

## SelectAlloy 308L-C

### Description:

SelectAlloy 308L-C is a gas shielded, metal cored, stainless steel electrode. It has a composition of 21% Cr, 10% Ni and a maximum carbon content of 0.03%. The low carbon in this alloy minimizes carbide precipitation and makes it more resistant to intergranular corrosion. It is designed for use with argon/1-2% oxygen or argon/1-2% CO<sub>2</sub> shielding gases.

### Classification:

- EC308; EC308L per AWS A5.22 (Also per AWS A5.9:2006)
- CWB Approval EC 308L

### Characteristics:

SelectAlloy 308L-C operates smoothly with a smooth, spray arc transfer. It produces little or no slag and virtually no spatter, minimizing cleanup. It offers higher deposition rates and more controlled penetration than the equivalent solid electrode. As a result it operates at higher travel speeds and handles poor fitup.

### Applications:

SelectAlloy 308L-C is ideally suited for making small butt, lap and fillet welds on thin material at elevated travel speeds. It may be used to weld 301, 302, 304L, 308, 308L grades of stainless. Types 321 and 347 may also be welded as long as the service temperature does not exceed 500°F. Typical applications are in-welded components for the chemical, paper, textile and pharmaceutical industries and food service equipment.

### Typical Mechanical Properties

Ultimate Tensile Strength (psi)	82,600
Yield Strength (psi)	57,000
Percent Elongation	38

### Typical Weld Deposit Chemistry (Ar-2%O<sub>2</sub>):

<u>C</u>	<u>Mn</u>	<u>Cr</u>	<u>Si</u>	<u>Ni</u>	<u>N*</u>
0.025	1.75	20.90	0.50	9.90	0.05
Ferrite Number (WRC, 1992) - 7					

### Typical Welding Parameters (DCEP)\*:

Diameter	WFS (ipm)	Amperage	Voltage	ESO (in.)	Dep. Rate (lbs/hr)
.035"	350	155	22	1/2-5/8"	5.9
<b>.035"</b>	<b>500</b>	<b>205</b>	<b>23</b>	<b>1/2-5/8"</b>	<b>8.6</b>
<b>.035"</b>	<b>600</b>	<b>230</b>	<b>25</b>	<b>1/2-5/8"</b>	<b>10.2</b>
.035"	700	245	26	1/2-5/8"	11.8
.045"	250	180	21	1/2-5/8"	7.1
<b>.045"</b>	<b>400</b>	<b>240</b>	<b>23</b>	<b>1/2-5/8"</b>	<b>11.3</b>
<b>.045"</b>	<b>500</b>	<b>280</b>	<b>25</b>	<b>1/2-5/8"</b>	<b>14.1</b>
.045"	650	300	28	1/2-5/8"	18.4
1/16"	150	190	24	3/4-1"	7.7
<b>1/16"</b>	<b>250</b>	<b>280</b>	<b>25</b>	<b>3/4-1"</b>	<b>12.8</b>
<b>1/16"</b>	<b>350</b>	<b>2385</b>	<b>26</b>	<b>3/4-1"</b>	<b>17.9</b>
1/16"	400	490	32	3/4-1"	23.1

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

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.

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