

RAW MATERIAL INCOMING INSPECTION REPORTS

D.C. No. :- F/05/01
Issue no. :- 01, 01.07.2018
Rev. no. :- 02, 11.05.23

1770 SECTION :- 60mm
STEEL SUPPLIER :- SLR
STEEL TC NO :- 85030359
HAET NO :- 54466
REC.QTY :- 32480kg
NO. OF BARS :- 244
INVOICE NO. :- 16625
INVOICE DATE :- 8/3/23

Process / Mfg Route: MRF - EAF - LRF - VD - CCM - FMS - AMLC - RMC

%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%Al	%Cu	%As	%Sb	%V	%Pb	%Ca	%Nb	%Ti	%B
0.230	0.800	0.150	0.015	1.000	1.300	0.300	0.100	0.020	-	-	-	-	-	-	-	-	-
0.400	1.100	0.400	0.030	0.020	1.300	0.300	0.100	0.050	0.300	0.0010	0.000	0.006	0.0010	0.0007	0.0008	0.0005	
0.378	1.080	0.260	0.024	0.010	1.264	0.018	0.007	0.034	0.018	0.0010	0.000	0.006	0.0010	0.0007	0.0008	0.0005	
0.386	1.078	0.259	0.024	0.015	1.286	0.019	0.002	0.032	0.011	-	-	0.004	-	-	0.003	0.004	

Bar Size (As per WI...): Qty: 10 % Of Total Heat

S.NO.	1	2	3	4	5	6	7	8	9	10	11	12
Diameter/Section Size (In mm)	60.3	60.1	60.5	60.2	60.6	60.1	60.0	60.4	60.7	60.3	60.6	60.2

Gas Content (PPM): As per Mill Tc

	N2	H2	O2
Min	60	-	-
Max	180	2.5	20
Value	-	-	-
Mill Tc	82.4	1.16	13.9

Steel Supply Condition: Hot Rolled

MACRO

(i) Internal soundness Sample : (ASTM E381 or as per customer) S2 R2 C2 MAX Value Obs.

(ii) Dendrite structure 01 sample : S2 R2 C2

(iii) Step Down Test Sample : (IS4075 or as per customer) OK

Micro structure As Rolled : Pearlite + Ferrite

Mill Tc : Pearlite + Ferrite

SSB : Pearlite + Ferrite

ULTRASONIC TEST (AS PER ASTM A388) : Mill Tc 100% Done

INCLUSION RATING (IS 14163 /ASTM: E45A OR REQUIRED BY CUSTOMER)

	A Sulphide		B Aluminate		C Silicate		D Oxide		DS	
	TN	TK	TN	TK	TN	TK	TN	TK	TN	TK
Cust Spec. If Any	2.0	1.5	2.0	1.0	0.5	0.5	1.0	1.0	-	-
Mill Tc	1.5	0.5	0.5	0.0	0.0	0.0	1.0	0.0	-	-
SSB	1.5	0.5	0.5	0.0	0.0	0.0	1.0	0.0	-	-

GRAIN SIZE : Spec:- 5-8 Mill Tc 8 SSB 7

(ASTME112 / IS-4748)

JOMINY HARDENBILITY IS-3848 /ASTMA255 (As per required by Customer)

Distance	1.5	3	5	7	9	11	13	15	20	25	30
Specified	25-58	58	51-57	50-56	49-55	45-54	44-54	42-52	39-50	37-50	36-46
Mill Tc	52.5	56.0	55.7	54	53.5	52	52.5	51	50	46	44
Observed	58	57	56	55	53	52	52.5	51	50	46	44

MECHANICAL PROPERTIES : (If Required in TDC/Customer)

	As per IS:1608/ ASTM A 370			As per IS: 1757	
	U.T.S N/mm2 /MPA	Y.S N/mm2 /MPA	%EL	IMPACT VALUE CHARRY	IMPACT VALUE IZOD
Specified	880-1080	685 min	12 min	25 J	-
Observed	1067-118	707-880	25.64	38 J	-

As Rolled Hardness (BHN (Max / Min) (If Required in TDC/Customer)

	1	2	3	4	5
Observed	195	198	200	205	202

VISUAL :

(i) Surface Condition 100 % Bars Checked OK

(ii) Heat No. 100 % Bars Checked OK

(iii) Color Code. 100 % Bars Checked OK

REDUCTION RATIO : Specifiy 7:1 min BLOOM SIZE - 200x200 REDUCTION RATIO : 1415 : 1

(If Required in TDC/Customer) As Per Mill Tc

DECARB LEVEL : (AS PER IS:6396 /ASTM E1077)

	Specified	Observed	PD	FD
Observed	0.60 mm Max	0.18	-	-

UPSETIBILITY TEST (AS PER IS:10167) : OK

Test Certificate verified for Each Heat no :	Available & Ok	Not Available	Not Conforming
	✓		

TDC / Customer STD (If Required in TDC/Customer) SSB/TDC/ F1001R3 Mill Tc No. 85030359 Mill Tc Date 8/3/23 Verified By [Signature]

MIX UP TEST (If Required in TDC/Customer) Verified By Mobile Spectro /X-Ray Gun/Spark Test

Accepted [Signature] Rejected [Signature]

Other Remarks : [Signature]

Checked By [Signature] Approved By [Signature]