

Laboratory Quality Assurance Lab of JSW Steel Limited, Geetapuram, Dolvi,  
Taluka: Pen, Raigad, Maharashtra

Accreditation Standard ISO/IEC 17025: 2017

Certificate Number TC-5585

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Validity 09.08.2019 to 19.03.2021

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed
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**CHEMICAL- TESTING**

I.	METALS & ALLOYS		
1.	Ferrous alloys- Plain Carbon and Low Alloy Steels	Aluminium	IS 8811: 1998
		Aluminium	ASTM E415: 2017
		Boron	IS 8811: 1998
		Boron	ASTM E415: 2017
		Calcium	IS 8811: 1998
		Calcium	ASTM E415: 2017
		Carbon	IS 8811: 1998
		Carbon	ASTM E415: 2017
		Chromium	IS 8811: 1998
		Chromium	ASTM E415: 2017
		Copper	IS 8811: 1998
		Copper	ASTM E415: 2017
		Manganese	IS 8811: 1998
		Manganese	ASTM E415: 2017
		Molybdenum	IS 8811: 1998
		Molybdenum	ASTM E415: 2017
		Nickel	IS 8811: 1998
		Nickel	ASTM E415: 2017
		Niobium	IS 8811: 1998
		Niobium	ASTM E415: 2017
		Nitrogen	IS 228 (Part 23): 2003
		Nitrogen Gas analysis by LECO	ASTM E1019: 2018
		Oxygen Gas analysis by LECO	ASTM E1019: 2018
		Phosphorus	IS 8811: 1998
		Phosphorus	ASTM E415: 2017
		Silicon	IS 8811: 1998
Silicon	ASTM E415: 2017		

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		Sulphur	IS 8811: 1998
		Sulphur	ASTM E415: 2017
		Titanium	IS 8811: 1998
		Titanium	ASTM E415: 2017
		Vanadium	IS 8811: 1998
		Vanadium	ASTM E415: 2017

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**Pooja Singh**  
Convenor

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**Mallika Gope**  
Program Manager

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<b><u>MECHANICAL TESTING</u></b>			
<b>I.</b>	<b>MECHANICAL PROPERTIES OF METALS</b>		
1.	Ferrous Metals and Alloys	Bend test	IS 1599: 2012
		Bend test	ASTM A370: 2017
		Brinell Hardness test, 2.5/187.5 kg and 10mm/ 3000kg load	IS 1500 (Part 1): 2013
		Brinell Hardness test, 2.5/187.5 kg and 10mm/ 3000kg load	ISO 6506 (Part 1):2014
		Brinell Hardness test, 2.5/187.5 kg and 10mm/ 3000kg load	ASTM E10: 2018
		Charpy Impact test at room temperature to - 40°C	IS 1757 (Part 1): 2014
		Charpy Impact test at room temperature to - 40°C	ASTM E23: 2016
		Charpy Impact test at room temperature to - 40°C	ISO 148 (Part 1): 2016
		Erichsen Cupping Test, 2 to 3.5mm thickness	IS 6240: 2008
		Izod Impact Test	IS 1598: 1977
		Izod Impact Test	ASTM E23: 2016
		Rockwell Hardness test- HRBW	IS 1586 (Part 1): 2018

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		Rockwell Hardness test- HRBW	ISO 6508 (Part 1): 2016
		Rockwell Hardness test- HRBW	ASTM E18: 2019
		Rockwell Hardness test- HRC	IS 1586 (Part 1): 2018
		Rockwell Hardness test- HRC	ASTM E18: 2019
		Rockwell Hardness test- HRC	ISO 6508 (Part 1):2016
		Tensile test- Yield Stress / Proof Stress	IS 1608 (Part 1): 2018
		Tensile test- Yield Stress / Proof Stress	ASTM A370: 2017
		Tensile test- Yield Stress / Proof Stress	ISO 6892 (Part 1):2016
		Tensile testing- %Elongation	IS 1608 (Part 1): 2018
		Tensile testing- %Elongation	ISO 6892 (Part 1):2016
		Tensile testing- %Elongation	ASTM A370: 2017
		Tensile testing- %Reduction Area	IS 1608 (Part 1): 2018
		Tensile testing- %Reduction Area	ASTM A370: 2017
		Tensile testing- %Reduction Area	ISO 6892 (Part 1):2016
		Tensile testing- Ultimate Tensile Strength	IS 1608 (Part 1): 2018

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		Tensile testing- Ultimate Tensile Strength	ASTM A370: 2017
		Tensile testing- Ultimate Tensile Strength	ISO 6892 (Part 1):2016
		Vickers Hardness test -HV10	IS 1501 (Part 1): 2013
		Vickers Hardness test -HV10	ASTM E384: 2017
		Vickers Hardness test -HV10	ISO 6507 (Part 1):2018
		Vickers Hardness test-HV5	IS 1501 (Part 1): 2013
		Vickers Hardness test-HV5	ISO 6507 (Part 1):2018
		Vickers Hardness test-HV5	ASTM E384: 2017
<b>II</b>	<b>METALLOGRAPHY TEST</b>		
<b>1.</b>	Ferrous Metals and Alloys	Grain Size by Microscopic Method	IS 4748: 2009
		Determination of nclusion Rating	IS 4163: 2004
		Determination of Inclusion Rating	ASTM E45: 2018
		Estimation of Grain Size by Microscopic Method	ISO 643: 2013
		Grain Size by Microscopic Method	ASTM E112: 2013
		Microstructure Analysis	ASM Metal Handbook Vol 9: 2004