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

QCF 20A

Test Certificate No.: **MSL-6/QC/0001M/2022**
Date: **10 July 2022**

Customer :
P.O.No : 42456 Dtd.04-03-2022
OC/Loading slip no. : 66210080 (Item No. 07)
Specification : ASTM A106 GR.B / API 5L GR.B / X42 PSL-1
Process/Type of Pipe : Hot Finished seamless carbon steel pipes

OD X WT : 48.30 mm X 5.08 mm
Length Range : 20 - 20 Feet
Total Length : 28740 Feet (1437 Pcs)
Material Code : .....

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

Sl No	Heat No	Test Unit	Analysis	C	Mn	Si	P	S	Cr	Mo	Ni	Cu	V	Nb	Ti	Nb+V	Nb+V+ Ti	B	Ca	Al	N	Mn/C	Cu+Ni	CE Pcm	CE IIW	B) Special / supplementary Reqts.
Req.	Min.	%			0.290	0.100												0.001								
	Max.	%		0.260	1.060	0.500	0.030	0.010	0.400	0.150	0.400	0.400	0.080	0.110	0.110											
1	AB700		H	0.170	1.040	0.200	0.012	0.004	0.015	0.0029	0.006	0.006	0.0011	0.0004	0.0017	0.0015	0.0032	0.0003		0.026		6.118	0.012		0.348	
			P1	0.180	1.030	0.200	0.011	0.005	0.016	0.0039	0.007	0.007	0.0009	0.0003	0.0018	0.0012	0.0030	0.0002		0.027		5.722	0.014		0.357	
			P2	0.170	1.050	0.190	0.012	0.003	0.015	0.0029	0.005	0.005	0.0012	0.0004	0.0019	0.0016	0.0035	0.0003		0.025		6.176	0.010		0.349	

C) MECHANICAL PROPERTIES

Reference standard ASTM 370 & E-8 — Tensile Testing (Loc: Pipe Body) — G.L.=50 mm Nom. Width= 19.05 mm

Sl No.	Heat No.	Test Unit	Quantity Pcs	Quantity Feet	Name of the Steel Maker and Address/Supplier Heat No.	Orientn.	YST (Mpa)	UTS (Mpa)	YST/ UTS Ratio	El (%)
Req.	Min.						290	415		30
	Max.									
1	AB700		1437	28740	JSPL, Chhattisgarh/ 2215418	L	410.11	532.13	0.77	35.02
							418.54	537.62	0.78	35.44
							415.26	536.24	0.77	35.26
							412.62	531.20	0.78	35.17

Reference standard ASTM E-23 — CVN Impact Test (Pipe Body) — Size & Orientation: — Temperature°C :

Absorbed Energy (J) 1	2	3	Avg	% Shear Area 1	2	3	Avg

Reference standard ASTM E-18 — Through Wall Hardness (Pipe Body) — Hardness (HRB) — Transverse Direction

OD 1	2	3	4	Avg	Mid 1	2	3	4	Avg	ID 1	2	3	4	Avg
74	75	75	74	74										

Raw Material	Fully killed & Fine Grain Practice	Dimension	Good	NDE Method	Ultrasonic Testing - GOOD
Steel Route	EAF-LRF-VD-CCM	Weight	Good	Location & Orientation	Longitudinal & Transverse Notch at OD
Hot Rolling Temp. °C	880-940	End Finish	Bevel	Type & Size of Ref.Indicator	10% Notch X 50mm Length X 1.0mm Width
Heat Treatment	NA	Straightness	OK	Residual Magnetism	10 Gauss Max
Delivery Condition	R	Visual	OK	Field Weldability	NA
Norm./Temp. Temp(°C)	NA	Bend Test	OK	Flattening Test	NA
HIC	NA	SSC	NA	Micro Structure/Grain Size	Reveals fine Ferrite and pearlite /ASTM No. 7-8
Inclusion Rating	NA	Hot Straight. Temp.°C	NA	Colour Coding	NA

End Area Inspection	OK
Hydro Test Pressure	2970 Psi
Holding Time	5 Sec.
End Protection	Plastic end cap
External Coating	Black Varnished
Flaring Test	NA
CTOD	NA

D) Marking/Stenciling : MAHA ((M) MSLAPI SL X-42 PSL-1 / ASTM A106 GR.B / NACE MR0175/ MR0103(% S HARDNESS CONTROLLED) BE SMLS SRL OD 1.900 INCH X WT 0.200 INCH HFS HEATNO.... + 2970 PSI + LENGTH...IN FEET + MADE IN INDIA + WEIGHT - 3.63 LB/FT + PO/SHIPPING MARK : "PO # 25.436" + B.NO....

E) Remarks : 1) Matl Confirms to API SL GR.B PSL-1 / X42 (EDN. 2018)/ ASTM/ASME A106 B (EDN. 2019a)/ SA106 B (EDN. 2021). 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-Heat , P1-Product 1, P2-Product 2, R-As Rolled, Q-Quenched & Tempered, N-Normalised, N&T-Normalised & Tempered, PE-Plain-end, BC-Buttress Thread Casing, LC-Long Round Thread Casing, SC-Short Round Thread Casing, NU-Non-unset tubing, EU-External Unset tubing, NA- Not Applicable

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

FOR MAHARASHTRA SEAMLESS LTD
DEBTANU PAL - Asst. Engineer

Maharashtra Seamless Ltd. Vile Bhagad SEAMLESS

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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: msltc@mahaseam.com.