

TEST CERTIFICATE

CUSTOMER		Technofour Engineers		PROCESS ROUTE		TRUCK NO		MHZLAB2727		TC NO		1802876	
				BF-FOE-LR-VD-COM-RN/S		INVOICE NO		SE17Y-12938		DATE		26.02.2018	
CUSTOMER SPECIFICATION				HEAT NO		NO OF BUNDLES		QUANTITY (MT)		LENGTH (IN MM)			
				4390				26.070		4-6			
SUPPLY CONDITION				REDUCTION RATIO						COLOR CODE			
AS ROLLED				20.4:1						White Base One Green & One Yellow strip			


CHEMICAL COMPOSITION																								
%	C	Si	Mn	P	S	Cr	Mo	Ni	Al	Sol Al	V	Ti	Cu	B	Nb	Ca	As	Sb	Sn	Pb	W	Bi	Co	Zr
Min	0.17	0.10	0.60	-	0.020	0.35	0.15	0.35	0.020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Max	0.23	0.25	0.95	0.035	0.035	0.65	0.25	0.75	0.040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Actual	0.19	0.19	0.84	0.012	0.031	0.567	0.201	0.462	0.026	-	0.004	0.0012	0.022	0.0005	0.0009	0.0011	0.0019	0.0013	0.002	0.0043	0.0001	0.0047	0.001	-
H2(ppm)	N2(ppm)	O2(ppm)	CE	DI	Bsol																			
Min	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Max	3	90	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Actual	1.56	86.9	17.2	0.51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PHYSICAL PROPERTIES														
Test Condition		YS	UTS	%EL	%RA	Impact Strength (J)	Hardness	Roll	Quench	Jominy Values (in HRC)	J4/16"	UPset	Macro etch (ASTM E-381)	100% MPI, UT & SPARK DONE
Min	-	-	-	-	-	-	BHN	-	-	-	35	-	-	-
Max	-	-	-	-	-	-	BHN	250	-	-	39	-	-	-
Actual	-	-	-	-	-	-	BHN	184-189	-	-	37.7	-	-	-

Inclusion Rating (As per ASTM E-45)										
A		B		C		D		Decarb (mm)	Banding (Microns)	Step Down
T	H	T	H	T	H	T	H			
Spec	2.5	1.0	2.0	1.0	2.0	1.0	2.0	1.0	-	-
Actual	2.0	0.5	1.0	-	-	-	-	1.0	-	-

SURFACE DEFECTS	
Free from Radioactive Elements	FREE FROM DEFECTS
OK	OK

Remarks: Uniform Pearlite + Ferrite.	
Material is conforming to the customer specification.	

 PREPARED BY SEETHARAMA K		AUTHORISED SIGNATORY C.M. WALVEKAR	
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