

MAHARASHTRA SEAMLESS LIMITED
WORKS (MILL) TEST CERTIFICATE
 EN 10204 : 3.1B



Test Certificate No.: **MSL-6/QC/0001F/2022**
 Date: **30 June 2022**

OD X WT : **88.90 mm X 7.62 mm (3.500" X 0.300")**
 Length Range : **40 - 40 Feet**
 Total Length : **4880 Feet (122 Pcs)**
 Material Code :

Customer : **42456 Dtd. 04-03-2022**
 P.O.No : **66210080 (Item No. 19)**
 DC>Loading slip no. : **ASTM A53 GR.B / A106 GR.B / API 5L GR.B / X42 TSL-1**
 Specification : **Hot Finished seamless carbon steel pipes**
 Process/Type of Pipe :

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A) CHEMICAL COMPOSITION (%) - Reference standard ASTM A-751 & ASTM B-415

SI No	Heat No	Test Unit	Analy	C	Mn	Si	P	S	Cr	Mn	Ni	Cu	V	Nb	TI	Nb+V	Nb+V	TI	Nb+V	B	Ca	Al	N	Mn/C	Cu+Ni	CE	CE	Pcm	CE	IIW	B) Special / Supplementary Req.
Req.	Min.	Max.	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
1	AB720	P1	H	0.180	0.180	0.030	0.011	0.003	0.016	0.0020	0.008	0.005	0.0050	0.0030	0.0020	0.0080	0.0100	0.0020	0.0020	0.0004	0.0004	0.030	-	5.833	0.013	0.360	-	0.360	-		
1	AB720	P2	H	0.180	0.190	0.030	0.011	0.004	0.016	0.0020	0.009	0.006	0.0049	0.0028	0.0019	0.0077	0.0096	0.0019	0.0028	0.0003	0.0003	0.031	-	5.526	0.015	0.371	-	0.371	-		
2	AB732	P1	H	0.180	0.180	0.030	0.010	0.003	0.015	0.0010	0.007	0.004	0.0051	0.0031	0.0021	0.0032	0.0103	0.0021	0.0032	0.0004	0.0004	0.029	-	5.889	0.011	0.362	-	0.362	-		
2	AB732	P2	H	0.180	0.180	0.030	0.016	0.007	0.016	0.0020	0.008	0.005	0.0040	0.0020	0.0010	0.0060	0.0070	0.0020	0.0010	0.0060	0.0004	0.0033	-	5.833	0.013	0.360	-	0.360	-		
		P1	P	0.180	0.180	0.030	0.016	0.006	0.017	0.0010	0.007	0.006	0.0039	0.0022	0.0011	0.0061	0.0072	0.0011	0.0039	0.0005	0.0034	0.032	-	5.833	0.013	0.360	-	0.360	-		
		P2	P	0.190	0.190	0.030	0.017	0.008	0.016	0.0030	0.009	0.004	0.0041	0.0021	0.0012	0.0032	0.0074	0.0021	0.0032	0.0004	0.0004	0.032	-	5.474	0.013	0.369	-	0.369	-		

C) MECHANICAL PROPERTIES

SI No.	Heat No.	Test Unit	Quantity	Tensile Testing (Loc. Pipe Body)		YST/UTS Ratio		YS/UTS Ratio	CVN Impact Test (Pipe Body)		Absorbed Energy (J)	% Shear Area
				Orientation	YS (Mpa)	UTS (Mpa)	YS (%)		UTS (%)	1		
			Reference standard ASTM 370 & E-8									
			Reference standard ASTM E-23									
			Through Wall Hardness (HRB)									
			Hardness (HRB)									
			Transverse Direction									
			ID									
			Mid									
			Avg									
			1									
			2									
			3									
			4									
			Avg									
			1									
			2									
			3									
			4									
			Avg									

Req.	SI No.	Heat No.	Min.	Tensile Strength (Mpa)		Elongation (%)	Temperature (°C)
				YS	UTS		
			290	415	30		
1	AB720		370.25	488.65	0.76	38.74	
2	AB732		379.48	494.24	0.77	37.98	

Raw Material	Steel Route	Hot Rolling Temp. °C	Heat Treatment	Delivery Condition	Norm./Temp. Temp (°C)	HIC	Inclusion Rating
JSW Ispat, Chhattisgarh/ M007290B	EAF-LRF-VD-CCM	880-940	MA	R	NA	NA	NA
JSW Ispat, Chhattisgarh/ M007280B	EAF-LRF-VD-CCM	880-940	MA	R	NA	NA	NA

NDE Methods			Ultrasonic Testing			End Area Inspection		
Location & Orientation	Type & Size of Ref Indicator	Residual Magnetism	Longitudinal Notch at OD & ID	12.5% Notch X 50mm Length X 1.0mm Width	10 Gauss Max	Hydro Test Pressure	Holding Time	End Protection
Good	Good	OK	OK	OK	OK	2970 Psi	5 Sec.	Plastic end cap
Good	Good	OK	OK	OK	OK	2970 Psi	5 Sec.	Plastic end cap
Bevel	OK	OK	OK	OK	OK	2970 Psi	5 Sec.	Plastic end cap
OK	OK	OK	OK	OK	OK	2970 Psi	5 Sec.	Plastic end cap
OK	OK	OK	OK	OK	OK	2970 Psi	5 Sec.	Plastic end cap
OK	OK	OK	OK	OK	OK	2970 Psi	5 Sec.	Plastic end cap
OK	OK	OK	OK	OK	OK	2970 Psi	5 Sec.	Plastic end cap

D) Marking/Stamping	MAHA ((M)) MSL SPEC API SL / ASTM A106 GR B / ASTM A53 GR B / NACE MR0175 / MR0103 3.500 0.300 B / L245 / X42 / L290 PSL1 SMLS HEAT NO 2970 PSI BE DRL + LENGHT IN FEET 10.26	
	PPF + MADE IN INDIA + SHIPPING MARK "PO # 25.436 + B.NO....."	

E) Remarks : 1) Mill Confirms to API 5L GR.B PSL-1 / X42 (EDN. 2018) / ASTM/ASME A106 B (EDN. 2019a) / SA106 B (EDN. 2020) / ASTM A53 GR.B (EDN. 2020). 2) Country of melt and pour : INDIA.

Legends : T-Transverse, L-Longitudinal, YST-Yield Strength, UTS-Ultimate Tensile Strength, El-Elongation, GL-Gauge Length, H-Ikcat, P1-Product 1, P2-Product 2, R-As Rolled, Q-Quenched & Tempered, N-Normalised, N&T-Normalised & Tempered, PE-Pipe-end, BC-Buttress Thread Casting, LC-Long Round Thread Casting, SC-Short Round Thread Casting, NU-Non-upset tubing, EU-External upset tubing, NA - Not Applicable

The material has been manufactured, sampled, tested and inspected and has been found conforming to the specification and PO

FOR MAHARASHTRA SEAMLESS LTD
 DEBTANU PAL - Asst. Engineer

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Warning : Modification or unauthorized use of this certification is strictly prohibited. Violation calls for criminal prosecution. For authenticity verification, you can contact us at: msrlc@mahaseam.com.

