



SelectAlloy 16-8-2-AP

Description:

SelectAlloy 16-8-2-AP is a gas-shielded, flux cored, stainless steel electrode designed to weld in all positions. It has a nominal composition of 15.5% Cr, 8.5% Ni and 1.5% Mo. It is designed for use with 100% carbon dioxide or a blend of 75-80% argon/balance carbon dioxide. Shielding gas mixtures with more than 75-80% Argon are not recommended.

Classification:

- None available (meets EC 16-8-2 chemistry requirements of AWS A5.22)

Characteristics:

SelectAlloy 16-8-2-AP provides superb performance characteristics in all positions, using either CO₂ or argon + 20-25% CO₂ shielding gas. Flat, well washed beads can be achieved with minimal weaving. Spatter is very low and slag peeling is excellent, minimizing cleanup.

Applications:

SelectAlloy 16-8-2-AP 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.

Typical Mechanical Properties (CO₂):

Ultimate Tensile Strength (psi)	86,000
Yield Strength (psi)	56,000
Percent Elongation	38

Typical Weld Deposit Chemistry (wt%):

Shielding Gas	C	Cr	Ni	Mo	Mn	Si
100CO ₂	0.02	15.50	8.50	1.50	1.50	0.70
Ferrite Number (WRC, 1992) - 3						

Typical Welding Parameters (CO₂)*:

Diameter	WFS (ipm)	Amperage	Voltage	ESO (in.)	Dep. Rate (lbs/hr)
.035"	300	110	25	5/8"-3/4"	3.3
.035"	500	150	26	5/8"-3/4"	5.4
.035"	600	165	27	5/8"-3/4"	6.3
.035"	700	175	28	5/8"-3/4"	7.7
.045"	250	130	24	5/8"-3/4"	5.4
.045"	300	160	26	5/8"-3/4"	6.3
.045"	425	200	28	5/8"-3/4"	9.2
.045"	780	270	34	5/8"-3/4"	16.2
1/16"	150	170	25	3/4"-1"	5.4
1/16"	195	215	27	3/4"-1"	7.0
1/16"	240	250	28	3/4"-1"	8.6
1/16"	320	305	29	3/4"-1"	11.5

* Optimum conditions are in **boldface type**. Reduce by 2 volts when using Ar+20-25% CO₂.

Rev 0 (03/12/2014)

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.