



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

QCF 20A

Customer : 12682 Dated: 28-FEB-22  
P.O.No : 66210079 (Item No. 20)  
OC/Loading slip no. : ASTM A106 Gr.B; API 5L Gr.B/X42 PSL-1  
Specification : Hot Finished seamless carbon steel pipes  
Process/Type of Pipe :

OD X WT : 114.30 mm X 6.02 mm  
Length Range : 20 - 20 Feet  
Total Length : 9620 Feet ( 481 Pcs )  
Material Code :

Test Certificate No: MSL-6/QC/00011/2022  
Date: 05 July 2022

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A) CHEMICAL COMPOSITION (%) - Reference standard ASTM A-751 & ASTM E-415		Reference standard ASTM E-23														Reference standard ASTM E-18															
SI No	Heat No	Test Unit	Analy sis	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 Reqs.					
Req.	Min.	Max.	%	0.260	0.290	0.100	0.030	0.010	0.400	0.150	0.400	0.400	0.080	0.110	0.110																
1	AB475	H	H	0.170	1.040	0.250	0.017	0.004	0.022	0.0020	0.007	0.006	0.0070	0.0030	0.0000	0.0100	0.0100	0.0003	-	0.035	-	6.118	0.013	-	0.350						
2	AB726	P1	P1	0.180	1.030	0.250	0.016	0.005	0.023	0.0030	0.008	0.007	0.0068	0.0028	0.0001	0.0096	0.0097	0.0002	-	0.036	-	5.722	0.015	-	0.359						
3	AB728	P2	P2	0.170	1.050	0.240	0.017	0.003	0.022	0.0020	0.006	0.005	0.0071	0.0029	0.0002	0.0100	0.0102	0.0003	-	0.034	-	6.176	0.011	-	0.352						
		H	H	0.160	1.010	0.260	0.013	0.006	0.012	0.0010	0.007	0.004	0.0050	0.0010	0.0010	0.0060	0.0070	0.0004	-	0.032	-	6.313	0.011	-	0.333						
		P1	P1	0.170	1.010	0.260	0.013	0.007	0.012	0.0010	0.008	0.005	0.0049	0.0012	0.0009	0.0061	0.0070	0.0003	-	0.033	-	5.941	0.013	-	0.343						
		P2	P2	0.160	1.020	0.270	0.012	0.006	0.011	0.0000	0.006	0.003	0.0051	0.0011	0.0011	0.0062	0.0073	0.0004	-	0.031	-	6.375	0.009	-	0.334						
		H	H	0.170	1.050	0.250	0.010	0.005	0.018	0.0020	0.010	0.006	0.0050	0.0020	0.0013	0.0070	0.0083	0.0004	-	0.029	-	6.176	0.016	-	0.351						
		P1	P1	0.180	1.040	0.240	0.009	0.005	0.019	0.0030	0.011	0.007	0.0048	0.0018	0.0013	0.0066	0.0079	0.0003	-	0.030	-	5.778	0.018	-	0.360						
		P2	P2	0.160	1.060	0.250	0.010	0.004	0.018	0.0020	0.009	0.005	0.0051	0.0019	0.0014	0.0070	0.0084	0.0004	-	0.028	-	6.625	0.014	-	0.343						
C) MECHANICAL PROPERTIES		Reference standard ASTM E-370 & E-8														Reference standard ASTM E-18															
SI No.	Heat No.	Test Unit	Quantity	Name of the Steel Maker and Address/Supplier Heat No.		Tensile Testing (Loc: Pipe Body)				CVN Impact Test (Pipe Body)				Through Wall Hardness (Pipe Body)																	
Req.	Min.	Max.	Pcs	Feet	Feet	YST (Mpa)	UTS (Mpa)	YSY Ratio	EI (%)	YST (Mpa)	UTS (Mpa)	YSY Ratio	EI (%)	Absorbed Energy (J)	% Shear Area	Hardness (HRB)															
						290	414	30								Transverse Direction															
						G.L.=50 mm Nom. Width= 25.40 mm				Temperature °C:																					
						1	2	3	Avg	1	2	3	4	Avg	1	2	3	4	Avg	1	2	3	4	Avg	1	2	3	4	Avg		
1	AB475		14	280	JSW, Chhatnagarh/ M005394B	349.64	472.74	0.74	39.60																						
2	AB726		308	6160	JSW, Chhatnagarh/ M007292B	354.00	500.09	0.71	35.46																						
3	AB728		159	3180	JSW, Chhatnagarh/ M007267B	348.52	496.29	0.70	36.42																						
Raw Material		Fully killed & Fine Grain Practice		Dimension		Good		Good		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS	
Steel Route		EAF-LRF-VD-CCM		Weight		Good		Good		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS	
Hot Rolling Temp. °C		880-940		End Finish		Bevel		Bevel		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS	
Heat Treatment		NA		Straightness		OK		OK		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS	
Delivery Condition		R		Visual		OK		OK		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS	
Norm./Temp. Temp(°C)		NA		Bend Test		NA		NA		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS	
HIC		NA		SSC		NA		NA		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS	
Inclusion Rating		NA		Hot Straight. Temp. °C		NA		NA		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS		UTS	
D) Marking/Steindling:		MAHA (M) MSL API 5L B / X-42 PSL-1 / ASTM A106 GRB / NACE MR0175 / MR0103 (H2S & HARDNESS CONTROLLED) SMIS BE SRL OD 4.50 INCH X WT 0.237 INCH HFS HEAT NO. ... + 2970 PSI + LENGTH ... IN FEET + WEIGHT - 10.80 LB/FT + MADE IN INDIA + PO/SHIPPING MARK: "PO #25.436" + B.N.O...		3) Mad. Confirms to API 5L GR.B PSL-1 / X42 (EDN. 2018) / ASTM/ASME A106 B (EDN. 2019a) / SA106 B (EDN. 2021).		2) *Country of melt and pour: INDIA*																									
E) Remarks																															

Legends: T-Transverse, L-Longitudinal, YST-Yield Strength, UTS-Ultimate Tensile Strength, EI-Elongation, GL-Gauge Length, H-Heat, P1-Product 1, P2-Product 2, R-As Rolled, Q-Quenched & Tempered, N-Normalised, N&T-Normalised & Tempered, PB-Plain-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



FOR MAHARASHTRA SEAMLESS LTD  
DEBTANU PAL - Asst. Engineer

The material has been manufactured, sampled, tested and inspected and has been found conforming to the specification and PO  
W & R.O: D-114, MIDC Industrial Area, Vile - Bhagad, Varchhadi, Dist. Raigad, Maharashtra-402308 Phone: 9223685171  
Warning: Modification or unauthorized use of this certification is strictly prohibited. Violation calls for criminal prosecution. For authenticity verification, you can contact us at: mslic@mahaseam.com.