

SelectAlloy 308L-AP_LNG

Stainless Steel / Gas Shielded / Flux Cored

PRODUCT DATA SHEET

FEATURES

- Specially formulated to produce good weld metal toughness via strict weld metal chemical composition control.
- Resulting deposited ferrite is consistently between 3-7 FN when measured either by predictive methods or using magnetic induction methods.
- Low C, < 0.04 wt%, minimizes carbide precipitation (sensitization) which makes the weld metal more resistant to intergranular corrosion.
- Designed for welding in all positions where well washed beads can be achieved with minimal weaving in 75-80% Ar/balance CO2 shielding gas.
- Smooth arc transfer produces minimal spatter.
- Applications for this alloy type include fabrication or repair of cryogenic components of similar composition that require weld metal toughness to maintained at temperatures of -320°F (-196°C).

CONFORMANCES

AWS A5.22

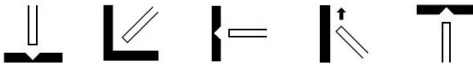
E308LT1-4

E308LT1-4J

DIAMETERS (in [mm])

0.045 (1.2), 1/16 (1.6)

POSITIONS



SHIELDING GAS

75-80% Ar + balance CO2

Flow Rate: 40 - 50 CFM

POLARITY

Direct Current Electrode Positive (DCEP)

TYPICAL WELD DEPOSIT CHEMISTRY (WT%)

| Shielding Gas | C | Cr | Cu | Mn | Mo | Ni | P | S | Si | WRC-1992 Ferrite |
|----------------|------|------|------|------|------|------|------|------|------|------------------|
| 75%Ar / 25%CO2 | 0.03 | 18.7 | 0.16 | 1.31 | 0.12 | 10.2 | 0.02 | 0.01 | 0.80 | 4 |

Bismuth is not intentionally added and levels are not known to be greater than 0.002 (WT%)

TYPICAL MECHANICAL PROPERTIES

| Shielding Gas | Tensile Strength ksi (MPa) | Yield Strength ksi (MPa) | Elongation (%) | Weld Condition | PWHT Temp | CVN @ -320°F (-196°C) ft-lb (J) | Lateral Expansion |
|----------------|-------------------------------|-----------------------------|-------------------|-------------------|--------------|---------------------------------------|----------------------|
| 75%Ar / 25%CO2 | 84 (583) | 54 (372) | 42 | As-Welded | - | 32 (43) | 25 (mils) |



Notice: Be sure to follow all your employers safety practices, policies and procedures when using this product. Refer to CSA W117.2 and ANSI Z49.1 Safety in Welding, Cutting and Allied Processes for further information and the manufactures SDS sheet. The results reported are based upon testing of the product under controlled laboratory conditions in accordance with American Welding Society Standards. Actual use of the product may produce different results due to varying conditions. An example of such conditions would be electrode size, plate chemistry, environment, weldment design, fabrication methods, welding procedure and service requirements. Thus the results are not guarantees for use in the field. The manufacturer disclaims any warranty of merchantability or fitness for any particular purpose with respect to its products.

RECOMMENDED WELDING PARAMETERS

| Diameter in (mm) | Shielding Gas | Position | WFS* in/min (m/min) | Amps | Volts | CTWD* in (mm) |
|------------------|----------------|-------------------|---------------------|------|-------|---------------------|
| 0.045 (1.2 mm) | 75% Ar/25% CO2 | All-Position | 215 (5.5) | 130 | 23 | 1/2 - 5/8 (13 - 16) |
| | | All-Position | 260 (6.6) | 145 | 24.5 | 1/2 - 5/8 (13 - 16) |
| | | All-Position | 310 (7.9) | 160 | 26 | 1/2 - 5/8 (13 - 16) |
| | | Flat & Horizontal | 420 (10.7) | 180 | 27.5 | 5/8 - 3/4 (16 - 19) |
| | | Flat & Horizontal | 450 (11.4) | 200 | 29 | 5/8 - 3/4 (16 - 19) |
| 1/16 (1.6 mm) | 75% Ar/25% CO2 | All-Position | 135 (3.4) | 160 | 23 | 5/8 - 3/4 (16 - 19) |
| | | All-Position | 190 (4.8) | 195 | 24.5 | 5/8 - 3/4 (16 - 19) |
| | | All-Position | 225 (5.7) | 210 | 26 | 5/8 - 3/4 (16 - 19) |
| | | Flat & Horizontal | 255 (6.5) | 225 | 27.5 | 3/4 - 1 (19 - 25) |
| | | Flat & Horizontal | 290 (7.4) | 245 | 29 | 3/4 - 1 (19 - 25) |

* WFS = Wire Feed Speed, CTWD = Contact Tip To Work Distance

APPROVALS

| Agency | Approval | Shielding Gas | Diameter(s) in (mm) |
|--------|------------|----------------------|---------------------|
| ABS | E308LT1-4J | M21 (75%Ar / 25%CO2) | 0.045 (1.2) |

PACKAGING (lbs [kgs])

33 (15) Spools, 60 (27.2) Coils, 500 (226.8) Round Drum, 800 (362.9) Hex Drum, 900 (408.2) Hex Drum

*Some packaging options may not be available depending on diameter and product. Special package options may be available upon request.

STORAGE AND HANDLING

All products should be stored in original packaging, in dry conditions and handled with care. For more information refer to our website.



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