



Since 1992

KISCO
NERVES OF STEEL

Doc.no.: F-QCD-16		TEST CERTIFICATE AS PER EN-10204-3.1															
Issue no.: 1.0																	
Date: 01.08.2013																	
Approved By: M.R.		CUSTOMER:-		S.S.B. ENGINEERS (P) LTD		GRADE :-		S690QL		T.C NO.:-		RND/1049					
P.O. No. & Dt.		2024-25N 52 Dt. 16.10.2024		Inv. No.		SA244-0112-3		Inv. Dt.		27/11/2024		DATE:-		23.11.2024			
Product		ROLLED BAR		Mfg. Route		EF + LRF + VD, Fully Killed Bottom Poured Ingot											
Feasibility No.		KCIL/22-23/1005, Rev. No.3 Dt. 28.08.2023		Supply Conditions		Rolled + Peeled											
ITEM DESCRIPTION																	
Heat No.		Size		No. Of Pcs.		Qty In MT.		Remarks									
K24-1315		127 MM DIA		19		10-235											
CHEMICAL ANALYSIS %																	
% ELEMENT		C	Mn	Si	S	P	Cr	Mo	Ni	Nb	Ti	Cu	B	V	Zr	N	
SPEC.	MIN.	
	MAX	0.20	1.70	0.80	0.010	0.025	1.50	0.70	2.00	0.06	0.05	0.50	0.005	0.12	0.15	0.015	
Achieved		0.17	1.35	0.29	0.001	0.016	1.11	0.34	1.75	0.01	0.002	0.09	0.0003	0.08	0.002	0.009	
MECHANICAL PROPERTIES (On H&T Sample Only)																	
Test piece location 12.5 mm from surface		Tensile Strength (Mpa)		Yield Strength (Mpa)		% Elongation		R.A		Hardness (BHN)		Impact (CVN) Longitudinal @ -40 °C					
SPEC.	MIN.	710		630		14		-		-		30J Min.					
	MAX	900		-		-		-		-		-					
Achieved		847.89		767.3		20.93		-		-		140	144	148	Avg. 144J		
Jominy Hardenability														RAW MATERIAL DETAIL			
Distance in mm		-	-	-	-	-	-	-	-	-	-	INGOT SIZE		-			
Spec.	Min.	-	-	-	-	-	-	-	-	-	-	REDUCTION RATIO		-			
	MAX	-	-	-	-	-	-	-	-	-	-	-		-			
Achieved		-	-	-	-	-	-	-	-	-	-	-		-			
NON DESTRUCTIVE TESTING																	
Ultrasonic Testing				Dye Penetrant Testing				Magnetic Particle Inspection				Mixup Test					
Ref. Std.		ASTM A388, Probe: ø24mm, 2MHz				Ref. Std.			Ref. Std.			Spark test		100% Done & found Satisfactory	
Acceptance		4mm FBH on DGS Scale				Acceptance			Acceptance			Mobile Spectro			
Result		Found Satisfactory				Result			Result			-			
METALLURGICAL TESTING																	
INCLUSION RATING (ASTM E45)				GRAIN SIZE (ASTM E112)		MICRO STRUCTURE				MACRO (ASTM E381)		STEP DOWN TEST					
A B C D				6.5-7.0						Better than C2 R2 S2		Decarburization Depth					
THIN				-		-				-		-					
THICK				-		-				-		-					
IDENTIFICATION DETAIL				Heat No., Grade, & Size marked on bars/bundles				Colour Code				ORANGE-GREY-PINK					
Result:		The supplied material is free from internal, surface defects & radioactive contamination															
We hereby certify that products has been manufactured,inspected and found acceptable as per customer requirements.																	
Prepared By				Reviewed By													

Kamarpal.
Prepared By

Reviewed By



KISCO CASTINGS (INDIA) LIMITED

CIN - U27100PB2012PLQ036043 GST-03AAECK6712E1ZZ