SelectAlloy 16-8-2-C

Stainless Steel / Gas Shielded / Metal Cored

PRODUCT DATA SHEET

FEATURES

- Alloyed to produce good hot-ductility properties for resistance against weld or crater cracking under restraint conditions despite a typical ferrite number (FN) of the weld deposit of <5FN.
- Metal cored benefits include the ability to successfully bridge gaps when part fit up is not as designed, higher travel speeds with subsequent lower heat inputs at equal amperages, and ability to join thin materials.
- Applications for this alloy type include welding stainless steel grades such as 16-8-2, 316, and 347 in high-pressure, high-temperature piping systems.

CONFORMANCES

AWS A5.22	EC16-8-2
ASME SFA 5.22	EC16-8-2
ASME Section IX	A8

DIAMETERS [in (mm)]

0.035 (0.9), 0.045 (1.2), 1/16 (1.6)

POSITIONS

SHIELDING GAS

Ar + 0.5-5% CO2, Ar + 0.5-3% O2
Flow Rate: 40 - 50 CFM

POLARITY

Direct Current Electrode Positive (DCEP)

TYPICAL WELD DEPOSIT CHEMISTRY [WT%]

Shielding Gas	C	Cr	Cu	Mn	Mo	Ni	P	S	Si
98%Ar / 2%O2	0.05	15.30	0.16	1.39	1.41	8.31	0.019	0.002	0.52

Ferrite	Result
WRC 1992	1 FN

TYPICAL MECHANICAL PROPERTIES

Shielding Gas	Tensile Strength ksi (MPa)	Yield Strength ksi (MPa)	Elongation (%)	Weld Condition	PWHT Temp
98%Ar / 2%O2	94 (648)	59 (407)	45	As-Welded	-

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RECOMMENDED WELDING PARAMETERS

Diameter in (mm)	Shielding Gas	Position	WFS* in/min (m/min)	Amps	Volts	CTWD* in (mm)
0.035 (0.9 mm)	98% Ar/2% O2	Flat & Horizontal	450 (11.4)	170	21	1/2 (13)
		Flat & Horizontal	515 (13.1)	185	23	1/2 (13)
		Flat & Horizontal	560 (14.2)	200	24	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	655 (16.6)	205	26	1/2 - 5/8 (13 - 16)
0.045 (1.2 mm)	98% Ar/2% O2	Flat & Horizontal	325 (8.3)	220	22	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	375 (9.5)	235	23	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	420 (10.7)	250	24	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	500 (12.7)	270	26	5/8 - 3/4 (16 - 19)
1/16 (1.6 mm)	98% Ar/2% O2	Flat & Horizontal	225 (5.7)	265	21	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	300 (7.6)	305	23	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	330 (8.4)	335	24	3/4 - 1 (19 - 25)
		Flat & Horizontal	375 (9.5)	350	26	3/4 - 1 (19 - 25)

** WFS = Wire Feed Speed, CTWD = Contact Tip To Work Distance*

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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