

# Select 100C

Low Alloy / Gas Shielded / Metal Cored

PRODUCT DATA SHEET

## FEATURES

- Intended for single and multiple pass welding of some carbon and certain low alloy steels, in the flat and horizontal positions, where a minimum tensile strength of 100,000 psi is required in the deposited weld metal.
- The arc is normally a pure spray transfer, with virtually no spatter emission.
- This electrode is well suited to joining low alloy, high strength steels, such as HY-80, A710, and A514.
- Suitable for use in shipbuilding, earthmoving equipment, and mining machinery, to name a few applications.
- This electrode is an ideal choice for those weldments where distortion must be minimized, and de-slagging is not desirable.

## CONFORMANCES

AWS A5.28	E100C-G
ASME SFA 5.28	E100C-G

## DIAMETERS (in [mm])

0.035 (0.9), 0.045 (1.2), 0.052 (1.3), 1/16 (1.6)

## POSITIONS



## SHIELDING GAS

95-98% Ar / 2-5% O<sub>2</sub>, 92-95% Ar / 2-8% CO<sub>2</sub>  
Flow Rate: 40 - 50 CFH

## POLARITY

Direct Current Electrode Positive (DCEP)

## TYPICAL WELD DEPOSIT CHEMISTRY [WT%]

Shielding Gas	C	Mn	Mo	Ni	P	S	Si
98%Ar / 2%O <sub>2</sub>	0.04	1.55	0.50	2.07	0.010	0.010	0.32

## 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 @ -60°F (-50°C) ft-lb (J)
98%Ar / 2%O <sub>2</sub>	116 (800)	102 (703)	20	As-Welded	-	35 (47)	29 (39)



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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)	98% Ar/2% O2	Flat & Horizontal	345 (8.8)	170	23	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	425 (10.8)	190	24	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	475 (12.1)	210	25.5	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	570 (14.5)	225	27	5/8 - 3/4 (16 - 19)
0.045 (1.2 mm)	98% Ar/2% O2	Flat & Horizontal	260 (6.6)	200	23	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	305 (7.7)	220	24	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	360 (9.1)	240	25.5	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	405 (10.3)	255	27	5/8 - 3/4 (16 - 19)
0.052 (1.3 mm)	98% Ar/2% O2	Flat & Horizontal	235 (6.0)	215	23	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	315 (8.0)	260	24	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	330 (8.4)	275	25.5	3/4 - 1 (19 - 25)
		Flat & Horizontal	345 (8.8)	295	27	3/4 - 1 (19 - 25)
1/16 (1.6 mm)	98% Ar/2% O2	Flat & Horizontal	200 (5.1)	250	23	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	245 (6.2)	290	24	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	275 (7.0)	310	25.5	3/4 - 1 (19 - 25)
		Flat & Horizontal	285 (7.2)	330	27	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.

## 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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