



Since 1992

KISCO
NERVES OF STEEL

Doc.no.:F-QCD-16

Issue no.:1.0

Date: 01.08.2013

Approved By:M.R.

TEST CERTIFICATE

AS PER EN-10204-3.1

CUSTOMER:-	S.S.B. ENGINEERS (P) LTD	GRADE :-	S690QL	T.C. NO.:-	RND/1187
				DATE:-	09.01.2025
P.O. No. & Dt.	2024-25N 55 Dt. 15.11.2024	Inv. No.	SA244-01377	Inv. Dt.	23/01/2025
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	As Rolled		

ITEM DESCRIPTION

Heat No.	Size As per {IS: 3739 Gr-2}	No. Of Pcs.	Qty In MT.	Remarks
K24-1454	130 MM DIA	15	8.610	

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	-	-	-	-				
Achieved	824.52	742.49	22.8	-	-	124	126	130	Avg. 126.6J

Jominy Hardenability**RAW MATERIAL DETAIL**

Distance in mm	-	-	-	-	-	-	-	-	-	-	INGOT SIZE	
Spec. Min.	-	-	-	-	-	-	-	-	-	-		
MAX	-	-	-	-	-	-	-	-	-	-		
Achieved	-	-	-	-	-	-	-	-	-	-	REDUCTION RATIO	

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	
Acceptance	4mm FBH on DGS Scale	Acceptance	.....	Acceptance	.....	Mobile Spectro	100% Done & found Satisfactory
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			
THIN	0.5	-	-	1.0	7.0	Better than C2 R2 S2	-
THICK	-	-	-	0.5			Decarburization Depth
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 	Authorised By
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