

Select 81-B2

Low Alloy / Gas Shielded / Flux Cored

PRODUCT DATA SHEET

FEATURES

- Intended for welding of certain Cr-Mo steel and pipe grades, where 1.25% Cr and 0.5% Mo are required in the weld deposit.
- Ideal for welding steels subjected to high temperature service, such as ASTM A387-Gr 11 plate and A335 P11 pipe.
- Typical applications include fabrication of boilers, heat exchangers, and pressure vessels.
- Will harden in still air, thus it is critical that proper preheat and interpass temperatures are used as well as proper post weld heat treatment.

CONFORMANCES

AWS A5.29

E80T1-B2C

DIAMETERS [in (mm)]

3/32 (2.4)

POSITIONS



SHIELDING GAS

100%CO₂

Flow Rate: 40 - 50 CFM

POLARITY

Direct Current Electrode Positive (DCEP)

TYPICAL WELD DEPOSIT CHEMISTRY (WT%)

Shielding Gas	C	Cr	Mn	Mo	P	S	Si
100%CO ₂	0.07	1.13	0.53	0.54	0.008	0.006	0.37

TYPICAL MECHANICAL PROPERTIES

Shielding Gas	Tensile Strength ksi (MPa)	Yield Strength ksi (MPa)	Elongation (%)	Weld Condition	PWHT Temp
100%CO ₂	94 (648)	80 (555)	22	PWHT	1275F for 1 hr

RECOMMENDED WELDING PARAMETERS

Diameter in (mm)	Shielding Gas	Position	WFS* in/min (m/min)	Amps	Volts	CTWD* in (mm)
3/32 (2.4 mm)	100% CO ₂	Flat & Horizontal	120 (3.0)	275	25	1 1/4 (32)
		Flat & Horizontal	150 (3.8)	335	27	1 1/4 - 1 1/2 (32 - 38)
		Flat & Horizontal	165 (4.2)	400	29	1 1/4 - 1 1/2 (32 - 38)

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



Revision: 9/30/2022

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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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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