

Select 7000-SR

Carbon Steel / Gas Shielded / Flux Cored

PRODUCT DATA SHEET

FEATURES

- Designed for use with 75-80% Ar/balance CO₂ shielding gas
- Intended to weld carbon steels of higher end applications, such as ASTM A515-Gr 70, A516-Gr 70, A572, and A633
- Weld deposits will deliver excellent CVN impact values, in the as welded and PWHT'd conditions at temperatures as low as -60°F
- The slag system produces weld deposits with extremely low residual, or tramp, elements, which enhances low temperature and PWHT'd toughness
- The enhanced mechanical properties make this a perfect choice to weld pressure vessels, valves, flanges, and piping systems in the power generation industry

CONFORMANCES

AWS A5.20

E71T-12M-JH4

E71T-1M-H4

E71T-9M-JH4

AWS A5.36

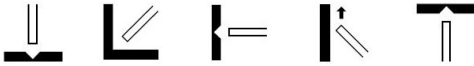
E71T12-M21A6-CS2-H4

E71T12-M21P6-CS2-H4

DIAMETERS (in [mm])

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

POSITIONS



SHIELDING GAS

75-80% Ar/Balance CO₂

Flow Rate: 40 - 50 CFH

POLARITY

Direct Current Electrode Positive (DCEP)

TYPICAL WELD DEPOSIT CHEMISTRY (WT%)

Shielding Gas	C	Cr	Cu	Mn	Mo	Ni	P	S	Si	V
75%Ar / 25%CO ₂	0.06	0.02	0.02	1.40	0.01	0.46	0.009	0.007	0.38	0.005

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)	CVN @ -60°F (-50°C) ft-lb (J)
75%Ar / 25%CO ₂	82 (566)	65 (448)	34	As-Welded	-	91 (123)	82 (111)
75%Ar / 25%CO ₂	74 (510)	59 (407)	29	PWHT	1150°F for 16 hrs	94 (127)	79 (107)
75%Ar / 25%CO ₂	78 (538)	62 (428)	31	PWHT	1150°F for 8 hrs	100 (136)	83 (113)



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)	75% Ar/25% CO2	All Positions	200 (5.1)	145	22	1/2 - 5/8 (13 - 16)
		All Positions	235 (6.0)	160	23	1/2 - 5/8 (13 - 16)
		All Positions	300 (7.6)	185	25	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	375 (9.5)	215	26	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	440 (11.2)	235	28	5/8 - 3/4 (16 - 19)
0.052 (1.3 mm)	75% Ar/25% CO2	All Positions	170 (4.3)	155	22	5/8 - 3/4 (16 - 19)
		All Positions	200 (5.1)	175	23	5/8 - 3/4 (16 - 19)
		All Positions	250 (6.4)	225	25	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	310 (7.9)	250	26	3/4 - 1 (19 - 25)
		Flat & Horizontal	395 (10.0)	280	28	3/4 - 1 (19 - 25)
1/16 (1.6 mm)	75% Ar/25% CO2	All Positions	125 (3.2)	165	22	5/8 - 3/4 (16 - 19)
		All Positions	150 (3.8)	195	23	5/8 - 3/4 (16 - 19)
		All Positions	185 (4.7)	225	25	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	265 (6.7)	280	26	3/4 - 1 (19 - 25)
		Flat & Horizontal	325 (8.3)	320	28	3/4 - 1 (19 - 25)

* 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 "all-position" 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.

APPROVALS

Agency	Approval	Shielding Gas	Diameter(s) in (mm)
ABS	E71T-12MJ-H4	M21 (75%Ar / 25%CO2)	0.045 (1.2) - 1/16 (1.6)
CWB CSA W48-23	E491T1-M21A5-CS2-H4	M21 (75%Ar / 25%CO2)	0.045 (1.2) - 1/16 (1.6)
	E491T1-M21P5-CS2-H4	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

*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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