

Low Alloy / Gas Shielded / Flux Cored

PRODUCT DATA SHEET

### **FEATURES**

- This electrode is a premium low alloy, flux cored electrode, with moderate to high tensile strength and excellent subzero CVN toughness.
- The slag system is rutile based and facilitates welding in all positions, providing a smooth spray transfer, low spatter, and excellent weld bead geometry.
- Well suited for steels such as HY-80, HY-100, ASTM A710, A514 and other similar high strength steels.
- Typical applications include fabrication of submarines, offshore platforms and leg assemblies, earthmoving machinery, and specialized structural applications.

#### CONFORMANCES

**AWS A5.29** E91T1-K2C-H8

E91T1-K2M-H8

**ASME SFA 5.29** E91T1-K2C-H8

E91T1-K2M-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 CFM

### **POLARITY**

Direct Current Electrode Positive (DCEP)

### **TYPICAL WELD DEPOSIT CHEMISTRY (WT%)**

Shielding Gas	С	Cr	Mn	Мо	Ni	P	S	Si
100%CO2	0.05	0.03	1.32	0.24	1.64	0.010	0.010	0.51
75%Ar / 25%CO2	0.04	0.03	1.40	0.24	1.60	0.010	0.010	0.55

### **TYPICAL MECHANICAL PROPERTIES**

Shielding Gas	Tensile Strength ksi (MPa)	Yield Strength ksi (MPa)	Elongation (%)	Weld Condition	PWHT Temp	CVN @ 0°F (-20°C) ft-lb (J)
100%CO2	99 (683)	89 (614)	25	As-Welded	-	32 (43)
75%Ar / 25%CO2	108 (745)	98 (676)	25	As-Welded	-	33 (45)



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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% CO2	All Positions	200 (5.1)	145	23	1/2 - 5/8 (13 - 16)	
		All Positions	235 (6.0)	160	24	1/2 - 5/8 (13 - 16)	
		All Positions	All Positions 300 (7.6) 18		26	1/2 - 5/8 (13 - 16)	
		Flat & Horizontal 375 (9.5) 215 27		27	5/8 - 3/4 (16 - 19)		
		Flat & Horizontal	440 (11.2)	235	29	5/8 - 3/4 (16 - 19)	
0.052 (1.3 mm)	100% CO2	All Positions	170 (4.3)	155	23	5/8 - 3/4 (16 - 19)	
		All Positions	200 (5.1)	175	24	5/8 - 3/4 (16 - 19)	
		All Positions	250 (6.4)	225	26	5/8 - 3/4 (16 - 19)	
		Flat & Horizontal	310 (7.9)	250	27	3/4 - 1 (19 - 25)	
		Flat & Horizontal	395 (10.0)	280	29	3/4 - 1 (19 - 25)	
		All Positions	125 (3.2)	165	23	5/8 - 3/4 (16 - 19)	
1/16 (1.6 mm)	100% CO2	All Positions	150 (3.8)	195	24	5/8 - 3/4 (16 - 19)	
		All Positions	185 (4.7)	225	26	5/8 - 3/4 (16 - 19)	
		All Positions	265 (6.7)	280	27	3/4 - 1 (19 - 25)	
		All Positions	325 (8.3)	320	29	3/4 - 1 (19 - 25)	

<sup>\*</sup> WFS = Wire Feed Speed, CTWD = Contact Tip To Work Distance

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>Some packaging options may not be available depending on diameter and product. Special package options may be available upon request.