

Low Alloy / Gas Shielded / Flux Cored

PRODUCT DATA SHEET

### **FEATURES**

- Designed for all position welding in single or multiple pass applications.
- Superb weldability with a smooth arc transfer, fast freezing slag which cleans easily, and displays an excellent flat bead profile.
- Intended for use with both 100% CO2 or 75-80% Ar/balance CO2 shielding gas.
- Used in structural applications where excellent Charpy V-Notch toughness is required (base metals such as ASTM A203, ASTM A352, and ASTM A302).

#### CONFORMANCES

**AWS A5.29** 

E91T1-Ni2C-H8 E91T1-Ni2M-H8

# **DIAMETERS** (in (mm))

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

## **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	С	Mn	Ni	P	S	Si
100%CO2	0.06	1.36	2.50	0.006	0.009	0.49
75%Ar / 25%CO2	0.06	1.44	2.35	0.005	0.008	0.61

### **TYPICAL MECHANICAL PROPERTIES**

Shielding Gas	Tensile Strength ksi (MPa)	Yield Strength ksi (MPa)	Elongation (%)	Weld Condition	PWHT Temp	CVN @ -40°F (-40°C) ft-lb (J)
100%CO2	96 (662)	84 (579)	26	As-Welded	-	51 (69)
75%Ar / 25%CO2	108 (745)	96 (662)	23	As-Welded	-	35 (47)



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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.

#### **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%		All Positions	200 (5.1)	145	24	1/2 - 5/8 (13 - 16)
		All Positions	235 (6.0)	160	25	1/2 - 5/8 (13 - 16)
	100% CO2	All Positions	300 (7.6)	185	27	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	375 (9.5)	215	28	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	440 (11.2)	235	29	5/8 - 3/4 (16 - 19)
0.052 (1.3 mm)		All Positions	170 (4.3)	155	24	5/8 - 3/4 (16 - 19)
		All Positions	200 (5.1)	175	25	5/8 - 3/4 (16 - 19)
	100% CO2	All Positions	250 (6.4)	225	27	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	310 (7.9)	250	28	3/4 - 1 (19 - 25)
		Flat & Horizontal	395 (10.0)	280	29	3/4 - 1 (19 - 25)
1/16 (1.6 mm)		All Positions	125 (3.2)	165	24	5/8 - 3/4 (16 - 19)
		All Positions	150 (3.8)	195	25	5/8 - 3/4 (16 - 19)
	100% CO2	All Positions	185 (4.7)	225	27	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	265 (6.7)	280	28	3/4 - 1 (19 - 25)
		Flat & Horizontal	325 (8.3)	320	29	3/4 - 1 (19 - 25)

For Welding in 75-80% Ar / Balance CO2, decrease by 1 - 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

### 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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<sup>\*</sup> 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 "allposition" 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.

<sup>\*</sup>Some packaging options may not be available depending on diameter and product. Special package options may be available upon request.