

MIDALLOY ER316LMn BARE WIRE (FORMERLY MIDALLOY 1.4455)

CLASSIFICATION

- AWS 5.9 Class ER316LMn / ASME SFA 5.9 Class ER316LMn UNS S31682
• ISO 20 16 3 Mn
• DIN 1.4455 X2CrNiMnMoN20 16

DESCRIPTION

- MIDALLOY ER316LMn bare welding wire is an austenitic stainless steel with low or no ferrite.

APPLICATIONS

- ER316LMn is used in the cryogenic industry to obtain low impact toughness and high strength. ER316LMn has been used to join 3% and 9% Nickel steels, Type 201,304L, and 316L. All weld metal results performed at -320°F have minimum impact strengths of 25 ft-lbs and 15 mils lateral expansion.
• Typical applications include welding, repairing, and overlaying of grades of stainless steel like type 316L when weld metal ferrite is needed to be low.

TYPICAL CHEMISTRY

Table with 11 columns: C, Mn, Si, Cr, Ni, Mo, Cu, Cb (Nb), S, P, N. Values: .012, 7.03, 0.40, 20.3, 16.50, 3.10, 0.05, 0.005, 0.010 max, 0.015 max, 0.18

FN per WRC92 is 2 FN maximum.

TYPICAL ALL WELD METAL MECHANICAL PROPERTIES\*

Table with 2 columns: Property, Value. Rows: TENSILE STRENGTH (100,000 PSI), YIELD STRENGTH (63,000 PSI), ELONGATION IN 2" (>30%), IMPACTS AT -320F (35-38 MILS LATERAL EXPANSION)

\* Tensile strengths in excess of 100,000 psi have been obtained in 9% Nickel due to influence of base metal dilution.

WELDING PARAMETERS

This wire has been utilized with GMAW, GTAW, and SAW processes (with IND 24 flux and IND 27 flux).

STANDARD PACKAGING

- TIG 10 Lb. Tube / 60 Lb. Carton
• MIG 30 Lb. Spool
• SAW 60 Lb. Coil

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