



RAW MATERIAL INCOMING INSPECTION REPORTS

D.C. No. :- F/05/01
Issue no. :- 01, 01.07.2018
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Report No.	1756	SECTION :-	70MM	HAET NO. :-	59635	INVOICE NO. :-	SF24Y-14508											
DATE :-	9/3/2025	STEEL SUPPLIER :-	SLR	REC.QTY :-	17090	INVOICE DATE :-	30/01/2025											
GRADE :-	20MNCRS	STEEL TC NO. :-	25011642	NO. OF BARS :-														
Process / Mfg Route																		
(01) Chemistry	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%Al	%Cu	%As	%Sb	%V	%Pb	%Ca	%Nb	%Ti	%B
Min	0.150	1.000	0.180	0.015	-	1.000	-	-	0.020	-	-	-	-	-	-	-	-	-
Max	0.200	1.700	0.400	0.030	0.020	1.700	0.900	0.100	0.050	0.700	-	-	-	-	0.0010	-	-	0.0005
Mill Tc Value	0.170	1.230	0.220	0.022	0.017	1.244	0.012	0.006	0.027	0.016	0.0010	0.0001	0.0006	0.0010	0.0008	0.0005	0.0002	0.0005
Spectro Value	0.170	1.234	0.218	0.024	0.018	1.256	0.015	0.007	0.023	0.010	-	-	0.004	-	-	0.001	0.002	0.0007

(02) Bar Size (As per WI...)	Qty: 10 % Of Total Heat	Diameter/Section Size (In mm)
No of Bar Checked	S.NO.	1 2 3 4 5 6 7 8 9 10 11 12
		70.1 70.2 70.3 70.4 70.6 70.7 70.4 70.6 70.9 70.5

(03) Gas Content (PPM): As per Mill Tc	N2	H2	O2
Min	60.0	-	-
Max	120.0	250	20.0
Value			
Mill Tc	75.0	158	15.4

(04) Steel Supply Condition:	As Rolled
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(05) MACRO	(i) Internal soundness Sample : (ASTM E381 or as per customer)	S3 R3 C2
	(ii) Dendrite structure 01 sample :	Value Obs. 752 722 722
	(iii) Step Down Test Sample : (IS4075 or as per customer)	OK

(06) Micro structure As Rolled :	Micro structure : (or as per customer)	Ferrite + Pearlite
	Mill Tc	P + F
	SSB	

(07) ULTRASONIC TEST (AS PER ASTM A388) :	Mill Tc	OK
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(08) INCLUSION RATING (IS 14163 /ASTM: E454 OR REQUIRED BY CUSTOMER)	A	B	C	D	DS					
	Sulphide	Aluminate	Silicate	Oxide						
	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	1.0	0.5	0.5	0	0	0	0.5	0	-	-
SSB	1.0	0.5	0.5	0	0	0	0.5	0	-	-

(09) GRAIN SIZE :	Spec. :-	5-8	Mill Tc	7.5	SSB	7.0
(ASTME112 / IS-4748)						

(10) JOMINY HARDENILITY IS-3848 /ASTMA255 (As per required by Customer)	Distance	J1.5	J3	J10	J15	J20	J25	J30						
	Specified	410-460	380-440	320-385	290-355	270-335	255-320	245-310						
	Mill Tc	44.4	41.6	34.7	30.9	28.8	26.6	25.4						
	Observed	42	40	34	30	27	25.5	24.5						

(11) MECHANICAL PROPERTIES : (If Required In TDC /Customer)	As per IS:1608/ ASTM A 370	As per IS: 1757				
	U.T.S	Y.S	N/mm2	%EL	IMPACT VALUE CHERRY	IMPACT VALUE IZOD
	N/mm2/MPA	MPA				
Specified	1230-1570	930 Min	7 min	25.27%	25.7 min	
Observed	1271, 734	1271, 734				
As Rolled Hardness (BHN (Max / Min) (If Required In TDC /Customer)	1	2	3	4	5	
	165	166	168	169	170	

(12) VISUAL :	(i) Surface Condition	100 % Bars Checked	OK
	(ii) Heat No.	100 % Bars Checked	OK
	(iii) Color Code.	100 % Bars Checked	OK

(13) REDUCTION RATIO :	Specify	7.1 min	BLOOM SIZE - 200 X 200	REDUCTION RATIO : 10-37.1
(If Required In TDC /Customer)	As Per Mill TC			

(14) DECARB LEVEL : (AS PER IS 6396 /ASTM E1077)	Specified	0.60 max			
(If Required In TDC /Customer)	Observed	PD	0.21	FD	

(15) UPSETIBILITY TEST (AS PER IS 10167) :	OK
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(16) Test Certificate verified for Each Heat no :	Available & Ok	Not Available	Not Conforming
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(17) TDC / Customer STD (If Required In TDC /Customer)	SSB/TDC/	Mill Tc No.	25011642	Mill Tc Date	30/01/2025	Verified By :	
	QF1001, Rev N.02.918		12/05/2020				

(18) MIX UP TEST (If Required In TDC /Customer)	Verified By Mobile Spectra /X-Ray Gun/Spark Test	Accepted	Rejected
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Other Remarks	Approved By
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