

## KALYANI STEELS LTD - HOSPET DIVISION

Hospet Road, Ginigera - 583228 Taluka & Dist : Koppal, Karnataka. Telphone : 08539 - 286603-08 (6lines) Telefax : 08539 - 286611

TEST CERTIFICATE



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		Q.I: 1001, Rev 02, Date: 12.05.2020	SPI:CIFICATION NO	CUSTOMER	221	CUSTOMER : S S B ENGINEERS PVT LIMITED
		K202255		HEAT NO		JMITED
CHENTE COMPOSITION		40CRMO4		GRADE		Invoice.No: 9043036946
OTTE COLUMN		80 ROUND	(IN mm)	SECTION		43036946
N		FULL YELLOW		COLOR CODE	EOF-LRF-VD-C	PR
	S -	AS ROLLED	CONDITION (IN Mtrs.) (IN mm) PHICES	SUPPLY	EOF-LRF-VD-CCM(EMS + AMLC)-R MILL TRUCK NO: RJ06GC440	PROCESS ROUTE
		5 TO 6 MTR AS PER IS	(IN Mirs.)	LENGHT OVALTTY	C)-R MILL	
	3739	AS PER IS	(IN mm)	ALLIVAO	TRUCK NO:	TC NO. K202255 DATE: 29.03.2025
	133	136	PHECES	NO.OF QUANTITY	RJ06GC4401	2255 DATE: 29
	28,940		(MTS)	ATTENADO		0.03.2025

CHEMICAL COMPOSITION

	%С	%Si	%Mn	%P	%S	%Ni	%Mo	%Ст	%Сu	%A1	%Sn	%V	N <sub>2</sub> ppm	N <sub>2</sub> ppm O <sub>2</sub> ppm H <sub>2</sub> ppm	H <sub>2</sub> ppm	%Ti	%Ті СаРРМ Вррт	Вррт	%As	%Sh	4cl%
REQ	0.380/0.450	0.150/0.400	0.600/0.900	0.035Max	0.020/0.040	0.300Max	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 0.05	0.900/1.200	0.300Max	0.020/0.050			60.0/120.0 15.0Max 2.00Max	15.0Max	2.00Max		10.000Max 5.000Ma	5.000Max			
VCI.	ACT 0.4240	0.1860	0.8710	0.0130 0.0220	0.0220	0.0200	0.1570	1.1310	0.0120	0.0220		1	82.000	82.000 10.000 1.610	1.610		5.0000	1.0000			
									MECH	MECHANICAL PROPERT	PROPE	RTIES					THE PARTY OF THE P				

									METALITIDOIO IL DONEDTIDO									
	43.0	47.0	49.0	51.5	53.5	54.5	55.5	57.0	58.0	59.0	59.5		94.00 J		15.7	1070.00	882.00	ACT
	41/53 39.5/51	41/53	44/56	48/58	53.5/60 51.5/59 49.5/59	51.5/59	53.5/60	54/60	55/61	55.5/61 55.5/61	. 55.5/61		25.00Min J		10.00Min	REQ 835.00Min 1030.00/1230 10.00Min	835,00Min	REQ
			2 10										(IZOD/CHARPY)			(MMM) (MMM)	(NMM)	
VALUE	J30mm	J9mm   J11mm   J13mm   J15mm   J20mm   J25mm   J30mm	J20mm	J15mm	J13mm	J11mm	J9mm	J7mm	J5mm	J3mm	J1.5mm J3mm	(BHN)	STRENGTH	%RA	%EL	UTS	SA	
<b>∅</b> .I.				40万	S (HRC)	JOMINY VALUES (HRC)	NIMOL		Ton-			HARDNESS	IMPACT		TENSILE VALUES	TENSILE		

							Į.		OVOICE	I V I VOI	METALLORGICALINOTENTIES					
	SPARK/	STEP	MACRO ETCH		I	INCLUSION RATING (ASTM - E - 45)	N RATIN	IG (ASTN	1-E-45	<u> </u>		GRAIN SIZE	SURFACE	CORE	UPSET:	TOTAL DEPTH OF
	SPECTRAL DOWN		RESULTS(ASTM			Metho	Method 'A' Plate I(Worst Fields)	I(Worst I	ields)			(ASTM	DEFECT	HARDNESS	TSH	DECARBURIZATION
	TSTT		F-381)	A		В		C		þ		E-112)	LEVEL (mm)	LEVEL (mm) (OILOUENCII   RESULTS	RESULTS	
				T	Н	Т	Н	Н	н	T	Н	,		(HRC)		
REQ	ОК	NA	C2R3S3Max	2.0	2.0 1.5	2.0 1.0	1.0	0.5	0.5	1.0	1.0	5 to 8	OK	NN	N	0.50 กาก ฟอง
LUV	ОК	NA	<c2 r3="" s3<="" td=""><td>1.5</td><td>0.5</td><td>0.0 0.0</td><td></td><td>0.0</td><td>0.0</td><td>1.0</td><td>0.5</td><td>7.0</td><td>OK</td><td>NN</td><td>N</td><td>0.36</td></c2>	1.5	0.5	0.0 0.0		0.0	0.0	1.0	0.5	7.0	OK	NN	N	0.36
RLM	ARKS: 1 BLOOM	M SIZE 200X2	RLMARKS: I BLOOM SIZE 200X200MM2.REDUCTION RATIO:1:7.96.	ATIO:1:7.9	96.				s	."MATERI	AL IS FRE	E FROM RADIOA(	5."MATERIAL IS FREE FROM RADIOACTIVE ELEMENTS".			

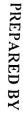
2 MPI TEST:100% DONE & FOUND OK.

3 BANDING: OK, 4 MICROSTRUCTURE: OK.

4 ULTRASONIC TEST: 100% DONE & FOUND OK.

AUTHORISED SIGNATORY K. Ponsus

K.POMESH(Sr.GM-QAD)



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