

Laboratory	Sunflag Laboratory, Sunflag Iron & Steel Co. Ltd., Bhandara Road, Distt. Bhandara, Maharashtra		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	05.04.2014
Certificate Number	T-1237	Valid Until	04.04.2016
Last Amended on	-	Page	1 of 4

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
--------------	---------------------------------------	--------------------------------	--	---

I. METALS & ALLOYS

1.	Ferrous		By Spectrometer Analysis	
	a) Round	C	IS 8811-1998	0.01 to 1.5%
	b) Wire Rod			
	c) Flat	Mn	IS 8811-1998	0.01 to 2.0%
	d) RCS			
	e) Hexagons	P	IS 8811-1998	0.005 to 0.10%
	f) Angles	S	IS 8811-1998	0.005 to 0.10%
		Si	IS 8811-1998	0.05 to 2.0%
		Cu	IS 8811-1998	0.01 to 0.50%
		Cr	IS 8811-1998	0.05 to 5.0%
		Ni	IS 8811-1998	0.05 to 5.0%
		Mo	IS 8811-1998	0.01 to 1.5%
		V	IS 8811-1998	0.01 to 1.0%
		Al	IS 8811-1998	0.005 to 0.15%
		Ti	IS 8811-1998	0.01 to 0.25%
		B	IS 8811-1998	0.005 to 0.01%
		Pb	LPM/SL/18	0.0013 to 0.5%

Laboratory	Sunflag Laboratory, Sunflag Iron & Steel Co. Ltd., Bhandara Road, Distt. Bhandara, Maharashtra		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	05.04.2014
Certificate Number	T-1237	Valid Until	04.04.2016
Last Amended on	-	Page	2 of 4

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Ferrous	C	IS 9879-1998	0.005 to 0.3%
	a) Round			
	b) Wire Rod	Mn	IS 9879-1998	0.1 to 5.0%
	c) Flat			
	d) RCS	P	IS 9879-1998	0.002 to 0.10%
	e) Hexagons			
	f) Angles	S	IS 9879-1998	0.002 to 0.10%
		Si	IS 9879-1998	0.10 to 2.0%
		Cu	IS 9879-1998	0.05 to 0.50%
		Cr	IS 9879-1998	5.0 to 20.0%
		Ni	IS 9879-1998	2.0 to 15.0%
		Mo	IS 9879-1998	0.01 to 3.0%
		C	ASTM E 1086-94	0.005 to 0.25%
		Mn	ASTM E 1086-94	0.01 to 2.0%
		P	ASTM E 1086-94	0.003 to 0.15%
		S	ASTM E 1086-94	0.003 to 0.065%
		Si	ASTM E 1086-94	0.01 to 0.90%
		Cu	ASTM E 1086-94	0.01 to 0.30%

Laboratory	Sunflag Laboratory, Sunflag Iron & Steel Co. Ltd., Bhandara Road, Distt. Bhandara, Maharashtra		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	05.04.2014
Certificate Number	T-1237	Valid Until	04.04.2016
Last Amended on	-	Page	3 of 4

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Ferrous	Cr	ASTM E 1086-94	17.0 to 23.0%
	a) Round	Ni	ASTM E 1086-94	7.5 to 13.0%
	b) Wire Rod	Mo	ASTM E 1086-94	0.01 to 3.0%
	c) Flat	C	ASTM E 415-99a	0.08 to 1.1%
	d) RCS	Mn	ASTM E 415-99a	0.1 to 2.0%
	e) Hexagons	P	ASTM E 415-99a	0.02 to 0.085%
	f) Angles	S	ASTM E 415-99a	0.01 to 0.055%
		Si	ASTM E 415-99a	0.07 to 1.15%
		Cu	ASTM E 415-99a	0.04 to 0.50%
		Cr	ASTM E 415-99a	0.02 to 2.25%
		Ni	ASTM E 415-99a	0.02 to 5.0%
		Mo	ASTM E 415-99a	0.03 to 0.6%
		V	ASTM E 415-99a	0.004 to 0.30%
		Al	ASTM E 415-99a	0.02 to 0.075%
		Ti	ASTM E 415-99a	0.004 to 0.20%
		B	ASTM E 415-99a	0.002 to 0.007%
		Ca	ASTM E 415-99a	0.001 to 0.003%

Laboratory Sunflag Laboratory, Sunflag Iron & Steel Co. Ltd., Bhandara Road,
 Distt. Bhandara, Maharashtra
Accreditation Standard ISO/IEC 17025: 2005
Discipline Chemical Testing **Issue Date** 05.04.2014
Certificate Number T-1237 **Valid Until** 04.04.2016
Last Amended on - **Page** 4 of 4

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Ferrous	C	ASTM E 1019-3	0.001 to 4.5%
	a) Round		By LECO	
	b) Wire Rod	S	(Combustion Infra Red	0.002 to 0.35%
	c) Flat		Absorption Method)	
	d) RCS			
	e) Hexagons			
	f) Angles			

-X-X-X-X-X-X-X-X-X-X-X-X-