

Laboratory **Quality Assurance Laboratory, Tata Metaliks Limited - Kharagpur,  
P.O. - Somraipur, Paschim Midnapur, Kharagpur,  
West Bengal**

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

Certificate Number **TC-7321 (in lieu of T-1111)**

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Validity **29.05.2018 to 28.05.2020**

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**

<b>I.</b>	<b>SOLID FUELS</b>			
1.	Coal & Coke	Ash	IS 1350(Part-I) 1984	5% to 25%
		Volatile Matter	RA 2013	0.2% to 30%
<b>II.</b>	<b>METALS &amp; ALLOYS</b>			
1.	Cast Iron	C	ASTM E1999-11	3.00% to 4.3%
		Si	(Spark AES)	0.5% to 3.5%
		Mn		0.01% to 1.5%
		S		0.015% to 0.100%
		P		0.030% to 1.2%
		Ti		0.05% to 0.15%
<b>III.</b>	<b>ORES &amp; MINERALS</b>			
1.	Iron Ore	Fe	TML/LAB/SOP/02	50% to 70%
		SiO <sub>2</sub>	Issue No.01	0.5% to 15%
		Al <sub>2</sub> O <sub>3</sub>	Issue Date 10.08.2015	0.5% to 5%
		P	(XRF Press Pellet method)	0.01% to 0.2%
2.	Sinter	Fe	TML/LAB/SOP/02	50% to 70%
		CaO	Issue No.01	5% to 15%
		MgO	Issue Date 10.08.2015	1% to 5%
		SiO <sub>2</sub>	(XRF Press Pellet method)	2% to 10%
		Al <sub>2</sub> O <sub>3</sub>		1% to 5%
		P		0.02% to 0.2%
3.	Lime stone	Fe <sub>2</sub> O <sub>3</sub>	TML/LAB/SOP/02	0.05% to 2%
		CaO	Issue No.01	45% to 60%
		SiO <sub>2</sub>	Issue Date 10.08.2015	0.1% to 10%
		MgO	(XRF Press Pellet method)	0.1% to 5%
		Al <sub>2</sub> O <sub>3</sub>		0.1% to 5%

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4.	Dolomite	Fe <sub>2</sub> O <sub>3</sub>	TML/LAB/SOP/02	0.1% to 2%
		CaO	Issue No.01	20% to 35%
		SiO <sub>2</sub>	Issue Date 10.08.2015	0.1% to 5%
		MgO	(XRF Press Pellet method)	15% to 30%
		Al <sub>2</sub> O <sub>3</sub>		0.1% to 5%
5.	Slag	FeO	TML/LAB/SOP/02	0.1% to 2%
		CaO	Issue No.01	20% to 40%
		SiO <sub>2</sub>	Issue Date 10.08.2015	20% to 40%
		MgO	(XRF Press Pellet method)	2% to 15%
		Al <sub>2</sub> O <sub>3</sub>		10% to 25%