

## SelectAlloy 347

### Description:

**SelectAlloy 347** is a gas-shielded, flux cored, stainless steel electrode designed to weld in the flat and horizontal positions. It has a nominal weld metal composition of 19.5% chromium, 10% nickel and 0.6% columbium (niobium). The columbium forms a stable carbide. This reduces chromium carbide precipitation and makes the weld metal more resistant to intergranular corrosion. **SelectAlloy 347** is designed for use with 100% carbon dioxide or a blend of 75-80% argon/balance carbon dioxide. Shielding gas mixes with more than 75-80% Argon are not recommended.

### Classifications:

- E347T0-1, E347T0-4 per AWS A5.22

### Characteristics:

**SelectAlloy 347** produces an even and well washed bead with either CO<sub>2</sub> or argon + 20-25% CO<sub>2</sub> shielding gas. The arc transfer is smooth, with minimal spatter. The slag peels freely, minimizing cleanup time.

### Applications:

**SelectAlloy 347** finds application in the welding of furnace parts, pressure vessels, chemical tanks and automotive parts. It is used to weld types 321, 347 and 348 stainless steel.

### Typical Mechanical Properties (CO<sub>2</sub>)\*:

Ultimate Tensile Strength (psi)	89,000
Yield Strength (psi)	61,000
Percent Elongation	36

\*Strength levels will be slightly higher w/Ar+20-25% CO<sub>2</sub>

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

Shielding Gas	C	Cr	Ni	Cb	Mn	Si	N
100CO <sub>2</sub>	0.05	19.90	10.20	0.70	1.00	0.70	0.05

Ferrite Number (WRC, 1992) - 8

### Typical Welding Parameters:

Diameter	WFS (ipm)	Amperage	Voltage	ESO	Dep. Rate (lbs/hr)
.035"	300	110	24	1/2"-5/8"	3.8
<b>.035"</b>	<b>400</b>	<b>135</b>	<b>26</b>	<b>1/2"-5/8"</b>	<b>5.1</b>
<b>.035"</b>	<b>550</b>	<b>160</b>	<b>27</b>	<b>1/2"-5/8"</b>	<b>6.8</b>
.035"	650	175	29	1/2"-5/8"	8.2
.045"	200	120	25	5/8"-3/4"	4.3
<b>.045"</b>	<b>335</b>	<b>170</b>	<b>27</b>	<b>5/8"-3/4"</b>	<b>7.1</b>
<b>.045"</b>	<b>440</b>	<b>200</b>	<b>29</b>	<b>5/8"-3/4"</b>	<b>9.3</b>
.045"	780	290	35	5/8"-3/4"	17.0
1/16"	150	150	24	3/4"-1"	5.0
<b>1/16"</b>	<b>235</b>	<b>210</b>	<b>28</b>	<b>3/4"-1"</b>	<b>7.8</b>
<b>1/16"</b>	<b>345</b>	<b>270</b>	<b>31</b>	<b>3/4"-1"</b>	<b>11.3</b>
1/16"	500	350	34	3/4"-1"	17.0

\* Optimum conditions are in boldface type. Lower by 2 volts when using Ar+20-25% CO<sub>2</sub>.

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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.