

Laboratory	Deep Metallurgical Services, 73, New Modella Industrial Estate, Padwal Nagar, Thane, Maharashtra Location 1:73, New Modella Industrial Estate, Padwal Nagar, Thane, Maharashtra Location 2 :15 Old Modella Industrial Estate, Padwal Nagar, Thane, Maharashtra		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	14.07.2014
Certificate Number	T-1336	Valid Until	13.07.2016
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S.No.	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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LOCATION 2 :

I. MECHANICAL PROPERTIES OF MATERIALS

1. Ferrous and non ferrous	Tensile test- Yield Stress/ 0.2% Proof stress U.T.S % Elongation % Reduction of area	IS 1608-05 ASTM A370-2012 ASTM E8M ASME SEC IX - 2013	50N/mm ² to 1000N/mm ² 50N/mm ² to 2000N/mm ² 2% to 90% 2% to 90%
	Rockwell Hardness test	IS1586-PartI-2012 ASTM A370-2012	30 to 99 HRBW & 20 to 70 HRC
	Brinell Hardness test	IS1500-PartI-2013 ASTM A370-2012	2.5Φ187.5kgf/ 101 to 438
	Vickers Hardness test	IS 1501 – 2002	HV1(100-700) HV5 (50-900) HV10(50-800)
	Bend test	IS 1599 – 85(06) ASTM A370-2012 ASME Section IX-2013	Diameter of mandrel (mm) 5,10,12,18,20,30,40,50,60, 80
2. Ferrous	Charpy impact test RT to -46 ⁰ C Izod Impact test at room temp	IS 1757-88 IS 1598-77	0 to 300J 0 to 170J
	3. Ferrous tube & pipe	Flattening test	IS 2328 – 2005 ASTM A370-2012
Flaring test		IS 2330-2011 ASTM A370-2012	10 to 150mm
4. Wires & bar	Upsetting test	IS10167-82	2 to 30mm

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II. METALLOGRAPHY TEST

1.	Ferrous and non ferrous	Microstructure examination	ASM Hand Book Vol9 ASTM E 407-07	50X,100 X,200 X 500 X &1000 X
		Coating thickness	ASTM B 487-85(2013) by microscopic method	0.1mm to 2mm
2.	Ferrous	Grain size	ASTM E112-12	ASTM No1 to 8
		Non Metallic Inclusion rating	IS 4163-04 ASTME45-12 (Method A)	1 to 5
		Decarb-depth Micro- method	IS 6396-00(07)	0.1mm to 1mm
		Macrostructure	ASTM E340-00(06) E381-01(06)	0.67 to 45X Magnification
3.	Cast Iron	Graphite flakes	IS 7754-75(07)	No 1 to 8
4.	Case hardened steel	Total Case depth Microscopic method	IS 6416-88(07)	0.1mm to 5mm
5.	Austenitic stainless steel	IGC Practice A	ASTM A262-12	250X&500X
		IGC Practice B	ASTM A262-12	3mils/year to 40mils/year
		IGC Practice C	ASTM A262-12	3mils/year to 40mils/year
		IGC Practice E	ASTM A262-12	180°/1T

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