

<b>Laboratory</b>	<b>Accurate Metal Test Services, 140, Tejendra Ind. Estate, Cross Road, Odhav, Ahmedabad, Gujarat</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Mechanical Testing</b>	<b>Issue Date</b>	<b>29.09.2015</b>
<b>Certificate Number</b>	<b>T-2067</b>	<b>Valid Until</b>	<b>28.09.2017</b>
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<b>S.No.</b>	<b>Product / Material of Test</b>	<b>Specific Test Performed</b>	<b>Test Method Specification against which tests are performed</b>	<b>Range of Testing / Limits of Detection</b>
<b>I. MECHANICAL PROPERTIES OF MATERIALS</b>				
<b>1.</b>	<b>Ferrous Metals &amp; Non-Ferrous Metals</b>	Tensile Strength	IS 1608: 2005 IS 1786:2008 ASTM A370:2014	50 N/mm <sup>2</sup> to 1500 N/mm <sup>2</sup>
		% Elongation		5 % to 70 %
		Yield Stress		50 N/mm <sup>2</sup> to 1100 N/mm <sup>2</sup>
		0.2% Proof Stress		50 N/mm <sup>2</sup> to 1200 N/mm <sup>2</sup>
		Reduction Area		20 % to 75 %
		Rockwell Hardness Test	IS 1586, Part-1: 2012	55 HRB to 98 HRB 21 HRC to 65 HRC
		Rockwell Superficial Hardness Test		78 to 93 HR 15 T 50 to 82 HR 30 T 25 to 71 HR 45 T
<b>2.</b>	<b>Ferrous Metals and Non Ferrous Metals (Included Welded Materials)</b>	Bend Test	IS 1599:2012 IS 1786:2008 ASME Section IX:2013, QW-160 ASTM A 370:2014	Qualitative (Mandrel Dia: 10mm to 125mm)
<b>3.</b>	<b>Reinforced TMT Bar</b>	Re-bend Test	IS 1786:2008	Qualitative (Mandrel Dia: 10mm to 125mm)
<b>4.</b>	<b>Ferrous Metals</b>	Impact Test Charpy 'V' Notch	IS 1757:1988(RA 2009) IS 3600(2):1985(RA 2003) ASTM A 370:2014	2J to 300J L.C.-2J Ambient to -196°C

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	<b>Ferrous Metals</b>	Nut Proof Load	IS 1367 (Part-6):1994(RA 2004) ASTM A 194:2014a	Qualitative M10 , M12, M16, M20, M24, M33
<b>5.</b>	<b>Ferrous Tubes/Pipes</b>	Flattening & Flaring	IS 2328:2005 ASTM A1016:2014 ASTM A999:2014 IS 3589:2001	Qualitative Outer Dia: 10mm to 400mm
<b>II. METALLOGRAPHY TEST</b>				
<b>1.</b>	<b>SG Iron</b>	Nodularity Nodule Count Nodule size Pearlite/Ferrite	IS 1865:1991(RA 2005)	Qualitative (Magnification:100X)
<b>2.</b>	<b>Ferrous Metals Weldment</b>	Macro etch test	ASME Section IX:2013, QW-183	Qualitative
<b>3.</b>	<b>Steel and Cast Iron</b>	Grain Size	ASTM E 112:2013	Qualitative (ASTM No. 1 to 8 at 100X)
		Microstructure	ASM Handbook Volume-09 ASTM E 407:2007e1	Qualitative (100X,250X, 500X & 100X)

-X-X-X-X-X-X-X-X-X-X-X-X-