National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-11349 **Page No** 1 of 26

Validity 01/02/2023 to 31/01/2025 **Last Amended on** 19/06/2023

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- METALS & ALLOYS	Aluminum & its alloys	Beryllium	ASTM E1251
2	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Bismuth	ASTM E1251
3	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Calcium	ASTM E1251
4	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Chromium	ASTM E1251
5	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Cobalt	ASTM E1251
6	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Copper	ASTM E1251
7	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Gallium	ASTM E1251
8	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Iron	ASTM E1251
9	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Lead	ASTM E1251
10	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Magnesium	ASTM E1251
11	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Manganese	ASTM E1251
12	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Nickel	ASTM E1251
13	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Phosphorus	ASTM E1251
14	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Silicon	ASTM E1251
15	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Strontium	ASTM E1251
16	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Tin	ASTM E1251
17	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Titanium	ASTM E1251
18	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Vanadium	ASTM E1251

SCOPE OF ACCREDITATION

Laboratory Name : ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-11349 **Page No** 2 of 26

Validity 01/02/2023 to 31/01/2025 **Last Amended on** 19/06/2023

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
19	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Zinc	ASTM E1251
20	CHEMICAL- METALS & ALLOYS	Aluminum & its alloys	Zirconium	ASTM E1251
21	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Aluminium	ASTM E415
22	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Aluminum	IS 8811
23	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Aluminum	JIS G 1253
24	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Antimony	ASTM E415
25	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Antimony	IS 8811
26	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Arsenic	ASTM E415
27	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Arsenic	IS 8811
28	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Arsenic	JIS G 1253
29	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Boron	ASTM E415
30	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Boron	IS 8811
31	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Boron	JIS G 1253
32	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Carbon	ASTM E415
33	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Carbon	IS 8811
34	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Carbon	JIS G 1253
35	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Chromium	ASTM E415
36	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Chromium	IS 8811
37	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Chromium	JIS G 1253

SCOPE OF ACCREDITATION

Laboratory Name :	ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-11349	**Page No**	3 of 26
Validity	01/02/2023 to 31/01/2025	**Last Amended on**	19/06/2023

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
38	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Cobalt	IS 8811
39	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Cobalt	JIS G 1253
40	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Cobalt	ASTM E415
41	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Copper	ASTM E415
42	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Copper	IS 8811
43	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Copper	JIS G 1253
44	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Lead	ASTM E415
45	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Lead	IS 8811
46	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Lead	JIS G 1253
47	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Manganese	ASTM E415
48	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Manganese	IS 8811
49	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Manganese	JIS G 1253
50	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Molybdenum	ASTM E415
51	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Molybdenum	IS 8811
52	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Molybdenum	JIS G 1253
53	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Nickel	ASTM E415
54	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Nickel	IS 8811
55	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Nickel	JIS G 1253
56	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Niobium/Columbium	ASTM E415

SCOPE OF ACCREDITATION

Laboratory Name : ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-11349 **Page No** 4 of 26

Validity 01/02/2023 to 31/01/2025 **Last Amended on** 19/06/2023

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
57	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Niobium/Columbium	IS 8811
58	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Niobium/Columbium	JIS G 1253
59	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Nitrogen	ASTM E415
60	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Nitrogen	IS 228
61	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Nitrogen	IS 8811
62	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Nitrogen	JIS G 1253
63	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Phosphorus	ASTM E415
64	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Phosphorus	IS 8811
65	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Phosphorus	JIS G 1253
66	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Silicon	ASTM E415
67	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Silicon	IS 8811
68	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Silicon	JIS G 1253
69	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Sulphur	ASTM E415
70	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Sulphur	IS 8811
71	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Sulphur	JIS G 1253
72	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Tin	ASTM E415
73	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Tin	IS 8811
74	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Tin	JIS G 1253
75	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Titanium	ASTM E415

SCOPE OF ACCREDITATION

Laboratory Name :	ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-11349	**Page No**	5 of 26
Validity	01/02/2023 to 31/01/2025	**Last Amended on**	19/06/2023

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
76	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Titanium	IS 8811
77	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Titanium	JIS G 1253
78	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Tungsten	IS 8811
79	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Tungsten	JIS G 1253
80	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Vanadium	ASTM E415
81	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Vanadium	IS 8811
82	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Vanadium	JIS G 1253
83	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Zirconium	IS 8811
84	CHEMICAL- METALS & ALLOYS	Carbon and low alloy steel	Zirconium	JIS G 1253
85	CHEMICAL- METALS & ALLOYS	Cast Iron	Aluminium	JIS G 1253
86	CHEMICAL- METALS & ALLOYS	Cast Iron	Antimony	JIS G 1253
87	CHEMICAL- METALS & ALLOYS	Cast Iron	Arsenic	JIS G 1253
88	CHEMICAL- METALS & ALLOYS	Cast Iron	Boron	JIS G 1253
89	CHEMICAL- METALS & ALLOYS	Cast Iron	Carbon	ASTM E1999
90	CHEMICAL- METALS & ALLOYS	Cast Iron	Carbon	JIS G 1253
91	CHEMICAL- METALS & ALLOYS	Cast Iron	Cerium	JIS G 1253
92	CHEMICAL- METALS & ALLOYS	Cast Iron	Chromium	ASTM E1999
93	CHEMICAL- METALS & ALLOYS	Cast Iron	Chromium	JIS G 1253
94	CHEMICAL- METALS & ALLOYS	Cast Iron	Cobalt	JIS G 1253

SCOPE OF ACCREDITATION

Laboratory Name :	ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-11349	**Page No**	6 of 26
Validity	01/02/2023 to 31/01/2025	**Last Amended on**	19/06/2023

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
95	CHEMICAL- METALS & ALLOYS	Cast Iron	Copper	ASTM E1999
96	CHEMICAL- METALS & ALLOYS	Cast Iron	Copper	JIS G 1253
97	CHEMICAL- METALS & ALLOYS	Cast Iron	Lanthanum	JIS G 1253
98	CHEMICAL- METALS & ALLOYS	Cast Iron	Lead	JIS G 1253
99	CHEMICAL- METALS & ALLOYS	Cast Iron	Magnesium	JIS G 1253
100	CHEMICAL- METALS & ALLOYS	Cast Iron	Manganese	ASTM E1999
101	CHEMICAL- METALS & ALLOYS	Cast Iron	Manganese	JIS G 1253
102	CHEMICAL- METALS & ALLOYS	Cast Iron	Molybdenum	ASTM E1999
103	CHEMICAL- METALS & ALLOYS	Cast Iron	Molybdenum	JIS G 1253
104	CHEMICAL- METALS & ALLOYS	Cast Iron	Nickel	ASTM E1999
105	CHEMICAL- METALS & ALLOYS	Cast Iron	Nickel	JIS G 1253
106	CHEMICAL- METALS & ALLOYS	Cast Iron	Niobium/Columbium	JIS G 1253
107	CHEMICAL- METALS & ALLOYS	Cast Iron	Phosphorus	ASTM E1999
108	CHEMICAL- METALS & ALLOYS	Cast Iron	Phosphorus	JIS G 1253
109	CHEMICAL- METALS & ALLOYS	Cast Iron	Silicon	ASTM E1999
110	CHEMICAL- METALS & ALLOYS	Cast Iron	Silicon	JIS G 1253
111	CHEMICAL- METALS & ALLOYS	Cast Iron	Sulphur	ASTM E1999
112	CHEMICAL- METALS & ALLOYS	Cast Iron	Sulphur	JIS G 1253
113	CHEMICAL- METALS & ALLOYS	Cast Iron	Tin	ASTM E1999

SCOPE OF ACCREDITATION

Laboratory Name :	ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-11349	**Page No**	7 of 26
Validity	01/02/2023 to 31/01/2025	**Last Amended on**	19/06/2023

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
114	CHEMICAL- METALS & ALLOYS	Cast Iron	Tin	JIS G 1253
115	CHEMICAL- METALS & ALLOYS	Cast Iron	Titanium	ASTM E1999
116	CHEMICAL- METALS & ALLOYS	Cast Iron	Titanium	JIS G 1253
117	CHEMICAL- METALS & ALLOYS	Cast Iron	Tungsten	JIS G 1253
118	CHEMICAL- METALS & ALLOYS	Cast Iron	Vanadium	ASTM E1999
119	CHEMICAL- METALS & ALLOYS	Cast Iron	Vanadium	JIS G 1253
120	CHEMICAL- METALS & ALLOYS	Cast Iron	Zirconium	JIS G 1253
121	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Aluminum	BS EN 15079
122	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Antimony	BS EN 15079
123	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Arsenic	BS EN 15079
124	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Beryllium	BS EN 15079
125	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Bismuth	BS EN 15079
126	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Carbon	BS EN 15079
127	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Chromium	BS EN 15079
128	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Cobalt	BS EN 15079
129	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Iron	BS EN 15079
130	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Lead	BS EN 15079
131	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Magnesium	BS EN 15079
132	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Manganese	BS EN 15079

SCOPE OF ACCREDITATION

Laboratory Name : ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-11349 **Page No** 8 of 26

Validity 01/02/2023 to 31/01/2025 **Last Amended on** 19/06/2023

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
133	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Nickel	BS EN 15079
134	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Phosphorus	BS EN 15079
135	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Selenium	BS EN 15079
136	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Silicon	BS EN 15079
137	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Silver	BS EN 15079
138	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Sulphur	BS EN 15079
139	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Tellurium	BS EN 15079
140	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Tin	BS EN 15079
141	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Zinc	BS EN 15079
142	CHEMICAL- METALS & ALLOYS	Stainless Steel	Aluminium	IS 9879
143	CHEMICAL- METALS & ALLOYS	Stainless Steel	Aluminum	JIS G 1253
144	CHEMICAL- METALS & ALLOYS	Stainless Steel	Arsenic	IS 9879
145	CHEMICAL- METALS & ALLOYS	Stainless Steel	Boron	IS 9879
146	CHEMICAL- METALS & ALLOYS	Stainless Steel	Boron	JIS G 1253
147	CHEMICAL- METALS & ALLOYS	Stainless Steel	Carbon	ASTM E1086
148	CHEMICAL- METALS & ALLOYS	Stainless Steel	Carbon	IS 9879
149	CHEMICAL- METALS & ALLOYS	Stainless Steel	Carbon	JIS G 1253
150	CHEMICAL- METALS & ALLOYS	Stainless Steel	Chromium	ASTM E1086
151	CHEMICAL- METALS & ALLOYS	Stainless Steel	Chromium	IS 9879

SCOPE OF ACCREDITATION

Laboratory Name :	ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-11349	**Page No**	9 of 26
Validity	01/02/2023 to 31/01/2025	**Last Amended on**	19/06/2023

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
152	CHEMICAL- METALS & ALLOYS	Stainless Steel	Chromium	JIS G 1253
153	CHEMICAL- METALS & ALLOYS	Stainless Steel	Cobalt	IS 9879
154	CHEMICAL- METALS & ALLOYS	Stainless Steel	Cobalt	JIS G 1253
155	CHEMICAL- METALS & ALLOYS	Stainless Steel	Copper	ASTM E1086
156	CHEMICAL- METALS & ALLOYS	Stainless Steel	Copper	IS 9879
157	CHEMICAL- METALS & ALLOYS	Stainless Steel	Copper	JIS G 1253
158	CHEMICAL- METALS & ALLOYS	Stainless Steel	Manganese	ASTM E1086
159	CHEMICAL- METALS & ALLOYS	Stainless Steel	Manganese	JIS G 1253
160	CHEMICAL- METALS & ALLOYS	Stainless Steel	Manganese	IS 9879
161	CHEMICAL- METALS & ALLOYS	Stainless Steel	Molybdenum	ASTM E1086
162	CHEMICAL- METALS & ALLOYS	Stainless Steel	Molybdenum	IS 9879
163	CHEMICAL- METALS & ALLOYS	Stainless Steel	Molybdenum	JIS G 1253
164	CHEMICAL- METALS & ALLOYS	Stainless Steel	Nickel	ASTM E1086
165	CHEMICAL- METALS & ALLOYS	Stainless Steel	Nickel	IS 9879
166	CHEMICAL- METALS & ALLOYS	Stainless Steel	Nickel	JIS G 1253
167	CHEMICAL- METALS & ALLOYS	Stainless Steel	Niobium/Columbium	JIS G 1253
168	CHEMICAL- METALS & ALLOYS	Stainless Steel	Niobium/Columbium	IS 9879
169	CHEMICAL- METALS & ALLOYS	Stainless Steel	Nitrogen	IS 228 (Part 23)
170	CHEMICAL- METALS & ALLOYS	Stainless Steel	Nitrogen	IS 9879

SCOPE OF ACCREDITATION

Laboratory Name :	ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-11349	**Page No**	10 of 26
Validity	01/02/2023 to 31/01/2025	**Last Amended on**	19/06/2023

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
171	CHEMICAL- METALS & ALLOYS	Stainless Steel	Nitrogen	JIS G 1253
172	CHEMICAL- METALS & ALLOYS	Stainless Steel	Phosphorus	ASTM E1086
173	CHEMICAL- METALS & ALLOYS	Stainless Steel	Phosphorus	IS 9879
174	CHEMICAL- METALS & ALLOYS	Stainless Steel	Phosphorus	JIS G 1253
175	CHEMICAL- METALS & ALLOYS	Stainless Steel	Silicon	ASTM E1086
176	CHEMICAL- METALS & ALLOYS	Stainless Steel	Silicon	IS 9879
177	CHEMICAL- METALS & ALLOYS	Stainless Steel	Silicon	JIS G 1253
178	CHEMICAL- METALS & ALLOYS	Stainless Steel	Sulphur	ASTM E1086
179	CHEMICAL- METALS & ALLOYS	Stainless Steel	Sulphur	IS 9879
180	CHEMICAL- METALS & ALLOYS	Stainless Steel	Sulphur	JIS G 1253
181	CHEMICAL- METALS & ALLOYS	Stainless Steel	Tantalum	IS 9879
182	CHEMICAL- METALS & ALLOYS	Stainless Steel	Tantalum	JIS G 1253
183	CHEMICAL- METALS & ALLOYS	Stainless Steel	Tin	IS 9879
184	CHEMICAL- METALS & ALLOYS	Stainless Steel	Tin	JIS G 1253
185	CHEMICAL- METALS & ALLOYS	Stainless Steel	Titanium	IS 9879
186	CHEMICAL- METALS & ALLOYS	Stainless Steel	Titanium	JIS G 1253
187	CHEMICAL- METALS & ALLOYS	Stainless Steel	Tungsten	IS 9879
188	CHEMICAL- METALS & ALLOYS	Stainless Steel	Tungsten	JIS G 1253
189	CHEMICAL- METALS & ALLOYS	Stainless Steel	Vanadium	IS 9879

SCOPE OF ACCREDITATION

Laboratory Name : ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-11349 **Page No** 11 of 26

Validity 01/02/2023 to 31/01/2025 **Last Amended on** 19/06/2023

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
190	CHEMICAL- METALS & ALLOYS	Stainless Steel	Vanadium	JIS G 1253
191	CHEMICAL- METALS & ALLOYS	Tool Steel	Aluminum	JIS G 1253
192	CHEMICAL- METALS & ALLOYS	Tool Steel	Antimony	JIS G 1253
193	CHEMICAL- METALS & ALLOYS	Tool Steel	Arsenic	JIS G 1253
194	CHEMICAL- METALS & ALLOYS	Tool Steel	Boron	JIS G 1253
195	CHEMICAL- METALS & ALLOYS	Tool Steel	Carbon	JIS G 1253
196	CHEMICAL- METALS & ALLOYS	Tool Steel	Chromium	JIS G 1253
197	CHEMICAL- METALS & ALLOYS	Tool Steel	Cobalt	JIS G 1253
198	CHEMICAL- METALS & ALLOYS	Tool Steel	Copper	JIS G 1253
199	CHEMICAL- METALS & ALLOYS	Tool Steel	Lead	JIS G 1253
200	CHEMICAL- METALS & ALLOYS	Tool Steel	Manganese	JIS G 1253
201	CHEMICAL- METALS & ALLOYS	Tool Steel	Molybdenum	JIS G 1253
202	CHEMICAL- METALS & ALLOYS	Tool Steel	Nickel	JIS G 1253
203	CHEMICAL- METALS & ALLOYS	Tool Steel	Niobium/Columbium	JIS G 1253
204	CHEMICAL- METALS & ALLOYS	Tool Steel	Nitrogen	IS 228 (Part 23)
205	CHEMICAL- METALS & ALLOYS	Tool Steel	Phosphorus	JIS G 1253
206	CHEMICAL- METALS & ALLOYS	Tool Steel	Silicon	JIS G 1253
207	CHEMICAL- METALS & ALLOYS	Tool Steel	Sulphur	JIS G 1253
208	CHEMICAL- METALS & ALLOYS	Tool Steel	Tin	JIS G 1253

SCOPE OF ACCREDITATION

Laboratory Name :	ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-11349	**Page No**	12 of 26
Validity	01/02/2023 to 31/01/2025	**Last Amended on**	19/06/2023

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
209	CHEMICAL- METALS & ALLOYS	Tool Steel	Titanium	JIS G 1253
210	CHEMICAL- METALS & ALLOYS	Tool Steel	Tungsten	JIS G 1253
211	CHEMICAL- METALS & ALLOYS	Tool Steel	Vanadium	JIS G 1253
212	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous Alloys, Products	% Elongation after fracture	ASTM E8/E8M
213	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous Alloys, Products	Proof Strength (0.2%, 0.5%, 1 %)	IS 1608-1
214	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous Alloys, Products	Proof Strength (0.2%, 0.5%, 1%)	ISO 6892 - 1
215	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous Alloys, Products	Tensile Strength	ASTM E8/E8M
216	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous Alloys, Products	Tensile Strength	IS 1608-1
217	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous Alloys, Products	Tensile strength	ISO 6892-1
218	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous Alloys, Products	Yield Strength	ASTM E8/E8M
219	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous Alloys, Products	Yield Strength	IS 1608-1
220	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous Alloys, Products	Yield Strength	ISO 6892-1
221	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non Ferrous Alloys, Products	Yield strength (offset = 0.2%, 0.5%, 1%)	ASTM E8/E8M
222	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-ferrous alloys & products	Micro Vickers Hardness (HV 0.2)	IS 1501 -1

SCOPE OF ACCREDITATION

Laboratory Name : ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-11349 **Page No** 13 of 26

Validity 01/02/2023 to 31/01/2025 **Last Amended on** 19/06/2023

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
223	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	% Elongation after fracture	IS 1608 Part-1
224	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	% Elongation after fracture	ISO 6892-1
225	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	% Reduction of area	ASTM E8/E8M
226	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	% Reduction of area	IS 1608-1
227	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	% Reduction of area	ISO 6892-1
228	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Bend Test	IS 1599
229	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Bend Test	ISO 7438
230	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Brinell Hardness (HBW 10/1000)	ASTM E10
231	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Brinell Hardness (HBW 10/1000)	IS 1500-1
232	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Brinell Hardness (HBW 10/1000)	ISO 6506 - 1
233	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Brinell Hardness (HBW 10/3000)	ASTM E10
234	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Brinell Hardness (HBW 10/3000)	IS 1500 -1
235	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Brinell Hardness (HBW 10/3000)	ISO 6506 -1
236	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Brinell Hardness (HBW 10/500)	ASTM E10

SCOPE OF ACCREDITATION

Laboratory Name :	ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-11349	**Page No**	14 of 26
Validity	01/02/2023 to 31/01/2025	**Last Amended on**	19/06/2023

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
237	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Brinell Hardness (HBW 10/500)	IS 1500 -1
238	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Brinell Hardness (HBW 10/500)	ISO 6506 -1
239	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Brinell Hardness (HBW 2.5/187.50)	ASTM E10
240	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Brinell Hardness (HBW 2.5/187.50)	IS 1500 - 1
241	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Brinell Hardness (HBW 2.5/187.50)	ISO 6506 -1
242	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Brinell Hardness (HBW 5/250)	ASTM E10
243	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Brinell Hardness (HBW 5/250)	IS 1500-1
244	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Brinell Hardness (HBW 5/250)	ISO 6506-1
245	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Brinell Hardness (HBW 5/750)	ASTM E10
246	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Brinell Hardness (HBW 5/750)	IS 1500 - 1
247	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Brinell Hardness (HBW 5/750)	ISO 6506 -1
248	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Charpy "V" & "U" Notch Impact Test (Minus 82°C to room temperature)	IS 1757 Part 1
249	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Charpy "V" & "U" Notch Impact Test (Minus 196 °C and Minus 82°C to room temperature)	ISO 148-1
250	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Coating Thickness	ASTM B499

SCOPE OF ACCREDITATION

Laboratory Name :	ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-11349	**Page No**	15 of 26
Validity	01/02/2023 to 31/01/2025	**Last Amended on**	19/06/2023

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
251	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Coating Thickness	IS 6012
252	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Drift expanding test	IS 2335
253	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Drift expanding test	ISO 8493
254	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Erichsen cupping test	ISO 20482
255	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Flattening Test	IS 2328
256	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Flattening Test	ISO 8492
257	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	IZOD Impact Test at Room Temperature ("V" Notch)	IS 1598
258	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Micro Vickers Hardness (HV 0.1)	ASTM E384
259	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Micro Vickers Hardness (HV 0.1)	IS 1501-1
260	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Micro Vickers Hardness (HV 0.1)	ISO 6507-1
261	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Micro Vickers Hardness (HV 0.2)	ASTM E384
262	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Micro Vickers Hardness (HV 0.2)	ISO 6507-1
263	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Micro Vickers Hardness (HV 0.3)	ISO 6507 - 1
264	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Micro Vickers Hardness (HV 0.5)	ASTM E384

SCOPE OF ACCREDITATION

Laboratory Name : ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-11349 **Page No** 16 of 26

Validity 01/02/2023 to 31/01/2025 **Last Amended on** 19/06/2023

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
265	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Micro Vickers Hardness (HV 0.5)	IS 1501-1
266	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Micro Vickers Hardness (HV 0.5)	ISO 6507-1
267	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Micro Vickers Hardness (HV 1)	ASTM E384
268	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Micro Vickers Hardness (HV 1)	IS 1501-1
269	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Micro Vickers Hardness (HV0.3)	ASTM E384
270	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Micro Vickers Hardness (HV0.3)	IS 1501-1
271	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Micro Vickers Hardness (HV1)	ISO 6507-1
272	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Rockwell Hardness Test (HRA)	IS 1586-1
273	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Rockwell Hardness Test (HRA)	ISO 6508-1
274	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Rockwell Hardness Test (HRBW)	ASTM E18
275	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Rockwell Hardness Test (HRBW)	IS 1586-1
276	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Rockwell Hardness Test (HRBW)	ISO 6508-1
277	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Rockwell Hardness Test (HRC)	ASTM E18
278	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Rockwell Hardness Test (HRC)	IS 1586 Part-1

SCOPE OF ACCREDITATION

Laboratory Name :	ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-11349	**Page No**	17 of 26
Validity	01/02/2023 to 31/01/2025	**Last Amended on**	19/06/2023

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
279	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Rockwell Hardness Test (HRC)	ISO 6508-1
280	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Superficial Rockwell Hardness Test (HR15N)	ASTM E18
281	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Superficial Rockwell Hardness Test (HR15N)	IS 1586-1
282	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Superficial Rockwell Hardness Test (HR15N)	ISO 6508-1
283	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Superficial Rockwell Hardness Test (HR15TW)	ASTM E18
284	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Superficial Rockwell Hardness Test (HR15TW)	IS 1586-1
285	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Superficial Rockwell Hardness Test (HR15TW)	ISO 6508-1
286	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Superficial Rockwell Hardness Test (HR30N)	ASTM E18
287	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Superficial Rockwell Hardness Test (HR30N)	IS 1586-1
288	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Superficial Rockwell Hardness Test (HR30N)	ISO 6508-1
289	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Superficial Rockwell Hardness Test (HR30TW)	ASTM E18
290	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Superficial Rockwell Hardness Test (HR30TW)	IS 1586-1
291	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Superficial Rockwell Hardness Test (HR30TW)	ISO 6508-1
292	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Superficial Rockwell Hardness Test (HR45N)	ASTM E18

SCOPE OF ACCREDITATION

Laboratory Name :	ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-11349	**Page No**	18 of 26
Validity	01/02/2023 to 31/01/2025	**Last Amended on**	19/06/2023

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
293	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Superficial Rockwell Hardness Test (HR45N)	IS 1586-1
294	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Superficial Rockwell Hardness Test (HR45N)	ISO 6508-1
295	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Superficial Rockwell Hardness Test (HR45TW)	ASTM E18
296	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Superficial Rockwell Hardness Test (HR45TW)	IS 1586-1
297	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Superficial Rockwell Hardness Test (HR45TW)	ISO 6508-1
298	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Vickers Hardness HV 5	ASTM E92
299	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Vickers Hardness HV 5	IS 1501-1
300	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Vickers Hardness HV10	ASTM E92
301	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Vickers Hardness HV10	IS 1501-1
302	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Vickers Hardness HV10	ISO 6507-1
303	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Vickers Hardness HV30	ASTM E92
304	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Vickers Hardness HV30	IS 1501-1
305	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Vickers Hardness HV30	ISO 6507-1
306	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Vickers Hardness HV5	ISO 6507-1

SCOPE OF ACCREDITATION

Laboratory Name :	ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-11349	**Page No**	19 of 26
Validity	01/02/2023 to 31/01/2025	**Last Amended on**	19/06/2023

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
307	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Vickers Hardness Test (HV1)	ASTM E384
308	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Vickers Hardness Test (HV1)	ASTM E92
309	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Vickers Hardness Test (HV1)	IS 1501-1
310	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous Alloys, Products	Vickers Hardness Test (HV1)	ISO 6507-1
311	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Nonferrous Weld & Welded Test Specimen	Vickers Hardness HV10	ISO 9015-1
312	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Nonferrous Weld & Welded Test Specimen	Vickers Hardness HV5	ISO 9015-1
313	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys, Products	% Elongation after fracture	ASTM A370
314	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys, Products	% Reduction of area	ASTM A370
315	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys, Products	Bend Test	ASTM A370
316	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys, Products	Brinell Hardness (HBW 10/1000)	ASTM A370
317	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys, Products	Brinell Hardness (HBW 10/3000)	ASTM A370
318	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys, Products	Brinell Hardness (HBW 10/500)	ASTM A370
319	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys, Products	Brinell Hardness (HBW 2.5/187.50)	ASTM A370
320	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys, Products	Brinell Hardness (HBW 5/250)	ASTM A370

SCOPE OF ACCREDITATION

Laboratory Name :	ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-11349	**Page No**	20 of 26
Validity	01/02/2023 to 31/01/2025	**Last Amended on**	19/06/2023

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
321	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys, Products	Brinell Hardness (HBW 5/750)	ASTM A370
322	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys, Products	Crush Test	ASTM A370
323	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys, Products	Flaring Test	ASTM A370
324	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys, Products	Flattening Test	ASTM A370
325	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys, Products	Rockwell Hardness Test (HRA)	ASTM A370
326	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys, Products	Rockwell Hardness Test (HRBW)	ASTM A370
327	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys, Products	Rockwell Hardness Test (HRC)	ASTM A370
328	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys, Products	Yield Strength	ASTM A370
329	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous and Non-Ferrous Alloy Products	Rockwell Hardness Test (HRA)	ASTM E18
330	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, Alloys & Products	Tensile Strength	ASTM A370
331	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Non Ferrous Alloys, Products	Tensile strength	ASTM B557B557M
332	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Non Ferrous Alloys, Products	Yield strength (offset = 0.2%, 0.5%, 1%)	ASTM A370
333	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Non Ferrous Alloys, Products	Yield strength (offset = 0.2%, 0.5%, 1%)	ASTM B557B557M
334	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Non Ferrous Alloys, Products	Yield Strength	ASTM B557B557M

SCOPE OF ACCREDITATION

Laboratory Name : ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-11349 **Page No** 21 of 26

Validity 01/02/2023 to 31/01/2025 **Last Amended on** 19/06/2023

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
335	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Non-Ferrous Alloys, Products	% Elongation after fracture	ASTM B557B557M
336	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Non-Ferrous Alloys, Products	% Reduction of area	ASTM B557B557M
337	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Powder Coated Items - Metallic Materials	Color	IS 101 : Part 3 : Sec 2
338	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Powder Coated Items - Metallic Materials	Cupping Test	IS 101 Part 5 Sec 2 (c)
339	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Powder Coated Items - Metallic Materials	Dry Film thickness	IS 101 : Part 3 : Sec 2
340	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Powder Coated Items - Metallic Materials	Gloss @ 60°	IS 101 : Part 4 : Sec 4:
341	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Powder Coated Items - Metallic Materials	Scratch hardness	IS 101 : Part 5 : Sec 2 (b)
342	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Powder Coated Items - Metallic Materials	Surface Finish	IS 101 : Part 3 : Sec 4
343	MECHANICAL-MECHANICAL PROPERTIES OF METALS	TMT Bars	ReBend Test	IS 1786
344	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Chisel and Peel Test	AWS B4.0 cl.no.11.2.5&11.2.2
345	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Chisel and Peel Test	ISO 10447
346	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Face / Root / Side Bend	API 1104(Clause 5.6.4 &5.6.5)
347	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Face / Root / Side Bend	ASME Sec IX (QW 160)
348	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Face / Root / Side Bend	AWS B4.0(Clause 6.8.2)

SCOPE OF ACCREDITATION

Laboratory Name :	ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-11349	**Page No**	22 of 26
Validity	01/02/2023 to 31/01/2025	**Last Amended on**	19/06/2023

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
349	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Face / Root / Side Bend	AWS D1.1/D1.1M(Clause 6.10.3.1)
350	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Face / Root / Side Bend	AWS D1.6/D1.6M(Clause 6.9.3.2)
351	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Face / Root / Side Bend	BS EN ISO 15614-1(Clause 7.4.2)
352	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Face / Root / Side Bend	IS 2825 (Clause 8.5.9)
353	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Face / Root / Side Bend	IS 3600 -7(Clause 6)
354	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Face / Root / Side Bend	IS 7307-1(Clause 7.3.3)
355	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Face / Root / Side Bend	ISO 5173 (Clause 6.2.1)
356	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Face/Root/Side bend	IBR cl. no. 262
357	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Fracture Test	AS 2205 cl.no. 4.2
358	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Fracture Test	ASME SEC IX QW 182
359	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Fracture Test	AWS B4.0 cl.no.9.2
360	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Fracture Test	AWS D1.1/D1.1M cl.no.6.13
361	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Fracture Test	AWS D1.6/D1.6M cl.no.6.10
362	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Fracture Test	IBR 1950 611b

SCOPE OF ACCREDITATION

Laboratory Name : ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-11349 **Page No** 23 of 26

Validity 01/02/2023 to 31/01/2025 **Last Amended on** 19/06/2023

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
363	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Fracture Test	IS 2825 cl.no.7.2.6.3
364	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Fracture Test	IS 3600-8
365	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Fracture Test	IS 7307-1 cl.no. 7.1
366	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Fracture Test	ISO 15614-1 cl.no.7
367	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Fracture Test	ISO 9017
368	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Nick Break Test	API 1104 cl.no.5.6.3
369	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Nick Break Test	AS 2205 cl.no.4.1
370	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Nick Break Test	IBR
371	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Nick Break Test	IS 2825 cl.no.8.5.10
372	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Nick Break Test	IS 3600-8
373	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Peel Test	ASME SEC IX QW196.2.2
374	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Peel Test	ISO 14270
375	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Shear Test	ASME SEC IX QW196.2.1
376	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Shear Test	AWS B4.0 cl.no. 11.2.6

SCOPE OF ACCREDITATION

Laboratory Name : ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-11349 **Page No** 24 of 26

Validity 01/02/2023 to 31/01/2025 **Last Amended on** 19/06/2023

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
377	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Shear Test	ISO 14273
378	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & welded test specimens	Tensile Strength	API 1104 (Clause 6.5.3)
379	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Tensile Strength	AS 2205 cl. no.2.1
380	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Tensile Strength	ASME Sec IX (QW 150
381	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Tensile Strength	AWS B4.0(Clause 4.8)
382	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Tensile Strength	AWS D1.1/D1.1M(Clause 6.10.3.4 & 6.10.3.5)
383	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Tensile Strength	AWS D1.6/D1.6M(Clause 6.10.3.4 & 6.10.3.5)
384	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Tensile Strength	IBR chapter X cl.no.418
385	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Tensile Strength	IS 2825 (Clause 8.6.1)
386	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Tensile Strength	IS 3600-3
387	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Tensile Strength	IS 7307-1(Clause 7.3.3 c&d)
388	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Tensile Strength	ISO 15614-1 cl.no.7.4.1
389	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds & Welded Test Specimens	Tensile Strength	ISO 4136
390	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Depth of Decarburization	ISO 3887

SCOPE OF ACCREDITATION

Laboratory Name :	ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-11349	**Page No**	25 of 26
Validity	01/02/2023 to 31/01/2025	**Last Amended on**	19/06/2023

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
391	MECHANICAL-METALLOGRAPHY TEST	Cast Iron	Micro examination	ASTM A247
392	MECHANICAL-METALLOGRAPHY TEST	Cast Iron	Micro examination	ISO 945-1
393	MECHANICAL-METALLOGRAPHY TEST	Ferrous & Non Ferrous Alloys Products Steel	Grain size measurement	ASTM E112
394	MECHANICAL-METALLOGRAPHY TEST	Ferrous alloys, Non Ferrous Alloys - Al abd Cu.	Micro examination	ASM METALS HAND BOOK VOL-09
395	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Case Depth (Hardness Traverse method)	IS 6416
396	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Case Depth (Microscopic method)	IS 6416
397	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Depth of Decarburization	ASTM E1077
398	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Depth of Decarburization	IS 6396
399	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Grain size measurement	IS 4748
400	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Grain size measurement	ISO 643
401	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Inclusion analysis	ASTM E45
402	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Inclusion analysis	IS 4163
403	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials, alloys & products	Inclusion analysis	ISO 4967
404	MECHANICAL-METALLOGRAPHY TEST	Metal and Oxide coating on Metals	Measurement of Metal and oxide coating thickness by Microscopic method	ASTM B487
405	MECHANICAL-METALLOGRAPHY TEST	Metallic and Oxide coating on Metals	Measurement of coating thickness by Microscopic method	ISO 1463
406	MECHANICAL-METALLOGRAPHY TEST	Metals and Alloys	Macro etch test	ASTM E340
407	MECHANICAL-METALLOGRAPHY TEST	Micro examination	Cast Iron	IS 7754
408	MECHANICAL-METALLOGRAPHY TEST	Steel Bars, Billets, Blooms and Forgings	Macro Etch test	ASTM E381

SCOPE OF ACCREDITATION

Laboratory Name :	ULOGAM ANALYTICAL SERVICES, NO. 442, DSK TOWER, SIDCO INDUSTRIAL ESTATE, AMBATTUR, CHENNAI, TAMIL NADU, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-11349	**Page No**	26 of 26
Validity	01/02/2023 to 31/01/2025	**Last Amended on**	19/06/2023

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
409	MECHANICAL-METALLOGRAPHY TEST	Surface-hardened layers	Case Depth (Hardness Traverse method)	ISO 18203
410	MECHANICAL-METALLOGRAPHY TEST	Surface-hardened layers	Case Depth (Microscopic method)	ISO 18203
411	MECHANICAL-METALLOGRAPHY TEST	Welds & Welded Test Specimens	Macro Examination	AS 2205
412	MECHANICAL-METALLOGRAPHY TEST	Welds & Welded Test Specimens	Macro Examination	ASME SEC IX
413	MECHANICAL-METALLOGRAPHY TEST	Welds & Welded Test Specimens	Macro Examination	AWS D1.1/D1.1M
414	MECHANICAL-METALLOGRAPHY TEST	Welds & Welded Test Specimens	Macro Examination	AWS D1.6/D1.6M
415	MECHANICAL-METALLOGRAPHY TEST	Welds & Welded Test Specimens	Macro Examination	IBR
416	MECHANICAL-METALLOGRAPHY TEST	Welds & Welded Test Specimens	Macro Examination	IS 2825
417	MECHANICAL-METALLOGRAPHY TEST	Welds & Welded Test Specimens	Macro Examination	IS 3600-9
418	MECHANICAL-METALLOGRAPHY TEST	Welds & Welded Test Specimens	Macro Examination	IS 7307-1
419	MECHANICAL-METALLOGRAPHY TEST	Welds & Welded Test Specimens	Macro Examination	ISO 17639
420	MECHANICAL-METALLOGRAPHY TEST	Wrought Steel Products	Macro Etch test	IS 11371