

SelectAlloy C276-AP

Description:

SelectAlloy C276-AP is a gas-shielded, flux cored, nickel based electrode designed to weld in all positions. It has a nominal weld metal composition of 16% Mo, 15.5% Cr, 5.5% Fe, 4% W, balance Nickel and low carbon. It is primarily used for welding Ni-Cr-Mo to itself or to other nickel based alloys. It may also be used for surfacing steel and for joining nickel based alloys to steel. **SelectAlloy C276-AP** is designed for use with 75% argon/balance CO₂ or 100% CO₂ shielding gas.

Classification:

- ENiCrMo4T1-1/4 per AWS A5.34

Characteristics:

SelectAlloy C276-AP provides superb performance characteristics in all positions, using either argon + 25% CO₂ or 100% CO₂ shielding gas. Out of position deposition rates are significantly higher than those achieved with solid wires or covered electrodes. Flat, well washed beads can be achieved with minimal weaving. Spatter is very low and slag peeling is excellent, minimizing cleanup.

Applications:

SelectAlloy C276-AP has excellent resistance to crevice corrosion and pitting. It is used in pipelines, pressure vessels, chemical processing plants, offshore oil and gas facilities and marine environments.

Typical Mechanical Properties*:

Ultimate Tensile Strength (psi)	108,000
Yield Strength (psi)	64,000
Percent Elongation	42
CVN (ft-lbs) @ -320°F	31

Typical Weld Deposit Chemistry*:

<u>C</u>	<u>Cr</u>	<u>Mo</u>	<u>W</u>	<u>Fe</u>	<u>Mn</u>	<u>Ni</u>
0.02	15.90	16.10	4.10	6.0	0.40	Bal

*The properties shown are with CO₂ shielding gas. Results with Ar-25% CO₂ are very similar.

Typical Welding Parameters (Ar-25%CO₂)*:

Diameter	Position	Optimum			Range	
		Amperage	WFS	Voltage	Amperage	Voltage
.045"	Flat	180	400	27-28	125-200	25-30
	V-up/OH	140	300	26	120-165	25-27
1/16"	Flat	250	300	28	130-300	23-30
	V-up/OH	200	200	26	140-240	23-27

Use 1/2" Contact tip to work distance

* For CO₂ shielding increase voltage by 1.5 to 2 volts

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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.