

SelectAlloy 317L-C

Description:

SelectAlloy 317L-C is a gas-shielded, metal cored, stainless steel electrode. It has a nominal composition of 19.5% Cr, 14% Ni, 3.5% Mo and a maximum carbon content of 0.03%. The higher level of molybdenum improves resistance to pitting and provides increased creep resistance. The low carbon content 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% CO₂ shielding gases.

Classifications:

- EC317L per AWS A5.9 (Also meets EC317 per AWS A5.9)

Characteristics:

SelectAlloy 317L-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 handles poor fit up.

Applications:

SelectAlloy 317L-C is ideally suited for making small butt, lap and fillet welds on thin material at elevated travel speeds. It finds application in the pulp and paper industry, food and pharmaceutical processing equipment. It has excellent resistance to pitting corrosion and is an excellent choice for applications involving solutions of sulfuric acid and sulfur bearing gases. It is used to weld type 316 and 317 stainless.

Typical Mechanical Properties (98% Ar-2% O₂):

Ultimate Tensile Strength (psi)	88,900
Yield Strength (psi)	69,100
Percent Elongation	34

Typical Weld Deposit Chemistry (98% Ar-2% O₂):

Shielding Gas	C	Cr	Ni	N	Mn	Si	Mo
98Ar/2CO ₂	0.02	19.60	13.30	0.05	1.40	0.50	3.30
Ferrite Number (WRC, 1992) - 8							

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**.

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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.