

Heat: LN0374
Your PO: PO241429-08

Order: 3082014 Line: 1
Item:



2669 Martin Luther King Jr Blvd
Youngstown, OH 44510

VALLOUREC STAR LP
Seamless Tubular Products

Certified Test Report
01/25/2022
Revision: 0

Order: Y-221120786-001 **Desc:** Seamless Line Pipe- Normalized Rolled **SLN / (Heat):** LN0374
Grade: API 5L X42/B N/BN PSL2 46th Edition April 01, 2018 **Customer Order:** 298112 **Split:** 00
OD(in): 6.625 **Wall(in):** 0.280 **Lbs/Ft:** 18.99 **Length:** Double Random
End Finish: Plain End Beveled
Comments: Melted and Manufactured in Youngstown, Ohio USA
Pipe is also manufactured to: ASTM A106B/C-19a, ASTM A53B-20, ASME SA106B/C-2021, ASME SA53B-2021. Vallourec Star's QA program meets the requirements of DIN EN10204-2004 Type 3.1. Satisfies NACE MR0175/ISO15156:2015 and ANSI/NACE MR0103/ISO17945:2015.
No repair welding has been conducted. Material is free from Mercury.

Mechanical Properties

Orientation	Type	Position	Tensile Size Specimen Cross Section			Strength (ksi)			Elongation		
			Width (in)	Thick (in)	Area (sqin)	Yield	Tensile	Y/T Ratio	Gage Length	% Elong	% RA
Longitudinal	Strip	Lead	1.000	0.300	0.3000	50.6	73.5	0.69	2	37.9	60.4

Required Min/Max Yield Strength (ksi): 42.1/71.8 **Required Min/Max Tensile Strength (ksi):** 70/95 **Calculated Max Internal Yield (psi):** 3742

Required Min Elongation(%): 30

Supplemental Requirements

Flattening Test	PASS
Hardness 3 Point	75.6 avg HRBW
Hydrostatic Pressure	2670 psi
Hydrostatic Hold Time	5 seconds

Chemical Analysis **Chem Spec:** 61M

WT%	C	Mn	P	S	SI	Cu	Ni	Cr	Mo	Sn	Nb	V	Al	Ca	B	Ti	N	C.E.
Heat	0.20	0.69	0.009	0.006	0.21	0.21	0.08	0.11	0.03	0.010	0.000	0.001	0.033	0.0023	0.0001	0.002	0.0093	0.37
Product 1	0.20	0.69	0.009	0.005	0.21	0.22	0.07	0.11	0.03	0.009	0.000	0.001	0.034	0.0020	0.0001	0.002	0.0079	0.36
Product 2	0.20	0.68	0.009	0.005	0.20	0.22	0.07	0.11	0.03	0.009	0.000	0.001	0.034	0.0022	0.0001	0.002	0.0078	0.36

Charpy Impact Testing - Not required per API.

This material has been produced and tested in accordance with the requirements of applicable specifications unless otherwise listed below. We hereby certify that the above test results are representative of those contained in the records of the company. Any modification to this certification as provided by Vallourec Star without the expressed written consent of Vallourec Star negates the validity of this test report. Vallourec Star is not responsible for the inability of this material to meet specific applications.

THIS CERTIFICATE IS NOTARIZED ONLY WHEN REQUESTED.

Signed:

Name: Jeff Schultz, Lab Supervisor

Date Approved: 01/26/2022

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Inspection Company: Tuboscope

Non-Destructive Evaluation Criteria

EMI CHANNELS

ID

10% Longitudinal
10% Transverse

OD

5% Longitudinal
5% Transverse

WALL THICKNESS CHECK

75% Wall Reduction
87.5% Wall Reduction
Required Volumetric Coverage: 100%

END AREA

Mag. Particle (Ref. Ind. Burmah/Castrol Strip)

OD

White Light
Longitudinal

ID

White Light
Longitudinal

Wall

Method: UT or Go/No-Go
25% Wall Thickness Verification

ADDITIONAL REQUIREMENTS

Notch Length 1.5" Max
Notch Width .020" Max
PSL2