

Laboratory Inspectorate Griffith India Pvt. Ltd., Goa Laboratory, 14/253 (8), 2nd Floor, Pereira Chambers, Pe Jose Vaz Road, City Area, Vasco Da Gama, Goa

Accreditation Standard ISO/IEC 17025: 2017

Certificate Number TC-7902

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Validity 23.08.2019 to 25.09.2020

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	Total Iron (Fe)	IS 1493 (Part 1): 1981 (RA 2016)	10 % to 70 %
		Silica (SiO ₂)	IS 1493 (Part 1): 1981 (RA 2016)	0.5 % to 15.0 %
		Alumina (Al ₂ O ₃)	IS 1493 (Part 1): 1981 (RA 2016)	0.2 % to 7.0 %
		Sulphur (S)	IS 1493: 1959 (RA 2016)	0.003 % to 1.00 %
		Phosphorous (P)	IS 1493 (Part 1): 1981 (RA 2016)	0.005 % to 1.00 %
		Total Moisture (TM)	IS 1493 (Part 1): 1981 (RA 2016)	0.05 % to 15.0 %
		Loss on Ignition (LOI)	IGI/TPM/LAB/GOA/3.5 Issue No.: 04, Rev. no. 01, Issue Date: 14.08.2018	0.2 % to 15.00 %
2.	Bauxite	Total Alumina (Al ₂ O ₃)	IS 2000 (Part 3): 1985 (RA 2017)	2.0 % to 75 %
		Ferric Oxide (Fe ₂ O ₃)	IS 2000 (Part 4): 1985 (RA 2017)	0.5 % to 30 %
		Silica (SiO ₂)	IS 2000 (Part 2): 1985 (RA 2017)	0.5 % to 30 %
		Loss on Ignition (LOI)	IS 2000 (Part 1): 1985 (RA 2017)	2.0 % to 40 %
II.	SOLID FUELS			
1.	Coal	Total Moisture (TM)	IS 1350 (Part 1): 1984 (RA 2017)	0.10 % to 40 %
		Ash	IS 1350 (Part 1): 1984 (RA 2017)	2 % to 50 %

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		Volatile Matter (VM)	IS 1350 (Part 1): 1984 (RA 2017)	0.5 % to 50 %
		Fixed Carbon (FC)	IS 1350 (Part 1): 1984 (RA 2017)	Qualitative (By Calculation)
		Gross Calorific Value (GCV)	IS 1350 (Part 1): 1984 (RA 2017) ASTM D 5865-13	2000 kcal/kg to 8000 kcal/kg
		Sulphur (S)	IS 1350 (Part 3): 1969 (RA 2015)	0.05 % to 6 %
		Moisture	IS 1350 (Part 1): 1984 (RA 2017)	0.10 % to 30 %
2.	Coke	Total Moisture (TM)	IS 1350 (Part 1): 1984 (RA 2017)	0.10 % to 30 %
		Moisture	IS 1350 (Part 1): 1984 (RA 2017)	0.10 % to 10 %
		Ash	IS 1350 (Part 1): 1984 (RA 2017)	2 % to 50 %
		Volatile matter (VM)	IS 1350 (Part 1): 1984 (RA 2017)	0.50 % to 10 %
		Fixed carbon (FC)	IS 1350 (Part 1): 1984 (RA 2017)	By Calculation
		Phosphorus (P)	IS 1350 (Part 5): 1979 (RA 2017)	0.005 % to 0.50 %
		Sulphur (S)	IS 1350 (Part 3): 1969 (RA 2015)	0.05 % to 6 %

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