

Select 4130C

Low Alloy / Gas Shielded / Metal Cored

PRODUCT DATA SHEET

FEATURES

- Can be used for welding 4130, 4140, 8630, and similar alloy steels that are to be post weld heat treated.
- This electrode was designed to meet the properties of quenched and tempered steels, and therefore should not be used for as-welded applications.
- The recommended shielding gas is 98%Ar / 2%O₂, however, 90%Ar / 10%CO₂ may be used as well.
- Contains less than 1% nickel, making this electrode suitable for most sour service applications.

DIAMETERS (in [mm])

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

POSITIONS



SHIELDING GAS

98% Ar / 2% O₂, 90% Ar / 10%CO₂

Flow Rate: 40 - 50 CFH

POLARITY

Direct Current Electrode Positive (DCEP)

TYPICAL WELD DEPOSIT CHEMISTRY (WT%)

Shielding Gas	C	Cr	Mn	Mo	Ni	P	S	Si
90%Ar / 10%CO ₂	0.21	0.72	1.42	0.21	0.85	0.010	0.012	0.84
98%Ar / 2%O ₂	0.21	0.65	1.32	0.20	0.68	0.006	0.010	0.75

TYPICAL MECHANICAL PROPERTIES

Shielding Gas	Tensile Strength ksi (MPa)	Yield Strength ksi (MPa)	Elongation (%)	Weld Condition	PWHT Temp	CVN @ -20°F (-30°C) ft-lb (J)	CVN @ -40°F (-40°C) ft-lb (J)
90%Ar / 10%CO ₂	100 (690)	81 (557)	25	PWHT	1175°F for 32 hrs	30 (41)	26 (35)
90%Ar / 10%CO ₂	107 (738)	88 (607)	25	PWHT	1175°F for 4 hr	33 (45)	26 (35)



Revision: 1/17/2025

Notice: Be sure to follow all your employers safety practices, policies and procedures when using this product. Refer to CSA W117.2 and ANSI Z49.1 Safety in Welding, Cutting and Allied Processes for further information and the manufactures SDS sheet. 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. An example of such conditions would be electrode size, plate chemistry, environment, weldment design, fabrication methods, welding procedure and service requirements. 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.

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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)	90% Ar/10% CO2	Flat & Horizontal	345 (8.8)	170	24	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	425 (10.8)	190	25	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	475 (12.1)	210	26.5	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	570 (14.5)	225	29	5/8 - 3/4 (16 - 19)
0.045 (1.2 mm)	90% Ar/10% CO2	Flat & Horizontal	260 (6.6)	200	24	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	305 (7.7)	220	25	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	360 (9.1)	240	26.5	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	405 (10.3)	255	28	5/8 - 3/4 (16 - 19)
1/16 (1.6 mm)	90% Ar/10% CO2	Flat & Horizontal	200 (5.1)	250	24	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	245 (6.2)	290	25	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	275 (7.0)	310	26.5	3/4 - 1 (19 - 25)
		Flat & Horizontal	285 (7.2)	330	28	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.

Welding parameters are for 90% Ar/10% CO2, at higher levels of argon the voltage should be gradually decreased: 1-2 volts for 98% Ar/2% O2.

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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