

REPORT NO	1285	SECTION :-	8mm	HAET NO :-	55061	INVOICE NO.-	SE244-18096									
DATE	21/12/25	STEEL SUPPLIER :-	SLR	REC.QTY :-	15900kg	INVOICE DATE:-	21/12/25									
GRADE :-	20mmC45H1	STEEL TC NO :-	25031269	NO. OF BARS :-	74											
(01) Process / Mill Route	MPF - EBF - CRF - UP - CCM CEMS / AMLC - RMS															
Chemistry	%C	%Mn	%Si	%P	%S	%Cr	%Ni	%Mo	%Al	%Cu	%As	%Sb	%V	%Nb	%Ti	%B
Min	0.120	1.100	0.150	0.002	0.002	1.00	-	-	0.020	-	-	-	-	-	-	-
Max	0.230	1.400	0.400	0.040	0.035	1.300	-	-	0.040	-	-	-	-	-	-	-
Mill Tc Value	0.192	1.210	0.225	0.022	0.015	1.140	0.019	0.009	0.024	0.013	0.0010	0.001	0.002	0.0000	0.0007	0.0031
Spectro Value	0.195	1.217	0.233	0.027	0.016	1.130	0.024	0.005	0.026	0.017	-	-	0.004	-	0.0030	0.007

(02) Bar Size (As per WI...)	Qty : 10 % Of Total Heat											
No of Bar Checked	Diameter/Section Size (In mm)											
S.NO.	1	2	3	4	5	6	7	8	9	10	11	12
	80.3	80.1	80.5	80.2	80.0	80.3	80.2	80.4	80.2	80.5	80.1	80.3

(03) Gas Content (PPM): As per Mill Tc	N2	H2	O2
Min			
Max	90	2	20
Value			
Mill Tc	71	1.13	15.6

(04) Steel Supply Condition:	Hot Rolled
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(05) MACRO (i) Internal soundness Sample : (ASTM E381 or as per customer)	S2 R2 C2 MAX
Value Obs.	92 R2 C2
(ii) Dendrite structure 01 sample :	
(iii) Step Down Test Sample : (IS4075 or as per customer)	OK

(06) Micro structure As Rolled :	Micro structure : (or as per customer)
Mill Tc	11.5mm Pearlite + Ferrite
SSB	Pearlite + Ferrite

(07) ULTRASONIC TEST (AS PER ASTM A388) :	MIX Tc	100% Done OK
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(08) 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	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Mill Tc	1	0.5	0.5	0	0	0	0.5	0.5		
SSB	1	0.5	0.5	0	0	0	0.5	0.5		

(09) GRAIN SIZE : (ASTME112 / IS-4748)	Spec.:-	5 or finer	Mill Tc	7.5	SSB
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(10) JOMINY HARDENBILITY IS-3848 /ASTMA255 (As per required by Customer)	Distance	1.5	3	5	7	9	11	13	15	20	25		
Specified	41-46	38-45	34-42	34-41	31-38	29-36	28-34	26-32	23-31	21-28			
Mill Tc	44.8	40.3	40.5	38.9	34	31.6	29.3	28.3	27.2	25.7			
Observed	45	44	42	40	37	33	31	30	27	25			

(11) MECHANICAL PROPERTIES : (If Required in TDC/Customer)	As per IS:1608/ ASTM A 370				As per IS: 1757	
	U.T.S	YS	N/mm2	%EL	IMPACT VALUE	IMPACT VALUE
	N/mm2 /MPA	/MPA			CHARRY	IZOD
Specified	1200-1400	88.5 min		9 min	25.7 min	
Observed						
As Rolled Hardness (BHN (Max / Min) (If Required in TDC/Customer)	1	2	3	4	5	

(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	BLOOM SIZE - 200x200	REDUCTION RATIO : 7.56:1
(If Required in TDC /Customer) As Per Mill Tc		

(14) DECARB LEVEL : (AS PER IS 6396 / ASTM E1077)	Specified	st. of dec max
(If Required in TDC /Customer)	Observed	PD 0.18

(15) UPSET/IBILITY 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.	Mill Tc Date	Verified By :
	FIAT S244/01	25031269	21/12/25	

(18) MIX-UP TEST (If Required in TDC /Customer)	Verified By Mobile Spectro /X-Ray Gun/Spark Test
	Accepted <input checked="" type="checkbox"/> Rejected <input type="checkbox"/>

Other Remarks	
Checked By	Approved By