

PRODUCT DATA SHEET



FEATURES

- Can be used with both 100% CO2 and 75-80% Ar/balance CO2 shielding gases.
- Good welding performance across a range of welding parameters.
- Maintains superior arc stability at lower than normal current settings.

CONFORMANCES

AWS A5.20 E71T-1C-H8

E71T-1M-H8 E71T-9C-H8 E71T-9M-H8

AWS A5.36 E71T1-C1A2-CS1-H8

E71T1-M21A2-CS1-H8

ASME SFA 5.20 E71T-1C-H8

E71T-1M-H8 E71T-9C-H8

E71T-9M-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	Cr	Cu	Mn	Мо	Ni	P	S	Si	V
100%CO2	0.05	0.07	0.02	1.10	0.01	0.01	0.012	0.010	0.63	0.02
75%Ar / 25%CO2	0.05	0.06	0.04	1.30	0.00	0.02	0.012	0.009	0.78	0.02

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)	CVN @ -20°F (-30°C) ft-lb (J)
100%CO2	84 (579)	72 (497)	27	As-Welded	-	87 (118)	68 (92)
75%Ar / 25%CO2	90 (621)	80 (552)	29	As-Welded	-	64 (87)	53 (72)



RECOMMENDED WELDING PARAMETERS **

Diameter in (mm)	Shielding Gas	Position	WFS* in/min (m/min)	Amps	Volts	CTWD* in (mm)
0.045 (1.2 mm)		All Positions	200 (5.1)	145	23	1/2 - 5/8 (13 - 16)
	100% CO2	All Positions	235 (6.0)	160	24	1/2 - 5/8 (13 - 16)
		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)		All Positions	170 (4.3)	155	23	5/8 - 3/4 (16 - 19)
	100% CO2	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)		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)
	100% CO2	All Positions	185 (4.7)	225	26	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	265 (6.7)	280	27	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

APPROVALS

Agency	Approval	Shielding Gas	Diameter(s) in (mm)	
CWB CSA W48-23	E491T1-C1A3-CS1-H8	C1 (100%CO2)	0.045 (1.2) - 1/16 (1.6)	
	E491T1-M21A3-CS1-H8	M21 (75%Ar / 25%CO2)	0.045 (1.2) - 1/16 (1.6)	

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: 1/17/2025

^{*} 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.

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