Select 410

Stainless Steel / Gas Shielded / Flux Cored

PRODUCT DATA SHEET

FEATURES

- This alloy is an air-hardening steel that requires preheat and postheat treatments in order to achieve welds of satisfactory ductility for most applications.
- Designed for welding in the flat and horizontal positions where flat, well washed beads can be achieved in both 100% CO2 or 75-80% Ar/balance CO2 shielding gas
- Applications for this alloy are mostly found in welding components of similar compositions or for the surfacing of carbon steels to resist corrosion, erosion, or abrasion, which can occur in valve seats and other valve parts.

CONFORMANCES

AWS A5.22	E410T0-1
	E410T0-4
ASME SFA 5.22	E410T0-1
	E410T0-4

DIAMETERS (in [mm])

0.045 (1.2), 1/16 (1.6), 3/32 (2.4)

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	Mn	Mo	Ni	P	S	Si
100%CO2	0.06	11.30	0.02	0.30	<0.01	0.30	0.012	0.006	0.27
75%Ar / 25%CO2	0.06	11.80	0.02	0.35	<0.01	0.30	0.012	0.006	0.33

Bismuth is not intentionally added and levels are not known to be greater than 0.002 (WT%)

TYPICAL MECHANICAL PROPERTIES

Shielding Gas	Tensile Strength ksi (MPa)	Yield Strength ksi (MPa)	Elongation (%)	Weld Condition	PWHT Temp
100%CO2	92 (634)	72 (497)	22	PWHT	1375°F for 1 hr
75%Ar / 25%CO2	93 (641)	74 (510)	22	PWHT	1375°F for 1 hr

Revision: 1/17/2025

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RECOMMENDED WELDING PARAMETERS **

Diameter in (mm)	Shielding Gas	Position	WFS* in/min (m/min)	Amps	Volts	CTWD* in (mm)
0.045 (1.2 mm)	100% CO2	Flat & Horizontal	250 (6.4)	175	24	1/2 (13)
		Flat & Horizontal	435 (11.0)	235	29	5/8 (16)
		Flat & Horizontal	780 (19.8)	320	37	1 (25)
1/16 (1.6 mm)	100% CO2	Flat & Horizontal	235 (6.0)	245	26	3/4 (19)
		Flat & Horizontal	325 (8.3)	320	29	3/4 (19)
		Flat & Horizontal	385 (9.8)	350	33	1 (25)
3/32 (2.4 mm)	100% CO2	Flat & Horizontal	120 (3.0)	275	23	3/4 (19)
		Flat & Horizontal	180 (4.6)	400	29	1 (25)
		Flat & Horizontal	250 (6.4)	465	34	1 1/2 (38)

** 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.*

For 75-80%Ar-Balance CO2 shielding gas, decrease voltage by 1 to 1.5 volts

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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