

Laboratory Testing and Calibration Laboratories, Earth Movers Division, BEML Ltd., Kolar Gold Fields, Karnataka

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-8155

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Validity 30.11.2018 to 29.11.2020

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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CHEMICAL TESTING

I.	METALS & ALLOYS			
1.	Carbon and Low Alloy Steel (FE 110)	C	Direct reading optical emission Spectrometer IS 8811:1998	0.035 % to 1.5735 %
		Si		0.167 % to 1.345 %
		Mn		0.182 % to 2.012 %
		S		0.0062 % to 0.0457 %
		P		0.0076 % to 0.066 %
		Cr		0.110 % to 3.54 %
		Mo		0.112 % to 0.594 %
		Ni		0.015 % to 4.212 %
		B		0.0012 % to 0.0141 %
		V		0.085 % to 0.595 %
2.	High Manganese Steel (Fe160 & 161)	C	Direct reading optical emission Spectrometer ASTM E 2209-13	0.34 % to 1.848 %
		Si		0.632 % to 1.86 %
		Mn		5.92 % to 22.32 %
		S		0.0072 % to 0.066 %
		P		0.0056 % to 0.087 %
		Cr		0.32 % to 4.176 %
		Mo		0.152 % to 2.424 %
Ni	0.192 % to 1.788 %			

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MECHANICAL TESTING

I.	MECHANICAL PROPERTIES OF METALS			
1.	Ferrous & Non-Ferrous and Its Alloys	Rockwell Hardness -C Scale	IS 1586 (Part 1): 2018	20 HRC to 70 HRC
		Rockwell Hardness -B Scale	IS 1586 (Part 1): 2018	40 HRBW to 100 HRBW
		Brinell Hardness	IS1500 (Part 1): 2013	100 HBW to 650 HBW (10/3000)
		Micro Vickers Hardness	IS 1501(Part 1): 2013	100 HV to 900 HV (HV 0.5)