

173	SECTION :-	30	HAET NO. :-	A2515	INVOICE NO. :-	1602364
11/11/24	STEEL SUPPLIER :-	KALICO	REC.QTY :-	2330	INVOICE DATE :-	
20Mn25	STEEL TC NO. :-	7022-24/035646	NO. OF BARS :-			

Process / Mill Route

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

Checked 10

Gas Content (PPM): As per Mill Tc

Bar Size	1	2	3	4	5	6	7	8	9	10	11	12
10	83.5	83.8	83.6	83.5	83.4	83.2	83.3	30.1	30.2	30.3		

Steel Supply Condition: AS Hot Rolled

MACRO (i) Internal soundness Sample : (ASTM E381 or as per customer) S2 R2 C2

(ii) Dendrite structure 01 sample : 251 281 252

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

Micro structure As Rolled : Micro structure : (or as per customer) P+F

SSB P+F

ULTRASONIC TEST (AS PER ASTM A388) : Mill Tc 100V.CK

INCLUSION RATING (IS 34163 / ASTM: E454 OR REQUIRED 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	1.0	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: 6-8 Mill Tc 6-7 SSB 6.5

JOINTY HARDENABILITY IS-3848 / ASTM A255 (As per required by Customer)	Distance Specified Mill Tc Observed	As per IS:1608 / ASTM A 370		As per IS:1757	
		UTS N/mm ² / MPa	YS N/mm ² / MPa	%EL	IMPACT VALUE CHERRY IZOD
Specified	1200-1420	88.5	71.5	8	
Observed	1243	1074	94	71.5	

As Rolled Hardness (BHN Max / Min) (If Required in TDC / Customer)	As per IS:1608 / ASTM A 370				
	1	2	3	4	5
Specified	184	187	189	191	193
Observed					

VISUAL : (i) Surface Condition 100 % Bars Checked OK No (Rug, crack, gas cutting)
(ii) Heat No. 100 % Bars Checked OK (P2A 315)
(iii) Color Code. 100 % Bars Checked OK (B14C + yellow)

REDUCTION RATIO : Specify 7:1 BLOOM SIZE- 750 X 250 REDUCTION RATIO: 9.8%

DECARB LEVEL : (AS PER IS 6396 / ASTM E1077) Specified Observed PD 0.34 FD

UPSETABILITY TEST (AS PER IS 10167) : Specified Observed PD 0.34 FD

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

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

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

Other Remarks : Accepted Rejected

Checked By : Approved By