National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : BHARAT FORGE LIMITED - METALLURGICAL LAB, PUNE CONTONMENT BOARD, MUNDHWA, PUNE, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-6609 **Page No** 1 of 4

Validity 21/12/2021 to 20/12/2023 **Last Amended on** 25/03/2022

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	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Bend Testing of Material for Ductility	ASTM E290
2	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Bend Testing of Material for Ductility	IS1599
3	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Brinell Hardness (HBW) Test (10mm/3000Kgf)	ISO-6506-1
4	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Brinell Hardness Test (HBW) (10mm/3000Kgf)	ASTM E10
5	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Brinell Hardness Test (HBW) (10mm/3000Kgf)	IS 1500 PART 1
6	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Estimation of Grain Size By Comparison method Untwined Grains	ASTM E 112
7	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Izod Impact test (Room temperature)	BS131 Part 1
8	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Izod Impact Test (Room temperature)	IS 1598: 1977 RA : 2015
9	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Micro Vickers Hardness Test (HV @ 1.0Kgf)	ISO-6507-1
10	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Micro Vickers Hardness Test @ HV1.0 Kgf	ASTM E384
11	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Rockwell Hardness test (HRA)	ISO 6508-1
12	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Rockwell Hardness test (HRA)	ASTM E18
13	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Rockwell Hardness test (HRA)	IS 1586 Part 1

SCOPE OF ACCREDITATION

Laboratory Name : BHARAT FORGE LIMITED - METALLURGICAL LAB, PUNE CONTONMENT BOARD, MUNDHWA, PUNE, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-6609 **Page No** 2 of 4

Validity 21/12/2021 to 20/12/2023 **Last Amended on** 25/03/2022

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
14	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Tensile Strength	ISO 6892-1
15	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	U Notch Charpy Impact Test (Room to -196 deg C)	IS-1499
16	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	V & U notch Charpy Impact Test (Room Temperature to -196 deg C)	ASTM E23
17	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	V & U notch Charpy Impact Test (Room Temperature to -196 deg C)	ISO 148-PART 1
18	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	V & U notch Charpy Impact Test (Room Temperature to -196 deg C)	JIS Z 2242
19	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	% Elongation	ASTM A370
20	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	% Elongation	ASTM E8/8M
21	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	% Elongation	IS 1608 Part 1
22	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	% Elongation	ISO 6892-1
23	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	% Reduction of Area	ASTM E 8/8M
24	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	% Reduction of Area	IS 1608 Part 1
25	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	% Reduction of Area	ISO 6892 Part 1
26	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	0.2% Proof Stress	ASTM A370
27	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	0.2% Proof Stress	ASTM E8/8M

SCOPE OF ACCREDITATION

Laboratory Name : BHARAT FORGE LIMITED - METALLURGICAL LAB, PUNE CONTONMENT BOARD, MUNDHWA, PUNE, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-6609 **Page No** 3 of 4

Validity 21/12/2021 to 20/12/2023 **Last Amended on** 25/03/2022

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
28	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	0.2% Proof Stress	IS 1608 Part 1
29	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	0.2% Proof Stress	ISO 6892 Part 1
30	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	Bend Test	ISO 7438
31	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	Brinell Hardness Test (HBW) (10mm/3000Kgf)	ASTM E10
32	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	Rockwell Hardness test (HRBW)	ASTM E18
33	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	Rockwell Hardness test (HRBW)	IS 1586 Part 1
34	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	Rockwell Hardness test (HRBW)	ISO 6508-1
35	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	Rockwell Hardness test (HRC)	ASTM E18
36	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	Rockwell Hardness test (HRC)	IS 1586 Part 1
37	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	Rockwell Hardness test (HRC)	ISO 6508-1
38	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	Tensile Strength	ASTM A370
39	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	Tensile Strength	ASTM E8/8M
40	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	Tensile Strength	IS-1608 Part 1
41	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	Tensile Strength	ISO 6891-1

SCOPE OF ACCREDITATION

Laboratory Name : BHARAT FORGE LIMITED - METALLURGICAL LAB, PUNE CONTONMENT BOARD, MUNDHWA, PUNE, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-6609 **Page No** 4 of 4

Validity 21/12/2021 to 20/12/2023 **Last Amended on** 25/03/2022

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
42	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	Yield Strength	ASTM A370
43	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	Yield Strength	ASTM E8/8M
44	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	Yield Strength	IS 1608 Part 1
45	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Other Non-Ferrous metals, alloys & products	Yield Strength	ISO 6892-1
46	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Depth of Decarburized Layer a) by Microscopic method	ASTM E1077
47	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Depth of Decarburized Layer b) by Micro indentation hardness methods	ASTM E1077
48	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Depth of Decarburized Layer by Hardness traverse method	SAE J 419
49	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Determination of inclusion rating (Comparison Method)	IS 4163
50	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Determination of inclusion rating (Comparison Method)	ISO 4967
51	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Determination of inclusion rating (Method A)	ASTM E 45
52	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Effective Case Depth measurement by micro hardness method	DIN EN 10328
53	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Effective Case Depth measurement by micro hardness method.	IS 6416:1988
54	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Estimation of Grain Size By Comparison method Untwined Grains	ISO 643
55	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Macro Etch Test	ASTM E381
56	MECHANICAL-METALLOGRAPHY TEST	Other Non-Ferrous metals, alloy & products	Microstructure Examination	ASM Hand Book Vol.9