



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/1478					
										DATE:-		28.03.2025					
P.O. No. & Dt.		2024-25N 76 Dt. 26.02.2025				Inv. No.		SAD-01719		Inv. Dt.		31/03/2024					
Product		ROLLED BAR				Mfg. Route		EF + LRF + VD, Fully Killed Bottom Poured Ingot									
Feasibility No.		KCI/22-23/1005, Rev. No.3 Dt. 28.08.2023				Supply Conditions		As Rolled									
ITEM DESCRIPTION																	
Heat No.		Size As per (IS: 3739 Gr-2)		No. Of Pcs.		Qty In MT.		Remarks									
K24-2017		130 MM DIA		21		10-570											
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		Chemical Composition confirming to the specification.															
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		-		-		-		114 116 118 Avg. 116J					
Achieved		830.57		750.96		21.6		-		-							
Jominy Hardenability																	
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: p24mm, 2MHz				Ref. Stnd.			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 - BLUE SPOT							
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.															

KISCO CASTINGS (INDIA) LIMITED

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