

KALYANI STEELS LTD - HOSPET DIVILLON

Hospet Road, Ginigera - 583228 Taluka & Dist: Koppal, Karnataka.

Telphone: 08539 - 286603-08 (6lines) Telefax: 08539 -286611 TEST CERTIFICATE



CLISTOMER SSR ENGINEERS PVT LTD	TD				PR	PROCESS ROUTE		TC NO. K116594 DATE.02.11.2017	5594 DATE.0	2.11.2017
					EOF-LRF-V	EOF-LRF-VD-CCM(EMS)-R.MILL	.MILL	TRUCK NO:		
CUSTOMER	CUSTOMER HEAT NO	HEAT NO	GRADE	SECTION	COLOR CODE	SUPPLY	LENGHT	LENGHT OVALITY	NO.OF	NO.OF QUANTITY
SPECIFICATION NO	DN O. d			(IN mm)		CONDITION (IN Mtrs.) (IN mm.)	(IN Mtrs.)	(IN mm)	PIECES	
ZF ZR Issue 2008 -07		K116594	ZF7B	83 ROUND	HALF(AS ROLLED	40TO60	AS PER IS	152	35.080
					RED+YELLOW)			3739		

CHEMICAL COMPOSITION

															1					
0%	iS%	%Mn	%b	S%	iN%	%Mo	%Cr	%Cn	%Al	%Sn	Λ%	N ₂ ppm	O ₂ ppm H ₂ ppm		%Ti (CaPPM Bppm	Bppm	%As	qS%	%Pb
000.0/0	0 300Max	100/1 400	0.025Max	0.025Max 0.020/0.035 0.300Max 0.080Max	0.300Max	0.080Max	1 000/1 300	0.300Max	0.028/0.050	0.030Max		90.0Min	90.0Min 25.00Ma	0	005Max	.005Max 30.000Max 10.000/30	10 000/30 0		0.005Max	
1	10000																			
1560	0.2830	1 2090	0.0180	0,0280	0.1870	0.0640	1 2420	0,1250	0.0380	0,0010	0.0043	112.000	112 000 10 000 1 640		0.0030	00000'9	17 0000	0.0024	10000	
							1						200							

MECHANICAL PROPERTIES

	TENSILE	TENSILE VALUES	7.0	IMPACT	HARDNESS	,				JOMINY VALUES (HRC)	VALUES ((HRC)		D.I.
S)	UTS	%EL	%RA	STRENGTH (IZOD/CHARPY)	(BHN)	JSmm	J10mm	J25mm J50mm	J50mm					VALUE
						39/43	35/39	27/31	24Min					
						42.0	36.0	28.0	24.5					

METALLURGICAL PROPERTIES

								7	THE PROPERTY OF THE PARTY OF TH	-					
PARK/	STEP	STEP MACRO ETCH		U	NCLUSIC	N RATIN	INCLUSION RATING (ASTM - E - 45)	1-E-45			GRAIN SIZE SURFACE	SURFACE	CORE	UPSET	TOTAL DEPTH OF
ECTRAL	DOWN	ECTRAL DOWN RESULTS(ASTM			Metho	d'A' Plate	Method 'A' Plate I(Worst Fields)	ields)			(ASTM	DEFECT	HARDNESS	TEST	DECARBURIZATION
TEST	TEST	E-381)	A		В	-	O		d		E-112)	LEVEL (mm)	LEVEL (mm) (OILQUENCH RESULTS	RESULTS	IN mm
			T	Н	T	Н	L	Н	T	Н			(HRC)		
OK	NA	C2R2S2Max									5 to 8	OK	NA	NA	NA
OK	NA	<c2 r2="" s2<="" td=""><td>1.5</td><td>0.5</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0 1.0 0.5</td><td>0.5</td><td>7.0</td><td>OK</td><td>NA</td><td>NA</td><td>A'N</td></c2>	1.5	0.5	0.0	0.0	0.0	0.0	0.0 1.0 0.5	0.5	7.0	OK	NA	NA	A'N

S. 1 BLOOM SIZE:240X280MM2 REDUCTION RATIO:1:12.43

2 ROLLED PRODUCT SIZE: 83MM DIA

3.K4(OXIDES)<25, ACT:NIL

4 ACT : GRAIN SIZE 100%

6 MPI TEST: 100% DONE & FOUND OK. 5 ACT %NB:0.0030

7. ULTRAS UNIC TEST: OK

8 "MATERIAL IS FREE FROM RADIO ACTIVE ELEMENTS"



K.POMESH(GM-QAD) AUTHORISED SIGNATORY