

MUKAND SUMI SPECIAL STEEL LIMITED,
Hospet Road, Kanakapura Village, Koppal, Karnataka, 583228
Tel : 91-08539-286603-08 (6 lines)

TEST CERTIFICATE

CUSTOMER: SHIVAM AUTOTECH LTD.

Delivery No: 8200100384

PROCESS ROUTE

EOF-LRF-VD-CCM(EMS)-R-MILL

TC NO. K124825 DATE: 30.05.2018
TRUCK NO: RJ02GB4061

CUSTOMER SPECIFICATION NO	CUSTOMER P.O.NO.	HEAT NO	GRADE	SECTION (IN mm)	COLOR CODE	SUPPLY CONDITION	LENGTH (IN Mtrs.)	OVALITY (IN mm)	NO. OF PIECES	QUANTITY
MAC-TS-001-A & B Rev 08 Dt:15.01.2014		M124825	SCM420MH	56 ROUND	WHITE BASE, BLUE STRIP	AS ROLLED	5.00 TO 6.00	AS PER IS 3739	311	35.420

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	%Pb
EQ 0.1700/0.200	0.150/0.350	0.770/0.900	0.030Max	0.010/0.025	0.250Max	0.170/0.200	0.850/1.150	0.300Max	0.020Min			90.0Max	15.00Max	2.00Max						
CT 0.1810	0.1890	0.8030	0.0130	0.0160	0.0260	0.1770	1.0660	0.0180	0.0250			89.000	15.000	1.810						

MECHANICAL PROPERTIES

TENSILE VALUES				IMPACT	HARDNESS	JOMINY VALUES (HRC)										VALUE			
YS	UTS (MPA)	%EL	%RA	STRENGTH (IZOD/CHARPY)	(BHN)	J13mm													
EQ	932.00Min	14.00Min	40.00Min		240 BHN MAX	27/30													
CT	958.00	22.8	66		190	28.0													

METALLURGICAL PROPERTIES

SPARK/ SPECTRAL TEST	STEP DOWN TEST	MACRO ETCH RESULTS(ASTM E-381)	INCLUSION RATING (ASTM - E - 45)										GRAIN SIZE (ASTM E-112)	SURFACE DEFECT LEVEL (mm)	CORE HARDNESS (OIL QUENCH (HRC)	UPSET TEST RESULTS	TOTAL DEPTH OF DECARBURIZATION IN mm		
			Method 'A' Plate I (Worst Fields)																
			A		B		C		D										
			T	H	T	H	T	H	T	H									
REQ	OK	NA	C2R2S2Max	2.0	1.5	1.0	0.5	0.5	1.0	1.0		6 to 8	OK	NA	NA	1% of the Dia Max			
ACT	OK	NA	<C2/R2/S2	1.5	0.5	0.5	0.0	0.0	0.0	1.0	0.5	7.0	OK	NA	NA	0.40			

REMARKS 1 BLOOM SIZE 200X200MM2 REDUCTION RATIO 1:16.24

5. ULTRASONIC TEST : OK AS PER ASTM A 388-2003
6. "MATERIAL IS FREE FROM RADIO ACTIVE ELEMENTS"

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

PREPARED BY

AUTHORISED SIGNATORY

K.POMESH(GM-QAD)