

## SelectAlloy 308L-AP CRYO

### Description:

SelectAlloy 308L-AP CRYO is a gas-shielded, flux cored, stainless steel electrode designed to weld in all positions. It has a nominal weld metal composition of 18.5% Cr, 10% Ni and a maximum carbon content of 0.04%. It is designed for cryogenic applications where good weld metal toughness is required. The recommended shielding gas is argon + 20-25% CO<sub>2</sub>.

### Classifications:

- E308LT1-4 per AWS A5.22

### Characteristics:

SelectAlloy 308L-AP CRYO provides superb performance characteristics in all positions, using argon + 20-25% CO<sub>2</sub> 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 CRYO is designed to be used in the fabrication and repair of cryogenic components. These applications require weld metal toughness at temperatures of -320°F.

### Typical Mechanical Properties(Ar-25%CO<sub>2</sub>):

Ultimate Tensile Strength (psi)	86,000
Yield Strength (psi)	59,000
Percent Elongation	50
CVN @ -320°F (ft-lbs)	28
Lateral Expansion @-320°F (mils)	24

### Typical Weld DepositChemistry(Ar-25%CO<sub>2</sub>):

Shielding Gas	C	Cr	Ni	Mn	Si	N
75Ar/25CO <sub>2</sub>	0.03	18.40	10.50	1.20	0.80	0.05

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### Typical Welding Parameters (Ar-25%CO<sub>2</sub>)\*:

Diameter	WFS (ipm)	Amperage	Voltage	ESO (in.)	Dep. Ratelbs/hr
.035"	300	110	25	5/8-3/4	3.3
<b>.035"</b>	<b>500</b>	<b>150</b>	<b>26</b>	<b>5/8-3/4</b>	<b>5.4</b>
<b>.035"</b>	<b>600</b>	<b>165</b>	<b>27</b>	<b>5/8-3/4</b>	<b>6.3</b>
.035"	700	175	28	5/8-3/4	7.7
.045"	250	130	24	5/8-3/4	5.4
<b>.045"</b>	<b>300</b>	<b>160</b>	<b>26</b>	<b>5/8-3/4</b>	<b>6.3</b>
<b>.045"</b>	<b>425</b>	<b>200</b>	<b>28</b>	<b>5/8-3/4</b>	<b>9.2</b>
.045"	780	270	34	5/8-3/4	16.2
1/16"	150	170	25	3/4-1	5.4
<b>1/16"</b>	<b>195</b>	<b>215</b>	<b>27</b>	<b>3/4-1</b>	<b>7.0</b>
<b>1/16"</b>	<b>240</b>	<b>250</b>	<b>28</b>	<b>3/4-1</b>	<b>8.6</b>
1/16"	320	305	29	3/4-1	11.5

\* Optimum conditions are in **boldface type**.

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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.