

MIDALLOY ER316L LF (Low Ferrite) CRYO BARE WIRE

CLASSIFICATION

- AWS 5.9 Class ER316L / ASME SFA 5.9 Class ER316L
- ISO 14343A Grade 19 12 3 L
- UNS S31683 A#8 F#6

DESCRIPTION

- MIDALLOY ER316L LF CRYO bare welding wire is an austenitic stainless steel with 0 to 5 ferrite.

APPLICATIONS

- ER316L LF is used in the cryogenic industry to obtain low impact toughness and high strength. ER316L LF has been used to join Type 201, 304, 304L, 316, and 316L. All weld metal results performed at -320°F result in impact strengths of 40 ft-lbs and 38 mils lateral expansion.
- Typical applications include welding, repairing and overlaying of grades of stainless steel like type 316L when weld metal ferrite needs to be low.
- Can be used in most cases at -452°F.

TYPICAL CHEMISTRY

C	Mn	Si	Cr	Ni	Mo	Cu	S	P	N
0.017	1.75	0.35	18.25	12.25	2.08	0.12	0.005	0.019	0.08

Ferrite per WRC92 is less than 5 FN or 5% ferrite.

TYPICAL ALL WELD METAL MECHANICAL PROPERTIES

TENSILE STRENGTH	86,000 PSI
YIELD STRENGTH	53,000 PSI
ELONGATION IN 2"	40%
IMPACTS AT -320F°	40 FT-LBS. & 38 MILS LATERAL EXPANSION

WELDING PARAMETERS

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

STANDARD PACKAGING

- TIG 10 lb. tube / 60 lb. carton sizes 1/16", 3/32 "and 1/8"
- MIG 30 lb. spool Size 0.035", 0.045" and 0.062"
- SAW 60 lb. coil Size 1/16", 3/32", and 1/8"

9/21/10

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. We reserve the right to modify or improve the designs or specifications of such products at any time without notice.