



SLR METALIKS LIMITED

Sy.No.632, Narayanadevarakere, H.B.Halli, Tq. Bellary District, 583 222



RNS-SLR/MI

TEST CERTIFICATE

CUSTOMER NAME	PROCESS ROUTE			BLOOM SIZE (mm)	SUPPLY CONDITION		TC NO.	INVOICE NO.	DATE
M/S SSB ENGINEERS PVT.LTD	MBF-EOF-LRF-VD-CCM-EMS-AMLC-RMS			200x200	As Rolled		25040433	SE25Y-00516	14-Apr-2025
CUSTOMER SPECIFICATION	HEAT NO.	GRADE	SIZE (mm)	REDUCTION RATIO	LENGTH (mm)	COLOUR CODE	QUANTITY (MT)	BUNDLE	VEHICLE NO.
Refer Remarks	55197	35CRMN5	70 DIA	10.39:1	5500 TO 6000	ORANGE	21.820	11	J1105DR7999

1. CHEMICAL COMPOSITION

Element	C	Si	Mn	P	S	Cr	Mo	Ni	Al	V	Ti (%)	Cu	B (%)	Nb	Ca (%)	As	Sb	Sn	Pb	W	Bi	Co	Zr	AIN2 Ratio	H2 (ppm)	N2 (ppm)	O2 (ppm)	-
Min	0.330	0.150	0.800	-	0.015	1.000	-	-	0.020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.10	-	60.0	-	-
Max	0.400	0.400	1.100	0.020	0.030	1.300	0.100	0.300	0.050	-	-	0.300	0.0005	-	0.0010	-	-	-	-	-	-	-	-	2.50	120.0	20.0	-	-
Actual	0.380	0.250	1.050	0.013	0.022	1.250	0.009	0.019	0.030	0.005	0.0039	0.018	0.0004	0.0010	0.0005	0.0010	0.0019	0.0012	0.0010	0.0001	0.0003	0.0057	0.001	3.45	1.33	87.2	14.3	-

2. PHYSICAL PROPERTIES

	TENSILE PROPERTIES (Quenched & Tempered) ASTM E&M				IMPACT TEST -	HARDNESS			JOMINY DISTANCE UNIT: mm (STANDARD: -)													
	YS MPa	UTS Mpa	% EL	-	(Charpy) (RT) Joules		As Rolled (BHN)			J1.5	J3	J5	J7	J9	J11	J13	J15	J20	J25	J30	-	-
Min	685	880	12	-	25	Min	-	-	Min	52.5	52.0	51.0	50.0	47.5	45.5	44.0	42.5	39.5	37.5	36.0	-	-
Max	-	1050	-	-	-	Max	240	-	Max	58.0	58.0	57.0	56.0	55.0	54.0	54.0	53.0	50.0	48.0	46.0	-	-
Actual	950	1055	19	-	90	Actual	225-229	-	Actual	57.5	54.8	53.4	52.4	51.4	50.2	49.1	46.7	41.8	39.7	37.1	-	-

3. JOMINY HARDENABILITY (in HRC)

4. METALLOGRAPHY

	INCLUSION RATING (ASTM E45-13)									DIN RATING (As Per DIN 50602)			GRAIN SIZE	TOTAL DECARB (%)	MACRO- STRUCTURE	STEP DOWN	UPSET	100% Bars Checked by UT - Found OK
	A		B		C		D		DS	-								100% Bars Checked by MPI - Found OK & free from surface defects
	T	H	T	H	T	H	H	H		S	O	S+O	(ASTM E112)	SAE J419	(ASTM E-381)	(IS 4075)	-	100% Bars checked for Mix-Up by PMI & Spark - Found OK
Spec	2.0	1.5	2.0	1.0	0.5	0.5	1.0	1.0	-	-	-	-	5-8	0.6%of dia Max	C2,S2,R2 Max	-	-	Material is free from radioactive contamination
Actual	1.5	0.0	0.5	0.0	0.0	0.0	0.5	0.0	-	-	-	-	7	0.23	Better Than C2R2S2	OK	-	

5. OTHER TESTS

6. REMARKS

1. Cust Spec TDS No. 01, Rev No. 01, Rev date 07.03.2021	6. Material is conforming to the customer specification.
2. (Ref Std: DANA QF 1001, Rev 03, Date 14.06.2024)	7. Inspection Certificate as per EN10204:2004, type 3.1
3. Dimension tolerance: as per IS 3739 Grade - 1	
4. Microstructure: Uniform Ferrite + Pearlite	
5. The material is comply with ROHS (Pb,Cd,Hg,Cr+6) permissible limits.	
Diwakar H Prepared By	Malleish Naik M Reviewed & Issued By
	Praresh Angadi Authorised Signatory

