National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CHEMICAL & METALLURGICAL LABORATORY, SHELL AND FURNISHING DIVISION, INTEGRAL COACH FACTORY, CHENNAI, TAMIL NADU, INDIA

Accreditation Standard ISO/IEC 17025:2017

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Validity 18/09/2021 to 17/09/2023 **Last Amended on** 16/05/2023

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- CORROSION TESTS	PAINT & SURFACE COATING	RESISTANCE TO SALT SPRAY	ASTM B 117
2	CHEMICAL- METALS & ALLOYS	ALUMINIUM& ITS ALLOYS	COPPER	ASTM E 1251
3	CHEMICAL- METALS & ALLOYS	ALUMINIUM& ITS ALLOYS	IRON	ASTM E 1251
4	CHEMICAL- METALS & ALLOYS	ALUMINIUM& ITS ALLOYS	MAGNESIUM	ASTM E 1251
5	CHEMICAL- METALS & ALLOYS	ALUMINIUM& ITS ALLOYS	MANGANESE	ASTM E 1251
6	CHEMICAL- METALS & ALLOYS	ALUMINIUM& ITS ALLOYS	SILICON	ASTM E 1251
7	CHEMICAL- METALS & ALLOYS	ALUMINIUM& ITS ALLOYS	ZINC	ASTM E 1251
8	CHEMICAL- METALS & ALLOYS	COPPER & ITS ALLOYS	PHOSPHORUS	BS EN 15079
9	CHEMICAL- METALS & ALLOYS	COPPER & ITS ALLOYS	TIN	BS EN 15079
10	CHEMICAL- METALS & ALLOYS	COPPER & ITS ALLOYS	ZINC	BS EN 15079
11	CHEMICAL- METALS & ALLOYS	COPPER &ITS ALLOYS	LEAD	BS EN 15079
12	CHEMICAL- METALS & ALLOYS	LOW ALLOY STEEL	CARBON	IS 8811
13	CHEMICAL- METALS & ALLOYS	LOW ALLOY STEEL	CHROMIUM	IS 8811
14	CHEMICAL- METALS & ALLOYS	LOW ALLOY STEEL	COPPER	IS 8811
15	CHEMICAL- METALS & ALLOYS	LOW ALLOY STEEL	MANGANESE	IS 8811
16	CHEMICAL- METALS & ALLOYS	LOW ALLOY STEEL	MOLYBDENUM	IS 8811
17	CHEMICAL- METALS & ALLOYS	LOW ALLOY STEEL	NICKEL	IS 8811
18	CHEMICAL- METALS & ALLOYS	LOW ALLOY STEEL	PHOSPHORUS	IS 8811

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19	CHEMICAL- METALS & ALLOYS	LOW ALLOY STEEL	SILICON	IS 8811
20	CHEMICAL- METALS & ALLOYS	LOW ALLOY STEEL	SULPHUR	IS 8811
21	CHEMICAL- METALS & ALLOYS	LOW ALLOY STEEL	VANADIUM	IS 8811
22	CHEMICAL- METALS & ALLOYS	STAINLESS STEEL	CARBON	IS 9879
23	CHEMICAL- METALS & ALLOYS	STAINLESS STEEL	CHROMIUM	IS 9879
24	CHEMICAL- METALS & ALLOYS	STAINLESS STEEL	COPPER	IS 9879
25	CHEMICAL- METALS & ALLOYS	STAINLESS STEEL	MANGANESE	IS 9879
26	CHEMICAL- METALS & ALLOYS	STAINLESS STEEL	MOLYBDENUM	IS 9879
27	CHEMICAL- METALS & ALLOYS	STAINLESS STEEL	NICKEL	IS 9879
28	CHEMICAL- METALS & ALLOYS	STAINLESS STEEL	PHOSPHORUS	IS 9879
29	CHEMICAL- METALS & ALLOYS	STAINLESS STEEL	SILICON	IS 9879
30	CHEMICAL- METALS & ALLOYS	STAINLESS STEEL	SULPHUR	IS 9879
31	CHEMICAL- METALS & ALLOYS	TOOL STEEL	CARBON	JIS G 1253
32	CHEMICAL- METALS & ALLOYS	TOOL STEEL	CHROMIUM	JIS G 1253
33	CHEMICAL- METALS & ALLOYS	TOOL STEEL	COBALT	JIS G 1253
34	CHEMICAL- METALS & ALLOYS	TOOL STEEL	MANGANESE	JIS G 1253
35	CHEMICAL- METALS & ALLOYS	TOOL STEEL	MOLYBDENUM	JIS G 1253
36	CHEMICAL- METALS & ALLOYS	TOOL STEEL	PHOSPHORUS	JIS G 1253
37	CHEMICAL- METALS & ALLOYS	TOOL STEEL	SILICON	JIS G 1253

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38	CHEMICAL- METALS & ALLOYS	TOOL STEEL	SULPHUR	JIS G 1253
39	CHEMICAL- METALS & ALLOYS	TOOL STEEL	TUNGSTEN	JIS G 1253
40	CHEMICAL- METALS & ALLOYS	TOOL STEEL	VANADIUM	JIS G 1253
41	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	% NON VOLATILE MATTER	IS 101 (Part 8 Sec 2)
42	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	% PIGMENT CONTENT	IS 101 (Part 8 Sec 2)
43	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	% VOLATILE MATTER	IS 101 (Part 2 Sec 2)
44	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	% VOLUME SOLIDS	IS 101 (Part 8 Sec 6)
45	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	CONSISTENCY	IS 101 (Part 1 Sec 5)
46	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	CONSISTENCY	RDSO Cl.4.2.3 of RDSO/M&C/PCN/100
47	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	DRY FILM THICKNESS	IS 101 (Part 3 Sec 2 Cl 6)
48	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	FINISH	IS 101 (Part 3 Sec 4)
49	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	FLEXIBILITY & ADHESION	IS 101 (Part 5 Sec 2 Cl 2.2.2)
50	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	GLOSS AT 60 deg	IS 101 (Part 4 Sec 4)
51	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	HARD DRY	IS 101 (Part 3 Sec 1)
52	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	HARD DRY AT 70 deg C for 30 Minutes	IS 101 (Part 3 Sec 1)
53	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	HARD DRY AT 70 deg C for 30 Minutes	RDSO Material Specification RDSO/M&C/PCN/100
54	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	POT LIFE	RDSO App I of RDSO/M&C/PCN/100
55	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	SCRATCH HARDNESS	IS 101 (Part 5 Sec 2)
56	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	SURFACE DRY	IS 101 (Part 3 Sec 1)

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57	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	THEORETICAL SPREADING RATE	IS 101 (Part 8 Sec 6)
58	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	VISCOSITY BY FORD CUP No.4	IS 101 (Part 1 Sec 5 Cl 3)
59	CHEMICAL- PAINTS & SURFACE COATING	Paints, Enamels & Surface coatings	WEIGHT per 10 litres	IS 101 (part 1 Sec 7)
60	MECHANICAL- MECHANICAL PROPERTIES OF METALS	METALS & ALLOYS	BRINELL HARDNESS TEST(HBW 10/3000)	IS 1500 (Part 1)
61	MECHANICAL- MECHANICAL PROPERTIES OF METALS	METALS & ALLOYS	BRINELL HARDNESS TEST(HBW 5/750)	IS 1500 (Part 1)
62	MECHANICAL- MECHANICAL PROPERTIES OF METALS	METALS & ALLOYS	PERCENT ELONGATION AFTER FRACTURE(A)	IS 1608 (Part 1)
63	MECHANICAL- MECHANICAL PROPERTIES OF METALS	METALS & ALLOYS	ROCKWELL HARDNESS TEST(HRBW)	IS 1586 (Part 1)
64	MECHANICAL- MECHANICAL PROPERTIES OF METALS	METALS & ALLOYS	ROCKWELL HARDNESS TEST(HRC)	IS 1586 (Part 1)
65	MECHANICAL- MECHANICAL PROPERTIES OF METALS	METALS & ALLOYS	TENSILE STRENGTH (Rm)	IS 1608 (Part 1)
66	MECHANICAL- MECHANICAL PROPERTIES OF METALS	METALS & ALLOYS	VICKERS HARDNESS TEST(HV10)	IS 1501 (Part 1)
67	MECHANICAL- MECHANICAL PROPERTIES OF METALS	METALS & ALLOYS	VICKERS HARDNESS TEST(HV5)	IS 1501 (Part 1)
68	MECHANICAL- MECHANICAL PROPERTIES OF METALS	METALS & ALLOYS	VICKERS HARDNESS(HV30)	IS 1501 (Part 1)
69	MECHANICAL- METALLOGRAPHY TEST	FERROUS MATERIALS, ALLOYS & PRODUCTS	MICRO STRUCTURE IDENTIFICATION OF PHASES AND CAST IRON IDENTIFICATION	ASM HANDBOOK VOLUME 9
70	MECHANICAL- RUBBER AND RUBBER PRODUCTS	RUBBER & RUBBER PRODUCTS (NATURAL & SYNTHETIC)	% ASH CONTENT	IS 3400 (part-22)
71	MECHANICAL- RUBBER AND RUBBER PRODUCTS	RUBBER & RUBBER PRODUCTS (NATURAL & SYNTHETIC)	PERCENT ELONGATION AT BREAK	IS 3400 (Part 1)

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72	MECHANICAL- RUBBER AND RUBBER PRODUCTS	RUBBER & RUBBER PRODUCTS (NATURAL & SYNTHETIC)	TENSILE STRENGTH AT BREAK	IS 3400 (Part 1)
73	NON-DESTRUCTIVE-METALS & ALLOYS	FERROMAGNETIC MATERIALS	Head shot and central conductor, WET FLUORESCENT TECHNIQUE	ASTM E 709
74	NON-DESTRUCTIVE-METALS & ALLOYS	FERROMAGNETIC MATERIALS	Head shot and central conductor, Wet Fluorescent Technique	UIC 822 5TH EDITION APPENDIX B
75	NON-DESTRUCTIVE-METALS & ALLOYS	WELDED JOINTS	RADIOGRAPHY TEST (X-Ray , GAMMA RAY- IRIDIUM 192) , digital detector technique	ISO 17636-2