National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : CHEMICAL AND METALLURGICAL LABORATORY, MATERIAL TECHNOLOGY CENTRE, LOCO WORKSHOP, PERAMBUR, CHENNAI, TAMIL NADU, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-9847 **Page No** 1 of 3

Validity 13/09/2021 to 12/09/2023 **Last Amended on** 27/09/2021

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- PAINTS & SURFACE COATING	Paints & Enamels	Accelerated Storage Stability Test	IS 8662 (Annexure F)
2	CHEMICAL- PAINTS & SURFACE COATING	Paints & Enamels	Consistency	IS 101 (Part1, Section 5)
3	CHEMICAL- PAINTS & SURFACE COATING	Paints & Enamels	Dry Film Thickness	IS 101 (Part 3, Section 2, Method 5)
4	CHEMICAL- PAINTS & SURFACE COATING	Paints & Enamels	Drying Time (Hard Dry)	IS 101 (Part 3, Section 1)
5	CHEMICAL- PAINTS & SURFACE COATING	Paints & Enamels	Fineness of Grind	IS 101 (Part 3, Section 5)
6	CHEMICAL- PAINTS & SURFACE COATING	Paints & Enamels	Mass	IS 101 (Part 1, Section 7)
7	CHEMICAL- PAINTS & SURFACE COATING	Paints & Enamels	Pigment Content	IS 101 (Part 8, Section 2)
8	CHEMICAL- PAINTS & SURFACE COATING	Paints & Enamels	Resistance to 5% H2SO4	ICF MD Spec 045, Annexure A
9	CHEMICAL- PAINTS & SURFACE COATING	Paints & Enamels	Resistance to 5% Na2CO3	ICF MD Spec 045, Annexure B
10	CHEMICAL- PAINTS & SURFACE COATING	Paints & Enamels	Scratch Hardness	IS 101 (Part 5, Section 2)
11	CHEMICAL- PAINTS & SURFACE COATING	Paints & Enamels	Volatile Matter	IS 101 (Part 2, Section 2)
12	CHEMICAL- PAINTS & SURFACE COATING	Paints & Enamels	Volume Solids	IS 101 (Part 8, Section 6)
13	CHEMICAL- PAINTS & SURFACE COATING	Paints & Enamels	Wet Opacity	IS 101 (Part 4, Section 1, Method 4)
14	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials- Transformer Oil (Mineral Insulating Oil) Dissolved Gas Analysis	Acetylene	IS 9434
15	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials- Transformer Oil (Mineral Insulating Oil) Dissolved Gas Analysis	Carbon Di-oxide	IS 9434
16	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials- Transformer Oil (Mineral Insulating Oil) Dissolved Gas Analysis	Ethane	IS 9434
17	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials- Transformer Oil (Mineral Insulating Oil) Dissolved Gas Analysis	Ethylene	IS 9434

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18	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials- Transformer Oil (Mineral Insulating Oil) Dissolved Gas Analysis	Hydrogen	IS 9434
19	ELECTRICAL- INSULATING MATERIALS & INSULATORS	Liquid Dielectric Materials- Transformer Oil (Mineral Insulating Oil) Dissolved Gas Analysis	Methane	IS 9434
20	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Aluminium metals, alloys & products	% Elongation	IS 1608 (Part 1)
21	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Aluminium metals, alloys & products	Tensile Strength	IS 1608 (Part 1)
22	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Copper metals, alloys & products	% Elongation	IS 1608 (Part 1)
23	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Copper metals, alloys & products	Tensile Strength	IS 1608 (Part 1)
24	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous metals, alloys & products	Brinell Hardness HBW 10/3000	IS 1500 (Part 1)
25	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous metals, alloys & products	% Elongation	IS 1608 (Part 1)
26	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous metals, alloys & products	Rockwell Hardness (HRC)	IS 1586 (Part 1)
27	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous metals, alloys & products	Rockwell Hardness(HRBW)	IS 1586 (Part 1)
28	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous metals, alloys & products	Tensile Strength	IS 1608 (Part 1)
29	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous metals, alloys & products	Vickers Hardness (HV30)	IS 1501 (Part 1)
30	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous metals, alloys & products	Vickers Hardness (HV5)	IS 1501 (Part 1)
31	MECHANICAL- METALLOGRAPHY TEST	Cast Iron material and products	Microstructure of Graphite	IS 7754

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32	MECHANICAL-METALLOGRAPHY TEST	Steel and Cast Iron Materials and Products	Microstructure	ASM Metals Handbook Atlas of Microstructure of Industrial Alloys Vol No. VII, 8th Edition, IS 7739 (Part 1)
33	NON-DESTRUCTIVE-METALS & ALLOYS	Axles & Discs (Forged Components)	Ultrasonic Testing - Detection of Internal Flaws	IRS-R-34
34	NON-DESTRUCTIVE-METALS & ALLOYS	Axles & Discs (Forged Components)	Ultrasonic Testing - Detection of Internal Flaws	MC-11/Revised on Sep 1991
35	NON-DESTRUCTIVE-METALS & ALLOYS	Axles & Discs (Forged Components)	Ultrasonic Testing - Detection of Internal Flaws	MC-111/Revised on Oct 2006
36	NON-DESTRUCTIVE-METALS & ALLOYS	Axles & Discs (Forged Components)	Ultrasonic Testing - Detection of Internal Flaws	MC-13/Revised on May 1999
37	NON-DESTRUCTIVE-METALS & ALLOYS	Axles & Discs (Forged Components)	Ultrasonic Testing - Detection of Internal Flaws	MC-162/ Revised on Mar 2014
38	NON-DESTRUCTIVE-METALS & ALLOYS	Axles & Discs (Forged Components)	Ultrasonic Testing - Detection of Internal Flaws	MC-34/Revised on May 2017
39	NON-DESTRUCTIVE-METALS & ALLOYS	Axles & Discs (Forged Components)	Ultrasonic Testing - Detection of Internal Flaws	MC-7/Revised on Sep 2007
40	NON-DESTRUCTIVE-METALS & ALLOYS	Axles & Discs (Forged Components)	Ultrasonic Testing - Detection of Internal Flaws	MC-95/Revised on Mar 2006
41	NON-DESTRUCTIVE-METALS & ALLOYS	Axles & Discs (Forged Components)	Ultrasonic Testing - Detection of Internal Flaws	RDSO/M&C Test method :- 1) k-405/ Revised on May 2017
42	NON-DESTRUCTIVE-METALS & ALLOYS	Roller Bearing of Coaches	Penetrant Testing - Fluorescent Water Washable	SOP No. CMT/NDT/TP/PT/01 Issue No. 01-2018