National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : MANGALAM TESTING BUREAU, P-83, BENARAS ROAD, BELGACHIA, HOWRAH, WEST BENGAL, INDIA

Accreditation Standard ISO/IEC 17025:2017

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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
Permanent Facility				
1	CHEMICAL- METALLIC COATINGS & TREATMENT SOLUTIONS	Coated magnetic materials	Coating thickness (using coating thickness meter)	IS 12554 : Part 2
2	CHEMICAL- METALLIC COATINGS & TREATMENT SOLUTIONS	Copper and its alloys	Mercurous Nitrate Test for Surface Crack Determination	IS2305
3	CHEMICAL- METALLIC COATINGS & TREATMENT SOLUTIONS	Zinc coated Iron & steel article	Determination of mass of zinc coating	IS 1573
4	CHEMICAL- METALLIC COATINGS & TREATMENT SOLUTIONS	Zinc coated Iron & steel article	Determination of massof Zinc Coating	IS 6745Cl No. 3.2
5	CHEMICAL- METALLIC COATINGS & TREATMENT SOLUTIONS	Zinc-Coated Iron & Steel Articles	Uniformity Test	IS 2633 (Cl. 2)
6	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloy	Chromium	IS11035
7	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloy	Copper	IS 11035
8	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloy	Iron	ASTM-E 1251
9	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloy	Iron	IS 11035
10	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloy	Lead	IS11035
11	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloy	Magnesium	ASTM-E 1251
12	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloy	Magnesium	Is 11035
13	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloy	Manganese	ASTM-E 1251
14	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloy	Manganese	IS 11035
15	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloy	Nickel	ASTM-E 1251
16	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloy	Nickle	IS11035

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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
17	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloy	Silicon	ASTM-E 1251
18	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloy	Silicon	IS 11035
19	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloy	Tin	ASTM-E 1251
20	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloy	Titanium	ASTM-E 1251
21	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloy	Titanium	IS 11035
22	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloy	Zinc	ASTM-E 1251
23	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloy	Zinc	IS 11035
24	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Copper	IS 504 (Part 3)
25	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Iron	IS 504 (Part 2)
26	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Lead	IS 504 (Part 1)
27	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Magnesium	IS 504 (Part 6)
28	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Manganese	IS504(Part 5)
29	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Nickel	IS504(Part 7)
30	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Silicon	IS 504 (Part 1)
31	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Zinc	IS 504 (Part 4)
32	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloy Steel	Boron	IS 8811
33	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloy Steel	Carbon	IS 8811
34	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloy Steel	Chromium	IS 8811
35	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloy Steel	Copper	IS 8811

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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
36	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloy Steel	Manganese	IS 8811
37	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloy Steel	Molybdenum	IS 8811
38	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloy Steel	Nickel	IS 8811
39	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloy Steel	Niobium	IS 8811
40	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloy Steel	Nitrogen	IS 8811
41	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloy Steel	Phosphorus	IS 8811
42	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloy Steel	Silicon	IS 8811
43	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloy Steel	Sulphur	IS 8811
44	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloy Steel	Vanadium	IS 8811
45	CHEMICAL- METALS & ALLOYS	Carbon and Low alloy Steel	Aluminium	IS 8811
46	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Carbon	IS228 (Part1)
47	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Chromium	IS228(Part6)
48	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Copper	IS228(Part15)
49	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Manganese	IS228(Part2)
50	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Molybdenum	IS228(Part7)
51	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Nickel	IS228(Part5)
52	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Phosphorus	IS228(Part3)
53	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Silicon	IS228(Part8)
54	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Sulphur	IS228(Part9)

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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
55	CHEMICAL- METALS & ALLOYS	Conductor copper and pure copper	Copper	IS440
56	CHEMICAL- METALS & ALLOYS	Copper & its Alloys	Aluminium	BS-EN 15079
57	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Aluminium	IS3685:
58	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Arsenic	BS-EN 15079
59	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Copper	IS3187
60	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Copper	IS3685
61	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Copper	IS4027(Part1)
62	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Iron	BS-EN 15079
63	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Iron	IS3187
64	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Iron	IS440
65	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Iron	ISS3685
66	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Lead	BS-EN 15079
67	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Lead	IS 3685
68	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Lead	IS3187
69	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Lead	IS4027(Part1)
70	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Lead	IS440
71	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Manganese	BS-EN 15079
72	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Manganese	IS 3187
73	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Nickel	BS-EN 15079

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74	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Nickel	IS 3685
75	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Nickel	IS 440
76	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Phosphorus	BS-EN 15079
77	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Phosphorus	IS 4027 (Part 3)
78	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Phosphorus	IS 440
79	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Silicon	BS-EN 15079
80	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Silicon	IS 3685
81	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Tin	BS-EN 15079
82	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Tin	IS 3685
83	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Tin	IS 4027 (Part 5)
84	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Tin	IS 440
85	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Zinc	BS-EN 15079
86	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Zinc	IS 3187
87	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Zinc	IS 3685
88	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Zinc	IS 4025 (Part 6)
89	CHEMICAL- METALS & ALLOYS	Copper Its Alloys	Antimony	BS-EN 15079
90	CHEMICAL- METALS & ALLOYS	Pig Iron & Cast Iron	Carbon	IS 12308 (Part-11)
91	CHEMICAL- METALS & ALLOYS	Pig Iron & Cast Iron	Chromium	IS 12308 (Part 8)
92	CHEMICAL- METALS & ALLOYS	Pig Iron & Cast Iron	Manganese	IS 12308 (Part 10)

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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
93	CHEMICAL- METALS & ALLOYS	Pig Iron & Cast Iron	Nickel	IS 12308 (Part 7)
94	CHEMICAL- METALS & ALLOYS	Pig Iron & Cast Iron	Phosphorus	IS 12308 (Part 5)
95	CHEMICAL- METALS & ALLOYS	Pig Iron & Cast Iron	Silicon	IS 12308 (Part 6)
96	CHEMICAL- METALS & ALLOYS	Pig Iron & Cast Iron	Sulphur	IS 12308 (Part 2)
97	CHEMICAL- METALS & ALLOYS	Stainless Steel / High Alloy Steel	Carbon	IS 9879
98	CHEMICAL- METALS & ALLOYS	Stainless Steel / High Alloy Steel	Copper	IS 9879
99	CHEMICAL- METALS & ALLOYS	Stainless Steel / High Alloy Steel	Manganese	IS 9879
100	CHEMICAL- METALS & ALLOYS	Stainless Steel / High Alloy Steel	Molybdenum	IS 9879
101	CHEMICAL- METALS & ALLOYS	Stainless Steel / High Alloy Steel	Nickel	IS 9879
102	CHEMICAL- METALS & ALLOYS	Stainless Steel / High Alloy Steel	Phosphorus	IS 9879
103	CHEMICAL- METALS & ALLOYS	Stainless Steel / High Alloy Steel	Silicon	IS 9879
104	CHEMICAL- METALS & ALLOYS	Stainless Steel/ High Alloy Steel	Aluminium	IS 9879
105	CHEMICAL- METALS & ALLOYS	Stainless Steel/ High Alloy Steel	Chromium	IS 9879
106	CHEMICAL- METALS & ALLOYS	Stainless Steel/ High Alloy Steel	Sulphur	IS 9879
107	CHEMICAL- METALS & ALLOYS	Stainless Steel/ High Alloy Steel	Vanadium	IS 9879
108	CHEMICAL- METALS & ALLOYS	Stainless steel/High Alloy Steel	Chromium	IS 228 (Part6)
109	CHEMICAL- METALS & ALLOYS	Stainless steel/High Alloy Steel	Manganese	IS 1559
110	CHEMICAL- METALS & ALLOYS	Stainless steel/High Alloy Steel	Manganese	SOP(DOC NO.MTB-03Sec NO.Fe-03 Issue No-01 Issue
111	CHEMICAL- METALS & ALLOYS	Stainless steel/High Alloy Steel	Molybdenum	IS 228 (Part 7)

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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
112	CHEMICAL- METALS & ALLOYS	Stainless steel/High Alloy Steel	Nickel	IS 228 (Part 5)
113	CHEMICAL- METALS & ALLOYS	Stainless steel/High Alloy Steel	Phosphorus	IS 228 (Part 3)
114	CHEMICAL- METALS & ALLOYS	Stainless steel/High Alloy Steel	Silicon	IS 228 (Part 8)
115	CHEMICAL- METALS & ALLOYS	Stainless steel/High Alloy Steel	Sulphur	SOP(DOC NO MTB-03 Sec No Fe-04 Issue No-01 Issue
116	CHEMICAL- METALS & ALLOYS	Stainless steel/High Alloy Steel	Carbon	IS 228 (Part1)
117	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Al & Al Alloy Welded Test Coupon	Face Bend, Root Bend, Side Bend, Macro Examination , Fillet Fracture Test & NickBreak Test, tensile test (location of fracture)	IS 7318 (part 2)
118	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Conductor & Earth wire	Bend Test	BS 3288,part-I & II
119	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Deformed Steel Bars	Re- Bend Test, AR Value (Surface Characteristics) &Mass per Meter, Bend , Tensile	IS 1786
120	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous welded Test Coupons	Face Bend, Root Bend, Side Bend, Macro Examination , Fillet Fracture Test & Nick Break Test, tensile test (location of fracture)	IS 7310 (part 1)
121	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous welded Test Coupons	Face Bend, Root Bend, Side Bend, Macro Examination , Fillet Fracture Test & NickBreak Test, tensile test (location of fracture)	API 1104
122	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Macro for Tube	ASTM E 340
123	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Dimension	IS 2486 (part 2)
124	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Dimension	IS 2486 (Part 2)

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125	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Lay Length of Wirerope	IS 1835
126	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Lay Length of Wirerope	IS 6594
127	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Lay Length of Wirerope	IS: 1367 (part 5)
128	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Lay Ratio of Wire rope	IS 1367 (part 5)
129	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Lay Ratio of Wire rope	IS 1835
130	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Lay Ratio of Wire rope	IS 6594
131	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Permanent Set Test of Spring Washer Twist Test of Spring Washer,Dimension of Spring Washer	IS 3063
132	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Proof Load &Breaking Load Test	ASTM A 370
133	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Proof Load &Breaking Load Test	IS 1608 part -1
134	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Proof Load &Breaking Load Test	ISO 6892-1:
135	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Rockwell Hardness Test	ASTM A 370
136	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Rockwell HardnessTest	ASTM A 370:
137	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Rockwell HardnessTest	IS 1586 (part 1)

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138	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Rockwell HardnessTest	IS 1586 (part 1):
139	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Slip Load Test	IS 2486 (part 1)
140	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Tensile Test (Elongation)	IS 1608 part-1
141	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Tensile Test(Elongation)	ASTM A 370
142	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials	Tensile Test(Reduction Area)	IS 1608 part-1
143	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non -Ferrous Materials &Alloys	Drift Expanding test forTube & Socket	IS 2335
144	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous materials	Bend of insulator fittings & Locking device/GI stay set, LT Pin, MS Hardware Fittings	IS 7935
145	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous materials	Bend of insulator fittings & Locking device/GI stay set, LT Pin, MS Hardware Fittings	IS 5561:
146	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous materials	Visual Examination	IS 2141
147	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous materials	Bend of insulator fittings & Locking device/GI stay set, LT Pin, MS Hardware Fittings	IS 2486(part 4) 1981
148	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous materials	Bend of insulatorfittings & Lockingdevice/GI stay set, LTPin, MS HardwareFittings	IS 2486 (part 3) 1974
149	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Materials	Bend Test	ASTM A 370:
150	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Materials	Bend Test	IS 1599 :
151	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Materials	Brinell Hardness Test(Load 10/ 3000 kgf)	IS 1500 (part 1)

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152	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Materials	Brinell Hardness Test(Load 10/3000 kgf)	ASTM A 370:
153	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous materials	Flattening	ASTM A370
154	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous materials	Flattening	IS 2328
155	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Materials &Alloys of Tube / wire /Square Bar /Hexagonal Bar / Angle/ Channel, welding Plate / plate / Pipe /Flat / Plate / Sheet /Beam / Round	Mass per Meter,Camber Test ,Dimension Test ,Sweep Test ,Concavity & convexity	IS 1732
156	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Materials &Alloys of Tube / wire /Square Bar /Hexagonal Bar / Angle/ Channel, welding Plate / plate / Pipe /Flat / Plate / Sheet /Beam / Round	Mass per Meter,Camber Test,Dimension Test ,Sweep Test, Concavity& Convexity	IS 1852
157	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Materials &Alloys of Tube/wire/squarebar/Hexagonalbar/Angle/channel,weldingPlate/pipe/flat/platesheet/beam/round	Impact test charpy & Izod impact test (V- Notch& U-Notch)	ASTM E 23
158	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Materials &Alloys of Tube/wire/squarebar/Hexagonalbar/Angle/channel,weldingPlate/pipe/flat/platesheet/beam/round	Impact test charpyImpact test (U- Notch)	IS 1499
159	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Materials &Alloys of Tube/wire/squarebar/Hexagonalbar/Angle/channel,weldingPlate/pipe/flat/platesheet/beam/round	Impact test charpyimpact test (V- Notch& U- Notch)	ASTM A 370:
160	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Materials &Alloys of Tube/wire/squarebar/Hexagonalbar/Angle/channel,weldingPlate/pipe/flat/platesheet/beam/round	Impact test charpyimpact test (V- Notch& U- Notch)	BS 131 (part 2)
161	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Materials &Alloys of Tube/wire/squarebar/Hexagonalbar/Angle/channel,weldingPlate/pipe/flat/platesheet/beam/round	Impact test charpyimpact test (V- Notch)	IS 1757
162	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Materials &Alloys of Tube/wire/squarebar/Hexagonalbar/Angle/channel,weldingPlate/pipe/flat/platesheet/beam/round	Izod Impact test (V-Notch single, Double& Triple	BS 131(part 1
163	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Materials &Alloys of Tube/wire/squarebar/Hexagonalbar/Angle/channel,weldingPlate/pipe/flat/platesheet/beam/round	Izod Impact test (V-Notch single, Double& Triple)	ASTM E23
164	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Materials &Alloys of Tube/wire/squarebar/Hexagonalbar/Angle/channel,weldingPlate/pipe/flat/platesheet/beam/round	Izod Impact Test (V-Notch single,Double &Triple)	IS 1598
165	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Materials &Alloys of Tube/wire/squarebar/Hexagonalbar/Angle/channel,weldingPlate/pipe/flat/platesheet/beam/round	Izod Impact test (V-Notch,single, Double& Triple)	ASTM A 370

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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
166	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Materials &Alloys of Tube/wire/squarebar/Hexagonalbar/Angle/channel,weldingPlate/pipe/flat/platesheet/beam/round	Mass per Meter,Camber test,dimensiontest,sweep test ,Concavity & convexity	IS 1730
167	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous welded Test Coupons	Tensile Test (location of fracture) , Face Bend, Root Bend, Side Bend, Macro Examination , Fillet Fracture Test & NickBreak Test	ASME (Sec IX) :
168	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous welded TestCoupons	MacroExamination	ASTM E 340
169	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous welded TestCoupons	Tensile Test (location of fracture) , Face Bend, Root Bend, Side Bend, Macro Examination , FilletFracture Test & NickBreak Test	ASME (Sec II) (partC):
170	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Welded TestCoupons	Tensile Test (location of fracture), Face Bend, Root Bend, Side Bend, Macro Examination , Fillet Fracture Test & Nick Break Test	IS 2825
171	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous /squarebar/Angle/channel/flat/beam/round	Mass per Meter,Camber test,Dimension test, SweepTest , Concavity &Convexity	IS 808
172	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous and Non Ferrous Materials	Tensile (YS, TS, Breaking Load Test)	IS 1608
173	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Non Ferrousmaterials	Visual Examination	IS 2121(part 1)
174	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Non-Ferrousmaterials	Lay Length and LayLength	IS 6594:
175	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Non-Ferrousmaterials	Lay Length and LayRatio	IS 1835
176	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Non-Ferrousmaterials	Lay Ratio and LayLength	IS 1367(part 5)
177	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Non-Ferrousmaterials	Visual Examination	IS 2121(part)

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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
178	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Non-Ferrousmaterials	Visual Examination	IS 2121(part 3)
179	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Test Coupons	Macro	IS 11371
180	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous welded Test Coupons	Tensile Test (location of fracture), Face Bend, Root Bend, Side Bend, Macro Examination , Fillet Fracture Test & Nick Break Test	IS 7307(part 1)
181	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous welded test coupons	Tensile Test (location of fracture), Face Bend, Root Bend, Side Bend, Macro Examination , Fillet Fracture Test & Nick Break Test	IS 7318(part 1)
182	MECHANICAL-MECHANICAL PROPERTIES OF METALS	High strength deformed steel bars and wires	Mass per Meter, Dimensional measurement	IS 1786
183	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Insulator fittings for overhead power lines-Tension Clamp etc.	Dimensional	IS 2486 part II
184	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Insulator set fittings and Earthwire fittings/ Suspension clamps/ Tension Joints and Tension clamps/ Insulator Protective fittings/ Spacer Damper/ Flexible Spacer/ Rigid Spacer/ Vibration Damper Suitable for (ACSR / AAAC/AAC/ AL59/ACS/HTLS/ OPGW/ADSS/GS Earthwire/ACS Earthwire)	Visual Examination	IS2486 Part I
185	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Insulators pin / fitting	Deflection / cantilever test	BS 3288, part-I
186	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metal fittings of insulators for overhead power lines - Tension clamp etc.	Slip Strength Test of Tension Clamp etc.	BS 3288 Part 1
187	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Rivet	Shear Strength	IS 5242
188	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Spring / coil (Ferrous& Non- Ferrous &Alloys sample)	Static Load Test	IS 7906 (part 2)
189	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Stainless Steel, Carbon Steel & Low Alloy Steel Casting	Torsion Test of Wire	IS 1717

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190	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Stainless Steel, Carbon Steel & Low Alloy Steel Casting	Vickers Hardness HV5 , HV30, HV10	IS 1501 (Pt 1)
191	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Stainless Steel, Carbon Steel & Low Alloy Steel Casting	Wrapping Test	BS 3288, Part-I
192	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Stainless Steel, Carbon Steel & Low Alloy Steel Casting	Wrapping Test of Wire	ASTM A 370
193	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Stainless Steel, Carbon Steel & Low Alloy Steel Casting	Wrapping Test of Wire	IS 1755
194	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Fasteners	Proof Load Test	IS 1367 (part6)
195	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Fasteners	Tensile Test , ProofLoad Test, WedgeLoad & HeadSoundness Test	IS 1367 (part 3)
196	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Fasterners (Bolt,Nut,Stud, Screw)	Tensile Test , ProofLoad Test, WedgeLoad & HeadSoundness Test	IRS T10:
197	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Fasterners (Bolt ,Stud, Screw)	Tensile Test , ProofLoad Test, WedgeLoad & HeadSoundness Test	ISO 898-1
198	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Fasterners (Bolt,But, Stud, Screw	Tensile Test , ProofLoad Test, WedgeLoad & HeadSoundness Test	IRS T23:
199	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Fasterners (Nut)	ProofLoad Test	ISO 898-2:
200	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Tension Clamp Fittings Conductor	Failing Load	BS 3288, part-I
201	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Tension Clamp Fittings Conductor	Tensile Strength	BS 3288,part-I
202	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Tension Clamp Fittings Conductor	Dimension Verification	BS 3288 Part-I
203	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Tension Clamp Fittings Conductor	Mechanical Load Test	BS 3288 part-I

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204	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Tension Clamp Fittings Conductor	Slip Strength Test of Tension Clamp	BS 3288 P-1
205	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Tension Clamp Fittings Conductor	Slip Strength Test of Tension Clamp	IS 2486 Part-I
206	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Tension Clamp Fittings Conductor	UTS of polling Loop	BS:1490
207	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Tension Clamp Fittings Conductor	Visual Verification	BS:3288 Part - I
208	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Zinc coated Iron & steel article	Adhesion Test	IS 2629 Cl. 6.4
209	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Zinc coated Iron & steel article	Uniformity Test	IS 2633
210	MECHANICAL-METALLOGRAPHY TEST	Cast Iron	microstructure of graphite in cast iron	IS 7754
211	MECHANICAL-METALLOGRAPHY TEST	Copper & Alloys	Micro StructuralExamination (optical Microscope)	IS 7739 (part 4)
212	MECHANICAL-METALLOGRAPHY TEST	Copper & Copper Alloy Materials	Mercurous Nitrate Test	IS 2305
213	MECHANICAL-METALLOGRAPHY TEST	Ferrous & Alloys	Non metallic Inclusion(optical Microscope)	IS 4163
214	MECHANICAL-METALLOGRAPHY TEST	Ferrous Materials	Depth Of Decarburization in Steel (Optical Microscope)	ASTM E 1077
215	MECHANICAL-METALLOGRAPHY TEST	Ferrous Metals & Alloys	Macro Rating Structural Examination	IS 13015
216	MECHANICAL-METALLOGRAPHY TEST	Ferrous & Non -ferrous metals & alloys	Macro Structural Examination	ASTM E340
217	MECHANICAL-METALLOGRAPHY TEST	Ferrous & Non -ferrous metals & alloys	Macro Structural Examination	ASM Handbook VOLUME-9
218	MECHANICAL-METALLOGRAPHY TEST	Ferrous & Non -ferrous metals & alloys	Macro Structural Examination	ASTM E381
219	MECHANICAL-METALLOGRAPHY TEST	Ferrous & Non -ferrous metals & alloys	Macro StructuralExamination	IS 11371
220	MECHANICAL-METALLOGRAPHY TEST	Ferrous & Non ferrous - Alloys	Micro StructuralExamination (optical Microscope)	IS 7739 (part 5)

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221	MECHANICAL-METALLOGRAPHY TEST	Ferrous & Non Ferrous Material	Grain Size (Optical Microscope)	ASTM E 1382
222	MECHANICAL-METALLOGRAPHY TEST	Ferrous & Non Ferrous Materials	Case Depth Of Steel (Optical Microscope)	IS 6416 Cl No 8
223	MECHANICAL-METALLOGRAPHY TEST	Ferrous & Non Ferrous Materials	Coating Thickness (Ag, Sn, Zn, Cd, Cu, Ni, Cr) (Optical Microscope)(Except gold & Ag on copper)	IS 3203
224	MECHANICAL-METALLOGRAPHY TEST	Ferrous & NonFerrous Metals &Alloys	Micro StructuralExamination (Optical Microscope)	IS 7739. (Part 1)
225	MECHANICAL-METALLOGRAPHY TEST	Ferrous & NonFerrous metals &Alloys	Micro structuralv Examination (Optical Microscope)	ASM Handbok Vol-9
226	MECHANICAL-METALLOGRAPHY TEST	Ferrous Materials	Depth Of Decarburization in Steel (Optical Microscope)	IS 6396
227	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials and Alloys	Non metallic Inclusion(optical Microscope)	ASTM E 45
228	MECHANICAL-METALLOGRAPHY TEST	Ferrous Non Ferrous Materials	Coating Thickness (Ag , Sn , Zn , Cd , Cu , Ni , Cr ,) (Optical Microscope)	ASTM B 487-85
229	MECHANICAL-METALLOGRAPHY TEST	Ferrous Non-Ferrousmaterials and Alloys	Grain Size (opticalMicroscope)	ASTM E-112
230	MECHANICAL-METALLOGRAPHY TEST	Ferrous& Non FerrousMetals & Alloys	Grain Size (opticalMicroscope & ImageAnalyser)	IS 4748
231	MECHANICAL-METALLOGRAPHY TEST	Sn Coating	Coating Thickness (Optical Microscope)	IS 1359