

## SelectAlloy 16-8-2-C

### Description:

**SelectAlloy 16-8-2-C** is a gas-shielded, metal cored, stainless steel electrode. It has a nominal composition of 15.5% Cr, 8.5% Ni and 1.5% Mo. It is designed for use with argon/1-2% oxygen or argon/1-2% CO<sub>2</sub> shielding gases.

### Classification:

- EC16-8-2 per AWS A5.9

### Characteristics:

**SelectAlloy 16-8-2-C** operates 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 is better at handling poor fitup.

### Applications:

**SelectAlloy 16-8-2-C** may be used to weld 16-8-2, 316, and 347 grades of stainless steel in high temperature piping systems. It has good hot ductility properties and is well suited for welding cat crackers, furnace parts, and components used in the petrochemical, chemical processing and power generation industries. It is also ideally suited for making small butt, lap and fillet welds on thin material at elevated travel speeds.

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

Ultimate Tensile Strength (psi)	88,600
Yield Strength (psi)	57,000
Percent Elongation	38

### Typical Weld Deposit Chemistry (wt%):

Shielding Gas	C	Cr	Ni	Mo	Mn	Si
98CO <sub>2</sub> /2O <sub>2</sub>	0.03	16.0	8.5	1.5	1.6	0.6
Ferrite Number (WRC, 1992) - 4						

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

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>385</b>	<b>26</b>	<b>3/4" -1</b>	<b>17.9</b>
1/16"	450	490	32	3/4" -1	23.1

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

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.