

LINCOLN ELECTRIC ADDITIVE SOLUTIONS

# 316LSi STAINLESS STEEL



## KEY FEATURES

316LSi stainless steel is known for its good atmospheric and chemical corrosion resistance. Its high creep strength, stress-to-rupture and tensile strength at high temperatures along with excellent toughness at cryogenic temperatures makes 316LSi stainless steel ideal for applications such as: oil & gas, petrochemical, power generation, marine, chemical and more.

316LSi stainless steel mechanical properties compare favorably to the following stainless steel grades:

- ASTM A240, Grade 316/316L
- ASTM A351, Grade CF3M
- ASTM A743, Grade CF3M
- ASTM A744, Grade CF3M

## Typical Applications »

- Oil & Gas and Petrochemical
- Energy and Power Generation
- Marine
- Pulp & Paper
- Chemical
- Architectural

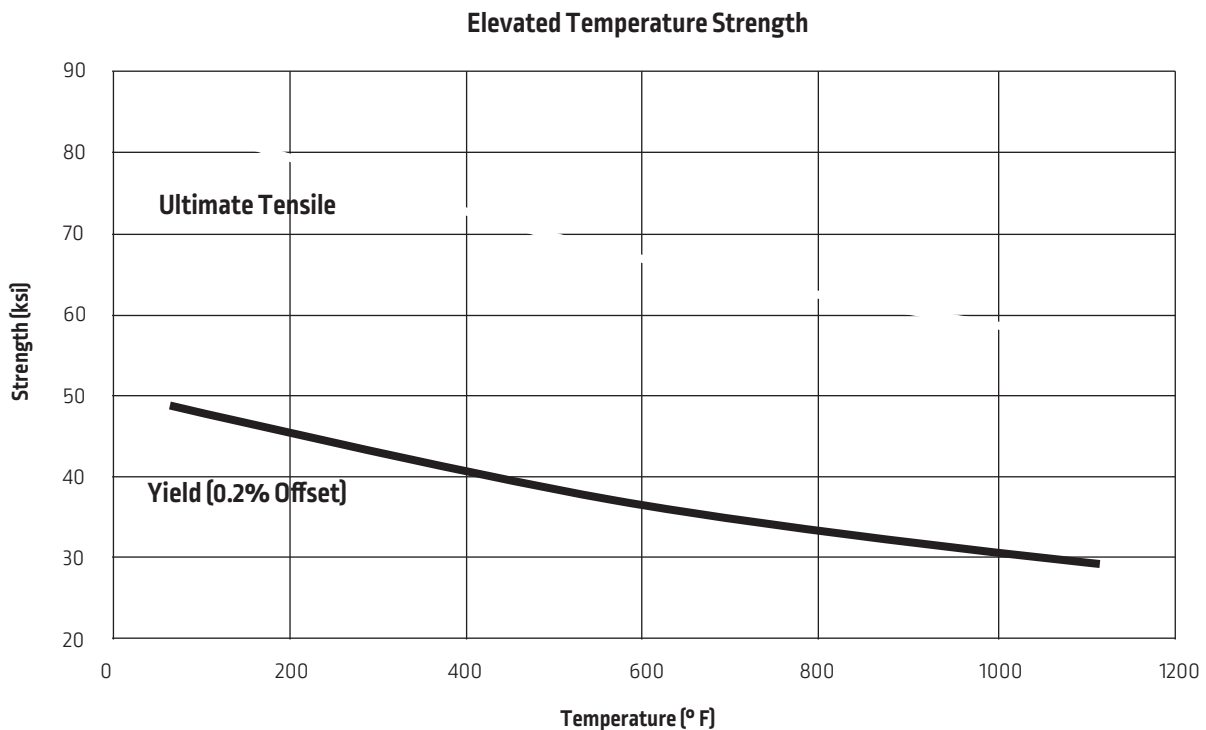
## NOMINAL MECHANICAL PROPERTIES (AS-PRINTED)<sup>[1]</sup>

GMAAM <sup>[2]</sup>	Room Temperature Strength			Toughness	
	YS @ 0.2% Off (ksi)	UTS (ksi)	Elong (%)	ft-lbs @ 70 °F	ft-lbs @ -40 °F
316LS <sup>[3]</sup>	48	85	40	> 50	> 50

[1] As-Printed indicates deposits were not subject to post-weld heat treatment

[2] Gas Metal Arc Additive Manufacturing (GMAAM)

[3] Weld deposit composition meets the requirements of an A-No. 8 designation per QW-442 of the ASME Boiler and Pressure Vessel Code, Section IX



### Test Results

Test results for mechanical properties were obtained from GMAAM deposits produced and tested according to prescribed standards. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any GMAAM component before use in the intended application. This data is for illustrative purposes only. Actual results may vary.

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