

MACHINE STRAIGHTENED MATERIAL

Prepared By: VISHWAKARMA SHARMA

ARORA IRON & STEEL ROLLING MILLS (P) LTD.

DHANDARI KHURD, NEAR PHASE-VII, FOCAL POINT, LUDHIANA- 141 010.
Website: www.arorairon.com



UNIT-I TEST CERTIFICATE TEST CERTIFICATE ACCORDING TO EN10204 TYPE 3.1



istomer Address:					M	aterial		E	Billet Ro	oute				Test Certifi	cate No.		2024-2	25/00173	11	
/S- S.S.B. ENGINEERS PVT.LTD.					1	ocess F	loute		EAF-LRF-VD-CCM-AMLC-EMS-RM				Date		05-11-2024					
	58 A MATS		ISTRIAL	AREA		ecifica		1	DC No:			2.4.5		Invoice No.						
								1	Dated:-21.10.2021,Rev:-00 MFR No-1516								1100	135		
								1												
								1	Date-08		2									
								1	Revision		7 44 20									
								1,	Kevisior	n Date-0	7.11.20	22					-	m (-	-	
LWAR -RA														Weight (MT	•			545		
IN CODE I	VO.301030				1	leat No),		A3208					Input/Billet			320×250			
						Grade	C1	1	19CrNi	-				Reduction R	atio		7.08:1(Sp 80 —	ec-b:1 m	n)	
					1	Supply S Supply		- 1	120 MN AS HOT					No's of Bundles				16		
						Colour		1	WHITE		U						NA			
											RES	IIIT								
													45 /16	0011\						
		50/	11-0/	5104									15 / IS	8811)	. 1		T .		Al/N2 Ratio	
Fle	ment Min	C%	Mn% 0.700	5i% 0.150	5 %	P%	Cr% 0.800	Nì% 0.800	Mo%	V%	AI% 0.020	Cu%	Ca%			-	1		2.00	
Spec.	Max	0.100	1.100	0.130	0.020	0.020	1.200	1.200	0.100	-	0.050	0.300	0 0025	-			· .		3.00	
Ach	ieved	0.190	0.905	0.225	0.027			1.040	_	0.003			0.0007						2.19	
				-	-	_	-	_			-		-							
			,		JOMI							(IS:38	348, AS	TM A255,	SAE J40	16)	1	T	T	
	ce (mm)	1.5	3	5	7	9	11	13	15	20	25	197				4000	100	-	+	
Spec.	Min	41.5	40	37	35	33	31	34 41.5	40	23.5 36.5	33.5			10.012	77.2				+	
	Max red (HRC)	45.0	46.5	45.5	42.0	43.5 39.5	37.5	35.0	34.0	31.0	-	_	100	1.04,80			1	1		
Achiev	red (HKC)	43.0	¥4.5	1 43.0	42.0	35.3	37.3	33.0	34.0	^	A	7324	17.5	Let 8				-	-	
		Supply X	•						Me	chani	cal Pr	operti	es							
IS:1608,			1608/AS	ASTM A370					IS:1757 ASTM A255 IS:1500								00			
		500				2007					Manager Company				Surface Hardness					
10/30		ield	The state of the s			duction Area			Impact Strength Charpy U-notch				As Rolled							
		Str	Strength Strength		ength	A			(Joules)				(Inch) (mm)		(BHN)					
-	Min	n -		500	0 - 052		- 73		Se San		THE RESERVE THE		94		100					
Spec.	Max					-			-			strategyper () • 1400					245			
Achieved		94.1	The second second			(2)	•		•	170			1000	and process of the same		NEWSCHIEF THE	2011	123		
									M	letalli	ırgica	l Resu	lts							
	-	AU WAALI	l D	ation (II	. 4162	/ ASTA	· F454	/ IK Ch		Ctant	I	Grain .		is a standard to feet	Depth	of	right Girth Indicators	or designation		
and the second		inc	Inclusion Rating (IS : 416 WORST F					10.7	nurt,			IS 474		Decarburization		ation	Micro Structure			
Parame	ters Type	1	A		В	С		11.45%	D	DS	ASTM E112		IS 6396/ASTM			5 E.	micro structure			
	Series	1	Thick	Thin	Thick	Thin	Thick	Thin	Thick	2		(No	.)	Comp	olete	Partial				
	Min		776		-		-	-	-	-		c 1	ner			1% of section/0.5				
	200	122	2.0	1.0	1.0	+	0.5	1.5	1.5			6 or finer				mm max.		Pearlite + ferrite		
Spec.		2.0	2.0	1.0	1.0			+	+-	+-	+-	0	6.5	1		-	-			
Spec.	Max	-		0.5	0.0	0.0	0.0	1.0	0.0	<u></u>	6.	0 to	0.5			0.41 MM			10.000	
•	Max hieved	1.5	0.5					•			_			0.045 -						
•	-	1.5	0.5				hysica							& Other Te		Tast		Harr	tting	
	-	1.5	0.5	, A.					ace Ins	pection	, i 1∨1	Magnetic Particle Inspection		Ultrasonic Test ASTM A388			Upsetting Test			
•	-	Interna	l Soundr		36	Step Do		Surf	15 1 2 2			Inspe	ction	000	75750		IS 10167			
•	hieved	Interna			7.	Step Do Test		Surf	IS 133			Inspec						IS 10	1107	
Ac	hieved	Interna AST	I Soundr M E381			Step Do		Surf	IS 133			ASTM I	E1444		100%	pars	1	IS 10		
Ac	hieved	Interna AST	l Soundr			Step Do Test		Surf	IS 133			100%	bars		100%			IS 10	-	
Parame Spec	hieved	Interna AST	Soundr M E381	X.		Step Do Test	75	<i>y</i>	IS 133	52		100%	E1444	100% t		oars UT Tested-Ok		15 10		
Ac	hieved	Interna AST	Soundr M E381	X.		Step Do Test IS 407	75	<i>y</i>	-	52		100%	bars	100% E	ars Auto	UT Tested-Ok		IS 10	7107	
Parame Spec	hieved	Interna. AST C2,R2 Better th	Soundr M E381 ,S2 MA) an C2,R	x. 1,51		Step Do Test IS 407 - Satisfac	tory	<i>y</i>	-	ctory	i	100%	bars	100% t	ars Auto			15 10	-	
Parame Spec Achievi	eters ed	Interna. AST C2,R2 Better th	Soundr M E381 ,52 MA) an C2,R	x. 1,51		Step Do Test IS 407	tory	<i>y</i>	Satisfa	ctory		100%	bars	100% b	Gas Ar	UT Tested-Ok	ort	15 10		
Parame Spec	eters ed	Interna. AST C2,R2 Better th	Soundr M E381 ,S2 MA) an C2,R	x. 1,51		Step Do Test IS 407 - Satisfac	tory	<i>y</i>	Satisfa	ctory		100% Teste	bars	100% b	Gas Ar	ut Tested-Ok nalysis Rep method-Lecc	ort		2 (ppm)	
Parame Spec Achievi	eters ed	Interna. AST C2,R2 Better th	Soundr M E381 ,52 MA) an C2,R	x. 1,51	2	Test IS 407 - Satisfact Spark T	tory est	<i>y</i>	Satisfac	ctory	·	100% Teste	bars ed-Ok	100% E	Gas Ar Test	ut Tested-Ok nalysis Rep method-Lecc	ort	н		
Paramo Spec Achievi	eters ed	Interna. AST C2,R2 Better th	Soundr M E381 ,52 MA) an C2,R	x. 1,51	2	Step Do Test IS 407 - Satisfact Spark T	tory Fest	<i>y</i>	Satisfac X-R	ectory F bars		100% Teste	bars ed-Ok ppm)	100% E	Gas Ar Test N ₂ (p	UT Tested-Ok nalysis Rep method-Lecc ppm) 110	ort	н		
Paramete Spec. Achieved	eters eters et a As	Internal AST C2,R2 Better th Dimed Tole	Soundr M E381 ,52 MA) an C2.R Insional rance	1,51 de 1	2	Tested Do Test IS 407 Satisfact Spark T	tory Test Tars Ok		X-R 100% Teste	ectory bars d-Ok		100% Tests 0.11	bars ed-Ok ppm) MAX 1 = 1000	EAG.	Gas Ar Test N ₂ (r 90-	ut Tested-Ok nalysis Rep method-Lecc opm)	port	Н	2 (ppm) 2 0 MAX	

Approved By

in case of any Test certificate Issue, please inform Dinesh Singla a quality paroniron.com. Mobile No.+919914538700