



KALYANI STEELS LTD - HOSPET DIVISION
Hospet Road, Ginigera - 583228 Taluka & Dist : Koppal, Karnataka.
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TEST CERTIFICATE



CUSTOMER : S S B ENGINEERS PVT LIMITED				Invoice.No: 9043036946		PROCESS ROUTE:				TC NO. K202255 DATE: 29.03.2025									
CUSTOMER		HEAT NO		GRADE		SECTION		COLOR CODE		SUPPLY		LENGTH		OVALITY		NO. OF		QUANTITY	
SPECIFICATION NO						(IN mm)				CONDITION		(IN Mtrs.)		(IN mm)		PIECES		(MIS)	
Q.F: 1001, Rev 02, Date : 12.05.2020		K202255		40CRM04		80 ROUND		FULL YELLOW		AS ROLLED		5 TO 6 MTR		AS PER IS 3739		135		28.940	

CHEMICAL COMPOSITION

%C	%Si	%Mn	%P	%S	%Ni	%Mo	%Cr	%Cu	%Al	%Sn	%V	N ₂ ppm	O ₂ ppm	H ₂ ppm	%Ti	CaPPM	Bppm	%As	%Sb	%Nb
REQ 0.380/0.450	0.150/0.400	0.600/0.900	0.035Max	0.020/0.040	0.300Max	0.150/0.250	0.900/1.200	0.300Max	0.020/0.050			60.0/120.0	15.0Max	2.00Max		10.000Max	5.000Max			
ACT 0.4240	0.1860	0.8710	0.0130	0.0220	0.0200	0.1570	1.1310	0.0120	0.0220			82.000	10.000	1.610		5.0000	1.0000			

MECHANICAL PROPERTIES

TENSILE VALUES				IMPACT	HARDNESS (BHN)	JOMINY VALUES (HRC)										D.I. VALU
YS (NMM)	UTS (NMM)	%EL	%RA			J1.5mm	J3mm	J5mm	J7mm	J9mm	J11mm	J13mm	J15mm	J20mm	J25mm	
REQ 835.00N/mm	1030.00/1230	10.00Min		25.00Min J	55.5/61	55.5/61	55/61	54/60	53.5/60	51.5/59	49.5/59	48/58	44/56	41/53	39.5/51	
ACT 882.00	1070.00	15.7		94.00 J	59.5	59.0	58.0	57.0	55.5	54.5	53.5	51.5	49.0	47.0	43.0	

METALLURGICAL PROPERTIES

SPARK/ SPICTRAL	STEP DOWN TEST	MACRO ETCH RESULTS(ASTM E-381)	INCLUSION RATING (ASTM - E - 45) Method 'A' Plate II (Worst Fields)										GRAIN SIZE (ASTM E-112)	SURFACE DEFECT LEVEL (mm)	CORE HARDNESS (OIL QUENCH II (HRC)	UPSET TEST RESULTS	TOTAL DEPTH OF DECARBURIZATION IN mm				
			A				B				C							D			
			T	H	T	H	T	H	T	H	T	H									
REQ	OK	NA	C2R3S3Max										5 to 8	OK	NA	NA	0.50 mm Max				
ACT	OK	NA	<C2/R3/S3										7.0	OK	NA	NA	0.36				

REMARKS: 1. BLOOM SIZE 200X200MM2 REDUCTION RATIO: 1:7.96.

5. MATERIAL IS FREE FROM RADIOACTIVE ELEMENTS."

2. MPI TEST: 100% DONE & FOUND OK.
3. BANDING: OK. 4. MICROSTRUCTURE: OK.
4. ULTRASONIC TEST: 100% DONE & FOUND OK.

PREPARED BY

Q.F.NO.HS / QA/10.01 DG.Rev.01 Dtd : 23.02.2015

AUTHORISED SIGNATORY

K.POMESH(Sr.GM-QAD)

