

SelectAlloy 347C

Description:

SelectAlloy 347C is a gas-shielded, metal cored, stainless steel electrode. It has a nominal composition of 20% chromium, 10% nickel and 0.7% columbium (niobium). The columbium forms a stable carbide. This reduces chromium carbide precipitation and increases resistance to intergranular corrosion. It is designed for use with argon/1-2% oxygen or argon/1-2% CO₂ shielding gases.

Classification:

- EC347 per AWS A5.22 (Also per AWS 5.9:2006)

Characteristics:

SelectAlloy 347C 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 handles poor fit up.

Applications:

SelectAlloy 347C is ideally suited for making small butt, lap and fillet welds on thin material at elevated travel speeds. It finds wide 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 (98% Ar-2% O₂):

Ultimate Tensile Strength (psi)	92,900
Yield Strength (psi)	63,100
Percent Elongation	38

Typical Weld Deposit Chemistry (wt%):

Shielding Gas	C	Cr	Ni	N	Mn	Si	Cb
98Ar/2 O ₂	0.05	20.10	10.00	0.05	1.20	0.47	0.70
Ferrite Number (WRC, 1992) - 9							

Typical Welding Parameters (Ar-2%O₂)*:

Diameter	WFS (ipm)	Amperage	Voltage	ESO	Dep. Rate (lbs/hr)
.035"	350	155	22	1/2"-5/8"	5.9
.035"	500	205	23	1/2"-5/8"	8.6
.035"	600	230	25	1/2"-5/8"	10.2
.035"	700	245	26	1/2"-5/8"	11.8
.045"	250	180	21	1/2"-5/8"	7.1
.045"	400	240	23	1/2"-5/8"	11.3
.045"	500	280	25	1/2"-5/8"	14.1
.045"	650	300	28	1/2"-5/8"	18.4
1/16"	150	190	24	3/4"-1"	7.7
1/16"	250	280	25	3/4"-1"	12.8
1/16"	350	385	26	3/4"-1"	17.9
1/16"	450	490	32	3/4"-1"	23.1

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

Rev 0 (03/14/2014)

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.