SelectAlloy 182-AP

Nickel Alloy / Gas Shielded / Flux Cored

PRODUCT DATA SHEET

FEATURES

- Designed for welding in all positions in both 75-80% Ar/balance CO2 or 100% CO2 shielding gas
- Used for welding nickel-chromium-iron alloys, for welding the clad side of joints in steel clad with nickel-chromium-iron alloy and steel clad with ferritic chromium steel, and for surfacing steel with nickel-chromium-iron weld metal (when comparatively high manganese content in the weld metal is not detrimental for intended service).
- Typical applications include harsh environments that can be found in desalination, petrochemical, and power generation plants, and in temperature critical conditions such as furnace equipment and piping.

CONFORMANCES

AWS A5.34	ENiCrFe3T1-1
	ENiCrFe3T1-4
ASME SFA 5.34	ENiCrFe3T1-1
	ENiCrFe3T1-4

DIAMETERS [in (mm)]

0.045 (1.2), 1/16 (1.6)

POSITIONS

SHIELDING GAS

75-80% Ar + Balance CO2, 100% CO2
Flow Rate: 40 - 50 CFH

POLARITY

Direct Current Electrode Positive (DCEP)

TYPICAL WELD DEPOSIT CHEMISTRY [WT%]

Shielding Gas	C	Cr	Cu	Fe	Mn	Nb + Ta	Ni	P	S	Si	Ti
100%CO2	0.03	16.9	0.01	8.05	5.20	2.12	Bal.	<0.01	0.013	0.55	0.29
75%Ar / 25%CO2	0.03	17.1	0.01	8.45	5.75	2.30	Bal.	<0.01	0.014	0.58	0.30

TYPICAL MECHANICAL PROPERTIES

Shielding Gas	Tensile Strength ksi (MPa)	Yield Strength ksi (MPa)	Elongation (%)	Weld Condition	PWHT Temp
100%CO2	90 (621)	50 (345)	42	As-Welded	-
75%Ar / 25%CO2	91 (628)	51 (352)	42	As-Welded	-

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600 Enterprise Drive, P.O. Box 259, Fort Loramie, Ohio 45845-0259 • 800-341-5215 • www.Select-Arc.com

RECOMMENDED WELDING PARAMETERS **

Diameter in (mm)	Shielding Gas	Position	WFS* in/min (m/min)	Amps	Volts	CTWD* in (mm)
0.045 (1.2 mm)	75% Ar/25% CO2	All Positions	215 (5.5)	130	23	1/2 - 5/8 (13 - 16)
		All Positions	260 (6.6)	145	24.5	1/2 - 5/8 (13 - 16)
		All Positions	310 (7.9)	160	26	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	420 (10.7)	180	27.5	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	450 (11.4)	200	29	5/8 - 3/4 (16 - 19)
1/16 (1.6 mm)	75% Ar/25% CO2	All Positions	135 (3.4)	160	23	5/8 - 3/4 (16 - 19)
		All Positions	190 (4.8)	195	24.5	5/8 - 3/4 (16 - 19)
		All Positions	225 (5.7)	210	26	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	255 (6.5)	225	27.5	3/4 - 1 (19 - 25)
		Flat & Horizontal	290 (7.4)	245	29	3/4 - 1 (19 - 25)

** WFS = Wire Feed Speed, CTWD = Contact Tip To Work Distance*
***The parameters listed are recommended starting points of operation and the ranges for amperage, wfs, and voltage could be extended based on fitness for application. For products with "all-position" capability, as determined and listed in classification, the position recommendation can be determined based on operator skill and material thickness and isn't limited to the listing.*

Parameters were established in 75% Ar/25% CO2. Raise by 1-1.5 volts when using 100% CO2.

PACKAGING [lbs [kgs]]

33 (15) Spools, 60 (27.2) Coils, 500 (226.8) Round Drum, 800 (362.9) Hex Drum, 900 (408.2) Hex Drum

**Some packaging options may not be available depending on diameter and product. Special package options may be available upon request.*

STORAGE AND HANDLING

All products should be stored in original packaging, in dry conditions and handled with care. For more information refer to our website.

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