



# RAW MATERIAL INCOMING INSPECTION REPORTS

Issue No. - 01, 01.07.2018  
Rev. no. - 02, 11.09.23

REPORT NO.	1732	SECTION	50	HAET NO.	50562	INVOICE NO.	SE 244 10424									
DATE	25/11/24	STEEL SUPPLIER	S/LR	REC.QTY	5420	INVOICE DATE	20/11/2024									
GRADE	Q235HC55	STEEL TC NO.	24110814	NO. OF BARS												
(01) Process / Mill Route																
Chemistry	%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%Al	%Cu	%As	%Sb	%V	%Nb	%Ti	%B
Min	0.15	1.0	0.15	0.015	0.01	1.0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max	0.2	1.3	0.2	0.03	0.02	1.3	0.3	0.1	0.05	0.3	0.01	0.01	0.01	0.01	0.01	0.01
Mill Tc Value	0.134	1.24	0.22	0.02	0.011	1.24	0.013	0.005	0.027	0.021	0.01	0.01	0.002	0.004	0.004	0.005
Spectro Value	0.134	1.235	0.207	0.023	0.016	1.24	0.013	0.002	0.026	0.016	0.01	0.01	0.002	0.004	0.004	0.005

Spectro Value	0.55												
(02) Bar Size (As per WI...)	Qty : 10 % Of Total Heat	Diameter/Section Size (in mm)											
No of Bar Checked	10	1	2	3	4	5	6	7	8	9	10	11	12
S.NO.	50	499	498	497	496	495	494	50.1	50.2	50.1	50.0		

(03) Gas Content (PPM): As per Mill Tc	N2	H2	O2
Min	60	1	1
Max	120	2.5	2.0
Value	92.1	1.76	1.14
Mill Tc			

(04) Steel Supply Condition: AS Rolled

(05) MACRO (i) Internal soundness Sample : (ASTM E381 or as per customer) Value Obs. S3 R3 C2  
S52 2R2 2C2  
(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 Ferrite + Pearlite  
SSB Ferrite + Pearlite

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

8)

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

	A		B		C		D		DS	
	Sulphide		Aluminate		Silicate		Oxide		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	1.0	0		
SSB	1.5	0.5	0.5	0.0	0.0	0.0	1.0	0.0		

(09) GRAIN SIZE : Spec.: S-R Mill Tc 7.0 SSB 7.0  
(ASTME112 / IS-4748)

(10) JOMINY HARDENILITY IS-3848 / ASTM A255 (As per required by Customer)	Distance	31.5	35	510	515	320	325	330							
	Specified	41-46	78-44	32-38.5	29-35.5	27-33.5	25.5-32	24.5-31							
	Mill Tc	45.5	42.5	38.2	32.8	27.8	26.7	24.5							
	Observed	42	41	35	31	30	28.5	26							

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	IMPACT VALUE
	N/mm2 / MPA		/MPA		CHARRY	IZOD
Specified	120-1570	920	MA	7	25	
Observed	1148	1051		15.8	38	
As Rolled Hardness	1	2	3	4	5	
(BHN (Max / Min)	173	175	177	178	181	
(If Required in TDC /Customer )						

(12) VISUAL : (i) Surface Condition 100 % Bars Checked OK (No rust, No crack, No gas) (44th)  
(ii) Heat No. 100 % Bars Checked OK (50562)  
(iii) Color Code. 100 % Bars Checked OK (Yellow + Blue)

(13) REDUCTION RATIO : Specify BLOOM SIZE - 200 X 200 REDUCTION RATIO : 20.37%  
(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 0.22 FD

(15) UPSETIBILITY TEST (AS PER IS 10167) :

(16) Test Certificate verified for Each Heat no :	Available & Ok	Not Available	Not Conforming
	OK		

(17) TDC / Customer STD (If Required in TDC / Customer) SSB/TDC/ Mill Tc No. Mill Tc Date Verified By :

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

Other Remarks

Checked By

Approved By

