

IO. 1735
26/11/2024
70MM ØS

SECTION :- 70
STEEL SUPPLIER :- SLCR
STEEL TC NO :- 24110309

HAET NO :- 51963
REC.QTY :- 6320
NO. OF BARS :-

INVOICE NO. - JE247-10579
INVOICE DATE. - 22/11/2024

Process / Mfg Route																		
%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Mo	%Al	%Cu	%As	%Sb	%V	%Pb	%Ca	%Nb	%Ti	%B	
0.15	1.0	0.15	0.015	-	1.0	-	-	0.02	-	-	-	-	-	-	-	-	-	-
0.2	1.2	0.4	0.03	0.02	1.3	0.3	0.1	0.05	0.3	-	-	-	-	0.001	-	-	-	0.0005
0.182	1.24	0.23	0.026	0.01	1.22	0.07	0.009	0.029	0.018	0.001	0.0005	0.006	0.001	0.0005	0.0011	0.0029	0.0003	
0.182	1.24	0.230	0.025	0.013	1.214	0.015	0.002	0.027	0.008	-	-	0.003	-	-	0.003	0.005	0.0004	

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

Checked 10

Diameter/Section Size (in mm)												
S.NO.	1	2	3	4	5	6	7	8	9	10	11	12
70	69.9	69.8	69.3	69.4	69.2	69.1	69.5	69.6	69.7	69.8		

Gas Content (PPM): As per Mill Tc			
	N2	H2	O2
Min	60	-	-
Max	120	2.50	20
Value	71.6	120	152
Mill Tc			

Steel Supply Condition: AS Rolled

MACRO (i) Internal soundness Sample : (ASTM E381 or as per customer) S3 R3 C2
Value Obs. >52 >R2 >C2

(ii) Dendrite structure 01 sample :

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

Micro structure As Rolled : Micro structure : (or as per customer)

Mill Tc Ferrite + Pearlite

SSB Ferrite + Pearlite

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

INCLUSION RATING (IS 14163 /ASTM: E45A OR REQUITRED BY CUSTOMER)									
	A Sulphide		B Aluminate		C Silicate		D Oxide		DS
	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	1.0	0.5	0.5	0	0	0	1.0	0.5	
SSB	1.0	0.5	0.5	0.0	0.0	0.0	1.0	0.5	

GRAIN SIZE : Spec:- 5-8 Mill Tc 7.5 SSB 7.0

(ASTME112 / IS-4748)

JOMINY HARDENBILITY IS-3848 /ASTMA255 (As per required by Customer)	Distance	71.5	75	710	715	720	725	730					
	Specified	41-46	78-44	32-38.5	29-35.5	27-33.5	25.5-32	24.5-31					
	Mill Tc	44.2	41.8	35.4	29.9	28.3	26.7	25.3					
	Observed	44	42	34	30	28	27	25					

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 1230-1570	930 min	7	25.0	
Observed	1258	1049	15.9	4238.6	

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

1	2	3	4	5
167	169	171	173	175

VISUAL :

(i) Surface Condition 100 % Bars Checked OK No (Rust, Gas cutting, crack)

(ii) Heat No. 100 % Bars Checked OK (51963)

(iii) Color Code. 100 % Bars Checked OK (Yellow + Brown)

REDUCTION RATIO : Specify BLOOM SIZE - 200 X 200 REDUCTION RATIO : 10.35 : 1

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

DECARB LEVEL : (AS PER IS 6396 / ASTM E1077)	Specified	0.60 max
	Observed	PD 0.21 FD

(If Required in TDC /Customer)

UPSETIBILITY TEST (AS PER IS 10167) :

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

TDC / Customer STD SSB/TDC/ Mill Tc No. Mill Tc Date Verified By :

(If Required in TDC /Customer)

MIX-UP TEST Verified By Mobile Spectra /X-Ray Gun/Spark Test

(If Required in TDC /Customer)

Accepted ☒ Rejected ☐

Other Remarks

Checked By Approved By