

Laboratory CCIC India Private Limited, Old No. 100, New No. 96, 1st Floor, East Madha Church Street, Royapuram, Chennai, Tamil Nadu

Accreditation Standard ISO/IEC 17025: 2017

Certificate Number TC-8251

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Validity 01.01.2019 to 31.12.2020

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	Total Moisture	IS 1493 (Part 1)-1981 (RA 2016)	2.0 % to 16.0 %
		Iron	IS 1493 (Part 1)-1981 (RA 2016)	20.0 % to 68.0 %
		Silica	IS 1493 (Part 1)-1981 (RA 2016)	0.5 % to 15.0 %
		Alumina	IS 1493 (Part 1)-1981 (RA 2016)	0.5 % to 10.0 %
		Phosphorous	IS 1493 (Part 1)-1981 (RA 2016)	0.05 % to 0.20 %
		Sulphur	IS 1493 (Part 1)-1981 (RA 2016)	0.01 % to 0.02 %
2.	Coal/Coke	Total Moisture	IS 1350 (Part 1)-1984 (RA 2013)	5 % to 50.0 %
		Moisture(ADB)	IS 1350 (Part 1)-1984 (RA 2013)	0.5 % to 25.0 %
		Ash	IS 1350 (Part 1)-1984 (RA 2013)	0.2 % to 30.0 %
		Volatile Matter	IS 1350 (Part 1)-1984 (RA 2013)	5.0 % to 50.0 %
		Fixed Carbon	IS 1350 (Part 1)-1984 (RA 2013)	20.0 % to 90.0 %
		Gross Calorific Value	IS 1350 (Part 2)-2017 ISO 1928 : 2009	1000 Kcal/kg to 8900 Kcal/kg
		Sulphur	IS 1350 (Part 3)-1969 (RA 2015)	0.01 % to 8.0 %
3.	Bauxite	Moisture	ISO 9033-1989	1.0 % to 20.0 %
		Ferric Oxide	IS 2000 (Part 4)-1985 (RA 2017)	4.0 % to 30.0 %

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		Silica	IS 2000 (Part 2)-1985 (RA 2017)	0.5 % to 10.0 %
		Alumina	IS 2000 (Part 3)-1985 (RA 2017)	30.0 % to 62.0 %
		Loss on Ignition	IS 2000 (Part 1)-1985 (RA 2017)	10.0 % to 30.0 %
4.	Barites	Loss on drying	IS 7588-1992 (RA 2016)	0.1 % to 10.0 %
		Density	API SPEC 13A/ISO 13500 18 th Edition, February 2010	3.400 g/ml to 4.500 g/ml
		Water soluble alkaline earth metal as calcium	API SPEC 13A/ISO 13500 18 th Edition, February 2010	20 mg/kg to 500 mg/kg
		Fineness:(Sample retained through 75 micron IS-Sieve)	IS 2881-1984 (RA 2015)	0.3 % to 5.0 %
		Barium Sulphate	IS 7588-1992 (RA 2016)	50 % to 95.0 %
		Silica	IS 2881-1984 (RA 2015)	2.0 % to 25.0 %
		Carbonates	IS 7588-1992 (RA 2016)	100 mg/kg to 5000 mg/kg