

SelectAlloy 308L-AP

Description:

SelectAlloy 308L-AP is a gas-shielded, flux cored, stainless steel electrode designed to weld in all positions. It has a nominal weld metal composition of 20% Cr, 10% Ni and a maximum carbon content of 0.04%. The low carbon in this alloy minimizes carbide precipitation and makes it more resistant to intergranular corrosion. It is designed for use with 100% carbon dioxide or a blend of 75-80% argon/balance carbon dioxide. Shielding gas mixtures with more than 75-80% Argon are not recommended.

Classifications & Approvals:

- E308LT1-1, E308LT1-4 per AWS A5.22 (Also meets E308T1-1, E308T1-4)
- ABS: E308LT1-1, E308LT1-4
- CWB: E308LT1-1, E308LT1-4
- DNV NV 308L (CO₂)

Characteristics:

SelectAlloy 308L-AP provides superb performance characteristics in all positions, using either CO₂ or argon + 20-25% CO₂ shielding gas. Flat, well washed beads can be achieved with minimal weaving. Spatter is very low and slag peeling is excellent, minimizing cleanup.

Applications:

SelectAlloy 308L-AP finds wide application in the welding of components for the chemical, paper, textile and pharmaceutical industries. It may be used to weld 301, 302, 304L, 308, and 308L stainless steel. Types 321 and 347 may also be welded as long as the service temperature does not exceed 500°F.

Typical Mechanical Properties(CO₂)*:

Ultimate Tensile Strength (psi)	83,000
Yield Strength (psi)	60,000
Percent Elongation	38

*Strength levels will be slightly higher w/Ar+20-25% CO₂

Typical Weld DepositChemistry:

Shielding Gas	C	Mn	Cr	Si	Ni	N
100CO ₂	0.03	1.22	20.30	0.87	10.70	0.05
Ferrite Number (WRC, 1992) - 9						

Typical Welding Parameters (CO₂)*:

Diameter	WFS (ipm)	Amperage	Voltage	ESO	Dep. Rate (lbs/hr)
.035"	300	110	25	5/8"- 3/4"	3.3
.035"	500	150	26	5/8"- 3/4"	5.4
.035"	600	165	27	5/8"- 3/4"	6.3
.035"	700	175	28	5/8"- 3/4"	7.7
.045"	250	130	24	5/8"- 3/4"	5.4
.045"	300	160	26	5/8"- 3/4"	6.3
.045"	425	200	28	5/8"- 3/4"	9.2
.045"	780	270	34	5/8"- 3/4"	16.2
1/16"	150	70	25	3/4"-1"	5.4
1/16"	195	215	27	3/4"-1"	7.0
1/16"	240	250	28	3/4"-1"	8.6
1/16"	320	305	29	3/4"-1"	11.5

* Optimum conditions are in **boldface type**. Reduce by 2 volts when using Ar+20-25% CO₂.

Rev 0 (03/13/2014)

Notice: 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. 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.