



ADHUNIK METALIKS LIMITED
QUALITY ASSURANCE TEST CERTIFICATE

FORMATE NO. :-F/QA 02/02

M/S FORGE INDIA PVT.LTD (UNIT-II) - PARWANOO

DATE 31.12.2017
T.C NO. AML-C2660
TR.No
INVOICE

ROUTE:-MBF->EAF->LRF->VD/CCM With EMS/RM

GRADE	SIZE	HEAT No.	COLOUR CODE	SUPPLY COND.
20MnCr5	75 RCS	16AC266	WHITE	AS ROLLED

CHEMICAL COMPOSITION IN PERCENTAGE

	C	Mn	Si	P	S	Cr	Ca	Cu	V	Al
Min	0.17	1.10	0.15	0.000	0.020	1.00	0.000	0.000	0.0010	0.020
Max	0.22	1.40	0.40	0.035	0.035	1.30	0.001	0.250	0.0030	0.060
Actual Value	0.185	1.15	0.25	0.025	0.031	1.02	0.0006	0.028	0.0021	0.028

METALLURGICAL RESULTS

INCLUSION RATING IS: 4163/JK CHART

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								Size	mm	Structure
A		B		C		D		ASTM No	Partial	
T	H	T	H	T	H	T	H			
1.00	0.50	1.00	0.0	--	--	1.00	--	6.0-7.0	0.20mm	P+F

MECHANICAL PROPERTIES

	U.S.T (kg/mm2) (MPA)	Y.S. (Kg/mm ²) (MPA)	EL%	RA%	Impact Val Charpy/ IZC (JOULES)	Step Down test and acting bar test found	Hardness B.H.N.	MACRO	ULTRA SOUND	MIX UP TESTING
Reqd.								BETTER THAN C2R2S2		100%Spark test and found OK
Actual						OK	182			

Reqd.	J4/16 36-40							N2	H2	O2
								Min	-	-
Actual	37							Max	-	-
								Actual	77	1.3

Remarks: Material is free from all kinds of Radio Active Elements RR : 7 BILLET SIZE : 200 X 200 MM

Certified that the findings are correct and are based on actual results carried out on samples drawn as per Quality Assurance Plan

FOR ADHUNIK METALIKS LTD.

Rat

PREPARED BY

AUTHORISED SIGNATORY