

Laboratory **Kiswok Industries Pvt. Ltd., Bipranna Para, Via Begri, Domjur,
Howrah, West Bengal**

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

Certificate Number **TC-7913 (in lieu of T-4165 & T-4166)**

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Validity **29.09.2018 to 28.09.2020**

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.	Cast Iron	Wet Method		
		Carbon	IS 12308 (Part 11)	1.50 % to 4.50 %
		Silicon	IS 12308 (Part 6)	1.0 % to 4.00 %
		Manganese	IS 12308 (Part 10)	0.60 % to 2.00 %
		Phosphorous	IS 12308 (Part 5)	0.60 % to 2.00 %
		Optical Emission Spectrometer		
		Carbon	IS 15338	0.50 % to 4.50 %
		Silicon	IS 15338	1.00 % to 4.00 %
		Manganese	IS 15338	0.10 % to 2.00 %
		Phosphorous	IS 15338	0.01 % to 2.00 %
		Sulphur	IS 15338	0.005 % to 0.50 %
		Chromium	IS 15338	0.001 % to 5.00 %
		Copper	IS 15338	0.01 % to 2.0 %
		Magnesium	IS 15338	0.020 % to 0.10 %

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MECHANICAL TESTING

I.	MECHANICAL PROPERTIES OF METALS			
1.	Ferrous Metals and Alloys	Tensile Test (Y.S, P.S, U.T.S, and El %)	IS 1608	12 kN to 200 kN load (MU: (±) 0.51 %)
2.	Metallic Materials	Brinell Hardness Test	IS 1500 (Part 1)	152 HBW to 325 HBW 5/750 (MU: (±) 1.45 %) 135 to 375 10/3000 (MU: (±) 1.31 %)
II.	METALLOGRAPHY TEST			
1.	Ferrous Metals & Alloy	Microstructure Examination	ASM handbook Vol. 9: 2004 (Metallography & Microstructure of Ferrous Alloys, Page. 565-587) IS 7739 (Part 1) IS 7739 (Part 5)	Magnification (100 x,200 x,500 x)
		Graphite, Size & Distribution	IS 7754 (By Comparison Method)	Magnification (100 x,200 x,500 x)