

Carbon Steel / Gas Shielded / Flux Cored

PRODUCT DATA SHEET

FEATURES

- Designed for single and multiple pass welding of carbon steels, such as ASTM A36, A285, and A515-
- Can be used with either 100% CO2 or 75-80% Ar/balance CO2
- Improved arc stability at lower amperage/voltage settings allows for welding on thinner sections
- Intended for welding structural steel and general fabrication, especially on thinner gauges, down to 3/16 inch.
- Typical applications are railcar construction, pipe welding, and offshore platform construction

CONFORMANCES

AWS A5.20	E71T-1C
	E71T-1M
	E71T-9C
	E71T-9M

E71T-1C **ASME SFA 5.20** E71T-1M

E71T-9C

E71T-9M

DIAMETERS (in (mm))

0.035 (0.9), 0.45 (), 0.052 (1.3), 1/16 (1.6)

POSITIONS



SHIELDING GAS

75-80% Ar/Balance CO2, 100% CO2 Flow Rate: 40 - 50 CFM

Direct Current Electrode Positive (DCEP)

POLARITY

TYPICAL WELD DEPOSIT CHEMISTRY (WT%)

Shielding Gas	С	Cr	Cu	Mn	Мо	Ni	P	S	Si	V
100%CO2	0.05	0.06	0.03	1.21	0.00	0.02	0.008	0.010	0.38	0.02
75%Ar / 25%CO2	0.05	0.05	0.03	1.37	0.00	0.02	0.008	0.009	0.42	0.02

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)
100%CO2	83 (572)	75 (517)	28	As-Welded	-	58 (79)
75%Ar / 25%CO2	87 (600)	78 (538)	27	As-Welded	-	59 (80)



Revision: 9/16/2022

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.

RECOMMENDED WELDING PARAMETERS

Diameter in (mm)	Shielding Gas	Position	WFS* in/min (m/min)	Amps	Volts	CTWD* in (mm)
0.035 (0.9 mm)		All Positions	275 (7.0)	120	23	1/2 - 5/8 (13 - 16)
		All Positions	320 (8.1)	135	24	1/2 - 5/8 (13 - 16)
	100% CO2	All Positions	420 (10.7)	160	26	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	465 (11.8)	180	27	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	570 (14.5)	200	29	5/8 - 3/4 (16 - 19)
0.045 (1.2 mm)		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)
	100% CO2	All Positions	300 (7.6)	185	26	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	375 (9.5)	215	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)
1/16 (1.6 mm)	100% CO2	All Positions	125 (3.2)	165	23	5/8 - 3/4 (16 - 19)
		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)

^{*} 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.



Revision: 9/16/2022

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.

^{*}Some packaging options may not be available depending on diameter and product. Special package options may be available upon request.