

Laboratory Therapeutics Chemical Research Corporation, 25-12-39, 2nd Floor,
Godeyvari Street, Ward-25, Visakhapatnam, Andhra Pradesh

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7850 (in lieu of T-4178)

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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.	ORES & MINERALS			
1.	Iron ore	Silica	IS 1493 (Part 1):1981 (RA 2016)	0.5 % to 10 %
		Total Iron	IS 1493 (Part 1):1981 (RA 2016)	40 % to 69 %
		Alumina	IS 1493 (Part 1):1981 (RA 2016)	0.5 % to 10 %
		Phosphorus	IS 1493 (Part 1):1981 (RA 2016)	0.01 % to 1.0 %
		Sulphur	IS 1493 (Part 1):1981 (RA 2016) Lab Validation Method	0.005 % to 0.30 %
		Moisture	IS 1493 (Part 1):1981 (RA 2016) & IS 11690:1986 (RA 2008)	2 % to 15 %
		Transportable Moisture Limit(TML)/Flow Moisture Point (FMP)	IMSBC CODE:2018 (Appendix-2)	5 % to 17 %
		TML(Modified Proctor/ Fagerberg)	IMSBC CODE:2018 (Appendix-2)	5 % to 15 %
2.	Manganese Ore	Silica	IS 1473:2004 (RA 2016)	0.5 % to 20 %
		Manganese	IS 1473:2004 (RA 2016)	10 % to 50 %
		Total Iron	IS 1473:2004 (RA 2016)	1.0 % to 30 %
		Alumina	IS 1473:2004 (RA 2016)	0.35 % to 10 %
		Phosphorus	IS 1473:2004 (RA 2016)	0.01 % to 0.50 %
		Moisture	IS 1473:2004 (RA 2016) & IS 1449:2010 (RA 2016)	1.0 % to 15 %

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II.	SOLID FUELS			
1.	Coal / Coke	Total Moisture	IS1350 (Part 1):1984 (RA 2013)	1.0 % to 30 %
		Proximate Analysis:		
		Moisture	IS1350 (Part 1):1984 (RA 2013)	0.1 % to 25 %
		Volatile Matter	IS1350 (Part 1):1984 (RA 2013)	1.0 % to 45 %
		Ash	IS1350 (Part 1):1984 (RA 2013)	2.0 % to 35 %
		Fixed Carbon	By calculation	
		Sulphur	IS1350 (Part III):1969 (RA 2015)	0.1 % to 1.5 %
		Gross Calorific Value(GCV)	IS 1350 (Part II):2017	2000 kcal/kg to 8000 kcal/kg