SCOPE OF ACCREDITATION

Laboratory Name : QC LAB, CS PLANT, KUTCH WORKS, RATNAMANI METALS & TUBES LTD., SURVEY NO. 474, BHACHAU-ANJAR ROAD, BHIMASAR, ANJAR, GUJARAT, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-7028 **Page No** 1 of 12

Validity 10/04/2022 to 09/04/2024 **Last Amended on** 15/07/2022

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	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Aluminum (Al)	ASTM E415
2	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Aluminum (Al)	IS 8811
3	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Boron (B)	ASTM E415
4	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Boron (B)	IS 8811
5	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Calcium (Ca)	ASTM E415
6	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Carbon (C)	ASTM E 415
7	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Carbon (C)	IS 8811
8	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Chromium (Cr)	ASTM E415
9	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Chromium (Cr)	IS 8811
10	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Copper (Cu)	ASTM E415
11	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Copper (Cu)	IS 8811
12	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Manganese (Mn)	ASTM E415
13	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Manganese (Mn)	IS 8811
14	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Molybdenum (Mo)	ASTM E415
15	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Molybdenum (Mo)	IS 8811 (Reaffirmed 2018)
16	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Nickel (Ni)	ASTM E415
17	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Nickel (Ni)	IS 8811
18	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Niobium (Nb)	ASTM E415

SCOPE OF ACCREDITATION

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Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-7028 **Page No** 2 of 12

Validity 10/04/2022 to 09/04/2024 **Last Amended on** 15/07/2022

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
19	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Niobium (Nb)	IS 8811
20	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Nitrogen (N)	ASTM E415
21	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Phosphorus (P)	ASTM E415
22	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Phosphorus (P)	IS 8811
23	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Silicon (Si)	ASTM E415
24	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Silicon (Si)	IS 8811
25	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Sulphur (S)	ASTM E415
26	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Sulphur (S)	IS 8811
27	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Titanium (Ti)	ASTM E415
28	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Titanium (Ti)	IS 8811
29	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Vanadium (V)	ASTM E415
30	CHEMICAL- METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate	Vanadium (V)	IS 8811
31	CHEMICAL- PAINTS & SURFACE COATING	ADHESIVE (FOR PIPE SURFACE LAYERING)	MELT FLOW INDEX / RATE	ASTM D1238
32	CHEMICAL- PAINTS & SURFACE COATING	ADHESIVE (FOR PIPE SURFACE LAYERING)	MELT FLOW INDEX / RATE	ISO1133-1
33	CHEMICAL- PAINTS & SURFACE COATING	ADHESIVE (FOR PIPE SURFACE LAYERING)	MOISTURE/WATER CONTENT TEST	CAN/CSA Z245.20
34	CHEMICAL- PAINTS & SURFACE COATING	ADHESIVE (FOR PIPE SURFACE LAYERING)	MOISTURE/WATER CONTENT TEST	ISO 15512
35	CHEMICAL- PAINTS & SURFACE COATING	ADHESIVE (FOR PIPE SURFACE LAYERING)	SPECIFIC GRAVITY	ASTM D792
36	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	CURE TIME	CAN/CSA Z245.20
37	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	CURE TIME	ISO 11357-1

SCOPE OF ACCREDITATION

Laboratory Name : QC LAB, CS PLANT, KUTCH WORKS, RATNAMANI METALS & TUBES LTD., SURVEY NO. 474, BHACHAU-ANJAR ROAD, BHIMASAR, ANJAR, GUJARAT, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-7028 **Page No** 3 of 12

Validity 10/04/2022 to 09/04/2024 **Last Amended on** 15/07/2022

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
38	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	CURE TIME	ISO 21809-1
39	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	CURE TIME	ISO 21809-2
40	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	CURE TIME	NACE SP 0394
41	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	DEGREE OF CURE	CAN/CSA Z245.20
42	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	DEGREE OF CURE	ISO 11357-1
43	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	DEGREE OF CURE	ISO 21809-1
44	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	DEGREE OF CURE	ISO 21809-2
45	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	DEGREE OF CURE	NACE SP 0394
46	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	DEGREE OF CURE (Delta Tg)	CAN/CSA Z245.20
47	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	DEGREE OF CURE (Delta Tg)	ISO 11357-1
48	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	DEGREE OF CURE (Delta Tg)	ISO 21809-1
49	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	DEGREE OF CURE (Delta Tg)	ISO 21809-2
50	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	DEGREE OF CURE (Delta Tg)	NACE SP0394
51	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	DENSITY	CAN/CSA Z245.20
52	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	DENSITY	ISO 21809-1
53	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	DENSITY	ISO 21809-2
54	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	DENSITY	NACE SP0394
55	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	GEL TIME	CAN/CSA Z 245.20
56	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	GEL TIME	ISO 21809-1

SCOPE OF ACCREDITATION

Laboratory Name : QC LAB, CS PLANT, KUTCH WORKS, RATNAMANI METALS & TUBES LTD., SURVEY NO. 474, BHACHAU-ANJAR ROAD, BHIMASAR, ANJAR, GUJARAT, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-7028 **Page No** 4 of 12

Validity 10/04/2022 to 09/04/2024 **Last Amended on** 15/07/2022

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
57	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	GEL TIME	ISO 21809-2
58	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	GEL TIME	ISO 8130-6
59	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	GEL TIME	NACE SP 0394
60	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	MOISTURE CONTENT	CAN/CSA Z245.20
61	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	MOISTURE CONTENT	ISO 21809-1
62	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	MOISTURE CONTENT	ISO 21809-2
63	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	MOISTURE CONTENT	NACE SP0394
64	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	THERMAL ANALYSIS (Delta H)	CAN/CSA Z245.20
65	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	THERMAL ANALYSIS (Delta H)	ISO 21809-1
66	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	THERMAL ANALYSIS (Delta H)	ISO 21809-2
67	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	THERMAL ANALYSIS (Delta H)	NACE SP0394
68	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	THERMAL ANALYSIS (Tg1)	CAN/CSA Z245.20
69	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	THERMAL ANALYSIS (Tg1)	ISO 21809-1
70	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	THERMAL ANALYSIS (Tg1)	ISO 21809-2
71	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	THERMAL ANALYSIS (Tg1)	NACE SP0394
72	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	THERMAL ANALYSIS (Tg2)	CAN/CSA Z245.20
73	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	THERMAL ANALYSIS (Tg2)	ISO 21809-1
74	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	THERMAL ANALYSIS (Tg2)	ISO 21809-2
75	CHEMICAL- PAINTS & SURFACE COATING	EPOXY POWDER (FOR PIPE SURFACE LAYERING)	THERMAL ANALYSIS (Tg2)	NACE SP0394

SCOPE OF ACCREDITATION

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Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-7028 **Page No** 5 of 12

Validity 10/04/2022 to 09/04/2024 **Last Amended on** 15/07/2022

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
76	CHEMICAL- PAINTS & SURFACE COATING	FUSION BOND EPOXY (FBE) /DUAL LAYER FUSION BOND EPOXY COATED STEEL PIPE	ADHESION TEST (HOT WATER SOAK)	ISO 21809-2
77	CHEMICAL- PAINTS & SURFACE COATING	FUSION BOND EPOXY (FBE)/ DUAL LAYER FUSION BOND (DFBE) COATED STEEL PIPE	ADHESION TEST (HOT WATER SOAK)	CAN/CSA Z245.20
78	CHEMICAL- PAINTS & SURFACE COATING	FUSION BOND EPOXY (FBE)/ DUAL LAYER FUSION BOND EPOXY (DFBE) COATED STEEL PIPE	ADHESION TEST (HOT WATER SOAK)	NACE SP 0394
79	CHEMICAL- PAINTS & SURFACE COATING	FUSION BOND EPOXY (FBE)/DUAL FUSION BOND EPOXY (DFBE) COATED STEEL PIPE	FLEXIBILITY OF APPLIED COATING	ISO 21809-2
80	CHEMICAL- PAINTS & SURFACE COATING	FUSION BOND EPOXY (FBE)/DUAL FUSION BOND EPOXY COATED STEEL PIPE	FLEXIBILITY OF APPLIED COATING	NACE SP 0394
81	CHEMICAL- PAINTS & SURFACE COATING	FUSION BOND EPOXY COATED (FBE)/DUAL FUSION BOND EPOXY COATED (DFBE)	FLEXIBILITY OF APPLIED COATING	CAN/CSA Z245.20
82	CHEMICAL- PAINTS & SURFACE COATING	HOT WATER IMMERSION TEST	HOT WATER IMMERSION TEST	ISO 21809-1
83	CHEMICAL- PAINTS & SURFACE COATING	LIQUID EPOXY COATED STEEL PANELS	ADHESION OF APPLIED PAINT COATING	ISO 2409
84	CHEMICAL- PAINTS & SURFACE COATING	LIQUID EPOXY COATED STEEL PANELS	ADHESION OF APPLIED PAINT COATING	API RP 5L2
85	CHEMICAL- PAINTS & SURFACE COATING	LIQUID EPOXY COATED STEEL PANELS	BEND TEST OF APPLIED PAINT COATING	API RP 5L2
86	CHEMICAL- PAINTS & SURFACE COATING	LIQUID EPOXY COATED STEEL PANELS	BEND TEST OF APPLIED PAINT COATING	ISO 6860
87	CHEMICAL- PAINTS & SURFACE COATING	LIQUID EPOXY COATED STEEL PANELS	BUCHHOLZ HARDNESS OF APPLIED PAINT COATING	ISO 2815
88	CHEMICAL- PAINTS & SURFACE COATING	LIQUID EPOXY COATED STEEL PANELS	BUCHHOLZ HARDNESS TEST OF APPLIED PAINT COATING	API RP 5L2
89	CHEMICAL- PAINTS & SURFACE COATING	LIQUID EPOXY COATED STEEL PANELS	PULL OFF ADHESION/STRENGTH OF COATING	ASTM D 4541
90	CHEMICAL- PAINTS & SURFACE COATING	POLYETHYLENE (FOR PIPE SURFACE LAYERING)	MELT FLOW INDEX / RATE	ASTM D1238
91	CHEMICAL- PAINTS & SURFACE COATING	POLYETHYLENE (FOR PIPE SURFACE LAYERING)	MELT FLOW INDEX / RATE	ISO 1133-1
92	CHEMICAL- PAINTS & SURFACE COATING	POLYETHYLENE (FOR PIPE SURFACE LAYERING)	MOISTURE/WATER CONTENT TEST	CAN/CSA Z245.20
93	CHEMICAL- PAINTS & SURFACE COATING	POLYETHYLENE (FOR PIPE SURFACE LAYERING)	MOISTURE/WATER CONTENT TEST	ISO 15512

SCOPE OF ACCREDITATION

Laboratory Name : QC LAB, CS PLANT, KUTCH WORKS, RATNAMANI METALS & TUBES LTD., SURVEY NO. 474, BHACHAU-ANJAR ROAD, BHIMASAR, ANJAR, GUJARAT, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-7028 **Page No** 6 of 12

Validity 10/04/2022 to 09/04/2024 **Last Amended on** 15/07/2022

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94	CHEMICAL- PAINTS & SURFACE COATING	POLYETHYLENE (FOR PIPE SURFACE LAYERING)	OXIDATIVE INDUCTION TIME	ASTM D3895
95	CHEMICAL- PAINTS & SURFACE COATING	POLYETHYLENE (FOR PIPE SURFACE LAYERING)	OXIDATIVE INDUCTION TIME	ISO 11357-6
96	CHEMICAL- PAINTS & SURFACE COATING	POLYETHYLENE (FOR PIPE SURFACE LAYERING)	SPECIFIC GRAVITY	ASTM D792
97	CHEMICAL- PAINTS & SURFACE COATING	POLYETHYLENE (FOR PIPE SURFACE LAYERING)	WATER ABSORPTION	ASTM D570
98	CHEMICAL- PAINTS & SURFACE COATING	SOLVENT BASE LIQUID EPOXY PAINT (PART-A)	DENSITY OF PAINT (BY PYKNOMETER)	ISO 2811-1
99	CHEMICAL- PAINTS & SURFACE COATING	SOLVENT BASE LIQUID EPOXY PAINT (PART-B)	DENSITY OF PAINT (BY PYKNOMETER)	ISO 2811-1
100	CHEMICAL- PAINTS & SURFACE COATING	SOLVENT FREE FOOD GRADE LIQUID EPOXY PAINT (PART-A)	DENSITY OF PAINT (BY PYKNOMETER)	ISO 2811-1
101	CHEMICAL- PAINTS & SURFACE COATING	SOLVENT FREE FOOD GRADE LIQUID EPOXY PAINT (PART-B)	DENSITY OF PAINT (BY PYKNOMETER)	ISO 2811-1
102	CHEMICAL- PAINTS & SURFACE COATING	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	FLEXIBILITY OF APPLIED COATING	ISO 21809-1
103	CHEMICAL- PAINTS & SURFACE COATING	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	FLEXIBILITY OF APPLIED COATING	CAN/CSA Z245.20
104	MECHANICAL-MECHANICAL PROPERTIES OF METALS	HR Coil / HR Plate	Bend test	ASTM E290
105	MECHANICAL-MECHANICAL PROPERTIES OF METALS	HR Coil / HR Plate	Bend test	IS 1599
106	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe	Flattening Test	ASTM A370
107	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe	Flattening Test	IS 2328
108	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe	Flattening Test	ISO 8492
109	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe	Guided Bend Test	ASTM A370

SCOPE OF ACCREDITATION

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Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-7028 **Page No** 7 of 12

Validity 10/04/2022 to 09/04/2024 **Last Amended on** 15/07/2022

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
110	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe	Guided Bend Test	ASTM E190
111	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	% Elongation	ASTM A370
112	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	% Elongation	ASTM E8/E8M
113	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	% Elongation	IS 1608(Part-1)
114	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	% Elongation	ISO 6892-1
115	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Charpy V Notch Impact Test Energy	ASTM A370
116	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Charpy V Notch Impact Test Energy	ASTM E23
117	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Charpy V Notch Impact Test Energy	ISO 148-1
118	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Drop Weight Tear Test	API RP 5L3
119	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Ultimate Tensile Test	ASTM A370
120	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Ultimate Tensile Test	ASTM E8/E8M
121	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Ultimate Tensile Test	IS 1608(Part-1)
122	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Ultimate tensile Test	ISO 6892-1
123	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Vickers Hardness Test	ASTM A370

SCOPE OF ACCREDITATION

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Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-7028	**Page No**	8 of 12
Validity	10/04/2022 to 09/04/2024	**Last Amended on**	15/07/2022

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
124	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Vickers Hardness Test	ASTM E92
125	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Vickers Hardness Test	ISO 6507-1
126	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Yield Strength (0.2% Proof stress)	ASTM A370
127	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Yield Strength (0.2% Proof stress)	ASTM E8/E8M
128	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Yield Strength (0.2% Proof stress)	IS 1608(Part-1)
129	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Yield Strength (0.2% Proof stress)	ISO 6892-1
130	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Yield Strength (Graph method)	ASTM A370
131	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Yield Strength (Graph method)	ASTM E8/E8M
132	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Yield Strength (Graph method)	IS 1608(Part-1)
133	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Yield Strength (Graph method)	ISO 6892-1
134	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Yield stress (0.5% Extension Under Load)	ASTM A370
135	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Yield Stress (0.5% Extension Under Load)	ASTM E8/E8M
136	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Yield Stress (0.5% Extension Under Load)	IS 1608(Part-1)
137	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe / HR Coil / HR Plate	Yield stress (0.5% Extension Under Load)	ISO 6892-1

SCOPE OF ACCREDITATION

Laboratory Name : QC LAB, CS PLANT, KUTCH WORKS, RATNAMANI METALS & TUBES LTD., SURVEY NO. 474, BHACHAU-ANJAR ROAD, BHIMASAR, ANJAR, GUJARAT, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-7028 **Page No** 9 of 12

Validity 10/04/2022 to 09/04/2024 **Last Amended on** 15/07/2022

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
138	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded Pipe /HR Coil / HR Plate	Guided Bend Test	ISO 7438
139	MECHANICAL-METALLOGRAPHY TEST	Welded Pipe / HR Coil / HR Plate	Grain Size Measurement	ASM Handbook Vol.9
140	MECHANICAL-METALLOGRAPHY TEST	Welded Pipe / HR Coil / HR Plate	Grain Size Measurement	ASTM E112
141	MECHANICAL-METALLOGRAPHY TEST	Welded Pipe / HR Coil / HR Plate	Grain Size Measurement	ASTM E1382
142	MECHANICAL-METALLOGRAPHY TEST	Welded Pipe / HR Coil / HR Plate	Grain Size Measurement	IS 4748
143	MECHANICAL-METALLOGRAPHY TEST	Welded Pipe / HR Coil / HR Plate	Hydrogen Induced Cracking Test (HIC)	NACE TM0284
144	MECHANICAL-METALLOGRAPHY TEST	Welded Pipe / HR Coil / HR Plate	Macro Examination	ASM Handbook Vol.9
145	MECHANICAL-METALLOGRAPHY TEST	Welded Pipe / HR Coil / HR Plate	Macro Examination	IS 3600-9
146	MECHANICAL-METALLOGRAPHY TEST	Welded Pipe / HR Coil / HR Plate	Micro Examination	ASM Handbook Vol.9
147	MECHANICAL-METALLOGRAPHY TEST	Welded Pipe / HR Coil / HR Plate	Sulfide Stress Cracking Test by Four point Bend (SSC Test)	NACE TM0177 (Method B)
148	MECHANICAL-METALLOGRAPHY TEST	Welded Pipe / HR Coil / HR Plate	Sulfide Stress Cracking Test by Four point Bend method	ASTM G39-99
149	MECHANICAL-METALLOGRAPHY TEST	Welded Pipe / HR Coil / HR Plate	Sulfide Stress Cracking Test by Four point Bend method	NACE TM0316
150	MECHANICAL-METALLOGRAPHY TEST	Welded Pipe / HR Coil / HR Plate	Sulfide Stress Cracking Test by tensile method (SSC Test)	NACE TM0177 (Method A)
151	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	ADHESIVE	VICAT SOFTENING POINT	ASTM D1525
152	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	ADHESIVE	VICAT SOFTENING POINT	ISO 306
153	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	POLYETHYLENE	VICAT SOFTENING POINT	ASTM D1525
154	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	POLYETHYLENE	VICAT SOFTENING POINT	ISO 306
155	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	CATHODIC DISBONDMENT OF APPLIED COATING (28 days) @ 80°C	ISO 21809-1

SCOPE OF ACCREDITATION

Laboratory Name : QC LAB, CS PLANT, KUTCH WORKS, RATNAMANI METALS & TUBES LTD., SURVEY NO. 474, BHACHAU-ANJAR ROAD, BHIMASAR, ANJAR, GUJARAT, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-7028 **Page No** 10 of 12

Validity 10/04/2022 to 09/04/2024 **Last Amended on** 15/07/2022

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
156	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	CATHODIC DISBONDMENT OF APPLIED COATING (24 HOURS)	CAN/CSA Z245.21
157	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	CATHODIC DISBONDMENT OF APPLIED COATING (24 HOURS)	DIN 30670
158	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	CATHODIC DISBONDMENT OF APPLIED COATING (24 HOURS)	ISO 21809-1
159	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	CATHODIC DISBONDMENT OF APPLIED COATING (28 DAYS) @ 23°C	CAN/CSA Z245.21
160	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	CATHODIC DISBONDMENT OF APPLIED COATING (28 DAYS) @ 23°C	ISO 21809-1
161	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	CATHODIC DISBONDMENT OF APPLIED COATING (28 DAYS) @ 80°C	CAN/CSA Z 245.21
162	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	CATHODIC DISBONDMENT OF APPLIED COATING (30 DAYS) @ 60°C	ASTM G8
163	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	CATHODIC DISBONDMENT OF APPLIED COATING (30 DAYS) @60°C	ASTM G42
164	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	CATHODIC DISBONDMENT OF APPLIED COATING (48 HOURS)	ASTM G 42
165	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	CATHODIC DISBONDMENT TEST OF APPLIED COATING (48 HOURS)	ASTM G8
166	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	ELONGATION OF POLYOLEFIN	ASTM D 638
167	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	ELONGATION OF POLYOLEFIN	DIN 30670
168	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	ELONGATION OF POLYOLEFIN	ISO 527-1
169	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	ELONGATION OF POLYOLEFIN	ISO 527-2
170	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	ELONGATION OF POLYOLEFIN	ISO 527-3
171	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	INDENTATION RESISTANCE @ 23°C	DIN 30670
172	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	INDENTATION RESISTANCE @ 23°C	ISO 21809-1

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Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-7028 **Page No** 11 of 12

Validity 10/04/2022 to 09/04/2024 **Last Amended on** 15/07/2022

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173	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	INDENTATION RESISTANCE @ 80°C	DIN 30670
174	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	INDENTATION RESISTANCE @ 80°C	ISO 21809-1
175	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	SHORE D HARDNESS	ASTM D2240
176	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	SHORE D HARDNESS	ISO 868
177	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	TENSILE STRENGTH OF POLYOLEFIN	ASTM D638
178	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	TENSILE STRENGTH OF POLYOLEFIN	DIN 30670
179	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	TENSILE STRENGTH OF POLYOLEFIN	ISO 527-1
180	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	TENSILE STRENGTH OF POLYOLEFIN	ISO 527-2
181	MECHANICAL- PLASTICS AND PLASTIC PRODUCTS	THREE LAYER POLYETHYLENE (3LPE) COATED STEEL PIPE	TENSILE STRENGTH OF POLYOLEFIN	ISO 527-3
182	NON-DESTRUCTIVE-METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate (Magnetic Particle Testing)	Detection of sub- surface , surface flaws with Non Fluorescent technique	ASTM E-709
183	NON-DESTRUCTIVE-METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate (Magnetic Particle Testing)	Detection of sub surface and surface flaws with Non Fluorescent technique	IS0 10893-5
184	NON-DESTRUCTIVE-METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate (Magnetic Particle Testing)	Detection of sub surface and surface flaws with Non Fluorescent technique	ASME Sec.V, Article-7
185	NON-DESTRUCTIVE-METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate (Radiography Testing Facility)	Detection of flaws with X-Rays by digital image	ASME Sec V - Article 2
186	NON-DESTRUCTIVE-METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate (Radiography Testing Facility)	Detection of flaws with X-Rays by film image	- ISO 10893-6
187	NON-DESTRUCTIVE-METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate (Radiography Testing)	Detection of flaws with X-Rays by film technique	API Spec 5L 46th edition
188	NON-DESTRUCTIVE-METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate (Ultrasonic Testing Facility)	Detection of internal , surface & sub surface flaws	IS0 10893-8
189	NON-DESTRUCTIVE-METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate (Ultrasonic Testing Facility)	Detection of internal , surface & sub surface flaws	IS0 10893-9

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Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-7028	**Page No**	12 of 12
Validity	10/04/2022 to 09/04/2024	**Last Amended on**	15/07/2022

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190	NON-DESTRUCTIVE-METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate (Ultrasonic Testing Facility)	Detection of internal flaws and Detection of surface & sub surface flaws	API Spec 5L, 46th Edition
191	NON-DESTRUCTIVE-METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate (Ultrasonic Testing Facility)	Detection of internal flaws and Detection of surface & sub surface flaws	ASME Sec.V, Article-4 & 5 Edition
192	NON-DESTRUCTIVE-METALS & ALLOYS	Welded Pipe / HR Coil / HR Plate (Ultrasonic Testing Facility)	Detection of internal, surface & sub surface flaws	IS0 10893-11