Select 730

Carbon Steel / Gas Shielded / Flux Cored

PRODUCT DATA SHEET

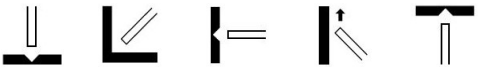
FEATURES

- This product is optimized for superb arc transfer characteristics with 75-80% Ar/Balance CO2 shielding gas, but may also be used with 100% CO2, with the transfer mode being small droplets and resembling molten metal spraying onto the weld puddle.
- All-position weldability, with minimal spatter and excellent bead geometry.
- Mechanical properties are excellent with either gas, CVN impact values are particularly good at temperatures as low as -20°F.
- Well suited for structural steel welding, shipbuilding, barge construction, and general plate fabrication.

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)

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-9M-H8
AWS D1.8	0.045 in (1.2 mm), (100% CO2)
	0.045 in (1.2 mm), (75% Ar/25% CO2)
	0.052 in (1.3 mm), (100% CO2)
	0.052 in (1.3 mm), (75% Ar/25% CO2)
	1/16 in (1.6 mm), (100% CO2)
	1/16 in (1.6 mm), (75% Ar/25% CO2)

TYPICAL WELD DEPOSIT CHEMISTRY [WT%]

Shielding Gas	C	Cr	Cu	Mn	Mo	Ni	P	S	Si	V
100%CO2	0.04	0.04	0.04	1.25	0.00	0.02	0.008	0.010	0.63	0.02
75%Ar / 25%CO2	0.05	0.04	0.04	1.50	0.00	0.02	0.008	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	86 (590)	78 (534)	29	As-Welded	-	108 (146)	89 (121)
75%Ar / 25%CO2	92 (638)	84 (576)	28	As-Welded	-	110 (149)	88 (119)

Revision: 1/17/2025

600 Enterprise Drive, P.O. Box 259, Fort Loramie, Ohio 45845-0259 • 800-341-5215 • www.Select-Arc.com

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	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)
		Flat & Horizontal	265 (6.7)	280	27	3/4 - 1 (19 - 25)
		Flat & Horizontal	325 (8.3)	320	29	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.*

For 75-80% Ar/Balance CO2 shielding, decrease voltage by 1 to 1.5 volts

APPROVALS

Agency	Approval	Shielding Gas	Diameter(s) in (mm)
ABS	3YSA	M21 (75%Ar / 25%CO2)	0.045 (1.2) - 1/16 (1.6)
		C1 (100%CO2)	0.045 (1.2) - 1/16 (1.6)
DNV	III YMS (H10) (C1)	C1 (100%CO2)	0.045 (1.2) - 1/16 (1.6)
	III YMS (H10) (M21)	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.

Revision: 1/17/2025

600 Enterprise Drive, P.O. Box 259, Fort Loramie, Ohio 45845-0259 • 800-341-5215 • www.Select-Arc.com