

Laboratory **Jayasree Reva Phoenix Metrology Private Limited, Reva Complex, No. 14, 4th Cross, Rajarajeswari Nagar, Madipakkam, Chennai, Tamil Nadu**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-6977** Page 1 of 2

Validity **22.04.2019 to 04.03.2020** Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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MECHANICAL TESTING

I. MECHANICAL PROPERTIES OF METALS				
1.	Ferrous & Non Ferrous Metals Including Weld Metals (Sheets, Plates, Wires, Round bars, Shapes, Tubes and Pipes)	Ultimate Tensile Strength	IS 1608	100 MPa to 1800 MPa (0 to 600 kN)
		Yield Strength	ASTM A370 ASTM E8/E8M ISO 6892-1	100 MPa to 1800 MPa (0 to 600 kN)
		Proof Strength at 0.2 % & 0.5% elongation	ASME (Sec IX) Cl.-QW 150	100 MPa to 1800 MPa (0 to 600 kN)
		% Elongation		1 % to 80 %
		% Reduction In Area		2 % to 80 %
		Rockwell Hardness–HRA	ASTM A370	20 HRA to 88 HRA
		Rockwell Hardness–HRB	IS 1586 (Part 1)	30 HRB to 100 HRB
		Rockwell Hardness–HRC	ASTM E18	20 HRC to 70 HRC
		Vickers Hardness – HV	IS 1501 (Part 1) ASTM E92	100 HV to 800 HV (10 kgf and 30 kgf)
		Micro Vickers Hardness–HV	IS 1501 (Part 1) ASTM E384	100 HV to 1000 HV (300 gf, 500 gf and 1000 gf)
	Brinell Hardness – HBW	IS 1500 (Part 1) ASTM E10	100 HBW to 600 HBW (5 mm / 750 kgf and 10 mm / 3000 kgf)	
	Charpy Impact (RT to – 196 °C)	ASTM A370 ASTM E23	4 J to 300 J ('V' Notch)	
2.	Ferrous & Non Ferrous Metals Including Weld Metals (Sheets, Plates, Wires, Round bars, Shapes, Tubes and Pipes)	Bend Test	IS 1599 ASTM A370	Qualitative Mandrel Diameter: (10 mm, 12 mm, 16 mm, 25 mm, 32 mm, 40 mm, 45 mm, 50 mm, 75 mm and 100 mm)

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3.	Ferrous & Non Ferrous Weld Metals (Welded plates, T-joints, Welded Pipes & Tubes)	Bend Test– Face / Root / Side Bend	ASME (Sec IX) Cl.-QW 160 BSEN ISO 5173	Qualitative Mandrel Diameter: (10 mm, 12 mm, 16 mm, 25 mm, 32 mm, 40 mm, 45 mm, 50 mm, 75 mm and 100 mm)
		Fracture	ASME (Sec IX) (Method QW – 182)	Qualitative
4.	High strength deformed steel bars and wires	Re-bend Test	IS 1786	Qualitative Mandrel Diameter: (10 mm, 12 mm, 16 mm, 25 mm, 32 mm, 40 mm, 45 mm, 50 mm, 75 mm and 100 mm)
5.	Ferrous & Non Ferrous Pipes & Tubes (Including Welded Pipes & Tubes)	Flattening	ASTM A370 IS 2328	Qualitative
		Flaring (Flange)	ASTM A370	Qualitative
		Crush	ASTM A370	Qualitative
		Drift Expanding	IS 2335	Qualitative