

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32	CHEMICAL- BUILDING MATERIAL	Granulated Slag	Sulfur trioxide	IS 4032
33	CHEMICAL- BUILDING MATERIAL	Granulated Slag	Sulphide Sulfur	IS 4032
34	CHEMICAL- BUILDING MATERIAL	Gypsum	Chloride Content	IS 4032
35	CHEMICAL- BUILDING MATERIAL	Gypsum	Combined Water	IS 1288
36	CHEMICAL- BUILDING MATERIAL	Gypsum	Moisture	IS 1288
37	CHEMICAL- BUILDING MATERIAL	Gypsum	Sulfur Trioxide	IS 1288
38	CHEMICAL- BUILDING MATERIAL	Portland Pozzolana Cement	Loss on Ignition	IS 4032
39	CHEMICAL- BUILDING MATERIAL	Portland Pozzolana Cement	Potassium Oxide	IS 4032
40	CHEMICAL- BUILDING MATERIAL	Portland Pozzolana Cement	Sodium Oxide	IS 4032
41	CHEMICAL- BUILDING MATERIAL	Portland Pozzolana Cement	Sulfur Trioxide	IS 4032
42	CHEMICAL- BUILDING MATERIAL	Portland Pozzolona Cement	Chloride	IS 4032
43	CHEMICAL- BUILDING MATERIAL	Portland Pozzolona Cement	Insoluble Residue	IS 4032
44	CHEMICAL- BUILDING MATERIAL	Portland Pozzolona Cement, Portland Slag Cement, Portland Composite Cement	Aluminium Oxide (by Fusion Bead Method)	IS 12080
45	CHEMICAL- BUILDING MATERIAL	Portland Pozzolona Cement, Portland Slag Cement, Portland Composite Cement	Aluminium Oxide (by Pressed Pallet Method)	IS 12803
46	CHEMICAL- BUILDING MATERIAL	Portland Pozzolona Cement, Portland Slag Cement, Portland Composite Cement	Calcium Oxide (by Fusion Bead Method)	IS 12083
47	CHEMICAL- BUILDING MATERIAL	Portland Pozzolona Cement, Portland Slag Cement, Portland Composite Cement	Calcium Oxide (by Pressed Pallet Method)	IS 12803
48	CHEMICAL- BUILDING MATERIAL	Portland Pozzolona Cement, Portland Slag Cement, Portland Composite Cement	Iron Oxide (by Fusion Bead Method)	IS 12083
49	CHEMICAL- BUILDING MATERIAL	Portland Pozzolona Cement, Portland Slag Cement, Portland Composite Cement	Iron Oxide (by Pressed Pallet Method)	IS 12803
50	CHEMICAL- BUILDING MATERIAL	Portland Pozzolona Cement, Portland Slag Cement, Portland Composite Cement	Magnesium Oxide (by Fusion Bead Method)	IS 12083

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51	CHEMICAL- BUILDING MATERIAL	Portland Pozzolona Cement, Portland Slag Cement, Portland Composite Cement	Magnesium Oxide (by Pressed Pallet Method)	IS 12803
52	CHEMICAL- BUILDING MATERIAL	Portland Pozzolona Cement, Portland Slag Cement, Portland Composite Cement	Silicon Dioxide	IS 12083
53	CHEMICAL- BUILDING MATERIAL	Portland Pozzolona Cement, Portland Slag Cement, Portland Composite Cement	Silicon Dioxide (by Pressed Pallet Method)	IS 12803
54	CHEMICAL- BUILDING MATERIAL	Portland Slag Cement, Portland Composite Cement	Chloride	IS 4032
55	CHEMICAL- BUILDING MATERIAL	Portland Slag Cement, Portland Composite Cement	Insoluble Residue	IS 4032
56	CHEMICAL- BUILDING MATERIAL	Portland Slag Cement, Portland Composite Cement	Loss on Ignition	IS 4032
57	CHEMICAL- BUILDING MATERIAL	Portland Slag Cement, Portland Composite Cement	Potassium Oxide	IS 4032
58	CHEMICAL- BUILDING MATERIAL	Portland Slag Cement, Portland Composite Cement	Sodium Oxide	IS 4032
59	CHEMICAL- BUILDING MATERIAL	Portland Slag Cement, Portland Composite Cement	Sulfide Sulfur	ASTM C114
60	CHEMICAL- BUILDING MATERIAL	Portland Slag Cement, Portland Composite Cement	Sulfur Trioxide	IS 4032
61	CHEMICAL- ORES & MINERALS	Limestone	Aluminium Oxide	ASTM C25-19:
62	CHEMICAL- ORES & MINERALS	Limestone	Calcium Oxide	ASTM C25 -19
63	CHEMICAL- ORES & MINERALS	Limestone	Chloride	IS 1760 (Part 5)
64	CHEMICAL- ORES & MINERALS	Limestone	Free Silica	IS 1760 (Part 6)
65	CHEMICAL- ORES & MINERALS	Limestone	Iron Oxide (Fe2O3)	ASTM C25-19
66	CHEMICAL- ORES & MINERALS	Limestone	Loss on Ignition	IS 1760 (Part 1)
67	CHEMICAL- ORES & MINERALS	Limestone	Magnesium Oxide	ASTM C25 -19
68	CHEMICAL- ORES & MINERALS	Limestone	Potassium Oxide	IS 9497
69	CHEMICAL- ORES & MINERALS	Limestone	Silicon Dioxide	ASTM C25-19

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70	CHEMICAL- ORES & MINERALS	Limestone	Sodium Oxide	IS 9497
71	CHEMICAL- SOLID FUELS	Coal	Ash Content	ASTM D3174
72	CHEMICAL- SOLID FUELS	Coal	Chlorine	IS 1350 (Part 5)
73	CHEMICAL- SOLID FUELS	Coal	Fixed Carbon	ASTM D3172
74	CHEMICAL- SOLID FUELS	Coal	Gross Calorific Value	ASTM D5865-19
75	CHEMICAL- SOLID FUELS	Coal	Moisture	ASTM D3173
76	CHEMICAL- SOLID FUELS	Coal	Sulfur	IS 1350 (Part 3)
77	CHEMICAL- SOLID FUELS	Coal	Total Moisture	ASTM D3302-19
78	CHEMICAL- SOLID FUELS	Coal	Volatile Content	ASTM D3175-20
79	CHEMICAL- SOLID FUELS	Coke	Ash Content	ASTM D3174-12
80	CHEMICAL- SOLID FUELS	Coke	Chlorine	IS 1350 (Part 5, Cl. 6.1.3.3)
81	CHEMICAL- SOLID FUELS	Coke	Fixed Carbon	ASTM D3172-13
82	CHEMICAL- SOLID FUELS	Coke	Gross Calorific Value	ASTM D5865
83	CHEMICAL- SOLID FUELS	Coke	Moisture	ASTM D3173
84	CHEMICAL- SOLID FUELS	Coke	Sulfur	IS 1350 (Part 3)
85	CHEMICAL- SOLID FUELS	Coke	Total Moisture	ASTM D4931-06
86	CHEMICAL- SOLID FUELS	Coke	Volatile Matter	ASTM D3175-20
87	MECHANICAL- BUILDINGS MATERIALS	Concrete	Compressive Strength	IS 516 (Part 1)
88	MECHANICAL- BUILDINGS MATERIALS	Concrete	Rapid Chloride Penetration Test	ASTM C1202
89	MECHANICAL- BUILDINGS MATERIALS	Concrete	Water Permeability	IS 516 (Part 12)
90	MECHANICAL- BUILDINGS MATERIALS	Fly ash	Compressive Strength	IS 1727
91	MECHANICAL- BUILDINGS MATERIALS	Fly ash	Lime Reactivity	IS 1727
92	MECHANICAL- BUILDINGS MATERIALS	Fly ash	Specific Gravity	IS 4031 (Part 11)
93	MECHANICAL- BUILDINGS MATERIALS	Fly ash	Specific Surface	IS 4031 (Part 2)
94	MECHANICAL- BUILDINGS MATERIALS	OPC- 43 & 53, PPC, PSC, PCC, RHPC, SRPC	Autoclave Expansion	IS 4031 (Part 3)

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95	MECHANICAL- BUILDINGS MATERIALS	OPC- 43 & 53, PPC, PSC, PCC, RHPC, SRPC	Compressive Strength- 168 hours (7 Days)	IS 4031 (Part 6)
96	MECHANICAL- BUILDINGS MATERIALS	OPC- 43 & 53, PPC, PSC, PCC, RHPC, SRPC	Compressive Strength- 672 hours (28 Days)	IS 4031(Part 6)
97	MECHANICAL- BUILDINGS MATERIALS	OPC- 43 & 53, PPC, PSC, PCC, RHPC, SRPC	Compressive Strength- 72 hours (3 Days)	IS 4031 (Part 6)
98	MECHANICAL- BUILDINGS MATERIALS	OPC- 43 & 53, PPC, PSC, PCC, RHPC, SRPC	Heat of Hydration - 168 hours (7 Days)	IS 4031 (Part 9)
99	MECHANICAL- BUILDINGS MATERIALS	OPC- 43 & 53, PPC, PSC, PCC, RHPC, SRPC	Heat of Hydration - 672 hours (28 Days)	IS 4031 (Part 9)
100	MECHANICAL- BUILDINGS MATERIALS	OPC- 43 & 53, PPC, PSC, PCC, RHPC, SRPC	Heat of Hydration - 72 hours (3 Days)	IS 4031 (Part 9)
101	MECHANICAL- BUILDINGS MATERIALS	OPC- 43 & 53, PPC, PSC, PCC, RHPC, SRPC	Le-Chatlier Expansion	IS 4031 (Part 3)
102	MECHANICAL- BUILDINGS MATERIALS	OPC- 43 & 53, PPC, PSC, PCC, RHPC, SRPC	Normal Consistency	IS 4031 (Part 4)
103	MECHANICAL- BUILDINGS MATERIALS	OPC- 43 & 53, PPC, PSC, PCC, RHPC, SRPC	Setting Time (Final)	IS 4031 (Part 5)
104	MECHANICAL- BUILDINGS MATERIALS	OPC- 43 & 53, PPC, PSC, PCC, RHPC, SRPC	Setting Time (Initial)	IS 4031 (Part 5)
105	MECHANICAL- BUILDINGS MATERIALS	OPC- 43 & 53, PPC, PSC, PCC, RHPC, SRPC	Sieve Analysis - Material Retained 90 microns	IS 4031 (Part 1)
106	MECHANICAL- BUILDINGS MATERIALS	OPC- 43 & 53, PPC, PSC, PCC, RHPC, SRPC	Sieve Analysis - Material Retained On 212 Microns	IS 4031 (Part 1)
107	MECHANICAL- BUILDINGS MATERIALS	OPC- 43 & 53, PPC, PSC, PCC, RHPC, SRPC	Sieve Analysis - Material Retained on 45 microns	IS 4031 (Part 1)
108	MECHANICAL- BUILDINGS MATERIALS	OPC- 43 & 53, PPC, PSC, PCC, RHPC, SRPC	Sieve Analysis- Material Retained on 25 Microns	IS 4031 (Part 1)
109	MECHANICAL- BUILDINGS MATERIALS	OPC- 43 & 53, PPC, PSC, PCC, RHPC, SRPC	Specific Gravity	IS 4031 (Part 11)
110	MECHANICAL- BUILDINGS MATERIALS	OPC- 43 & 53, PPC, PSC, PCC, RHPC, SRPC	Specific Surface	IS 4031 (Part 2)