Select 720

Carbon Steel / Gas Shielded / Flux Cored

PRODUCT DATA SHEET

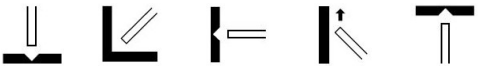
FEATURES

- Designed for ease of welding in all positions.
- Arc transfer is soft; resides on the puddle in a small to medium droplet transfer.
- Mechanical properties exceed the minimum AWS requirements and rival E7018 electrodes.
- Intended for use with 100% CO2 or 75-80% Ar/balance CO2.
- Excels in general fabrication, structural steel, and shipbuilding applications.
- Although a dual gas electrode, it is optimized for use on 75-80% Ar/balance CO2.

DIAMETERS [in (mm)]

0.035 (0.9), 0.045 (1.2), 0.052 (1.3), 1/16 (1.6), 5/64 (2.0)

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-9C-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	0.05	0.04	1.18	0.01	0.01	0.015	0.010	0.50	0.02
75%Ar / 25%CO2	0.04	0.06	0.03	1.46	0.00	0.02	0.016	0.010	0.55	0.01

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 (593)	77 (531)	27	As-Welded	-	80 (108)	69 (94)
75%Ar / 25%CO2	93 (641)	84 (579)	26	As-Welded	-	95 (129)	74 (100)

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RECOMMENDED WELDING PARAMETERS **

Diameter in (mm)	Shielding Gas	Position	WFS* in/min (m/min)	Amps	Volts	CTWD* in (mm)
0.035 (0.9 mm)	100% CO2	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)
		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)	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)
5/64 (2.0 mm)	100% CO2	All Positions	100 (2.5)	195	23	3/4 (19)
		All Positions	110 (2.8)	210	24	3/4 (19)
		All Positions	130 (3.3)	240	26	3/4 (19)
		Flat & Horizontal	200 (5.1)	310	27	1 - 1 1/4 (25 - 32)
		Flat & Horizontal	225 (5.7)	350	29	1 - 1 1/4 (25 - 32)

** 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 gas, decrease voltage by 1 to 1.5 volts

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APPROVALS

Agency	Approval	Shielding Gas	Diameter(s) in (mm)
ABS	3YSA	C1 (100%CO2)	0.035 (0.9) - 1/16 (1.6)
		M21 (75%Ar / 25%CO2)	0.035 (0.9) - 1/16 (1.6)
CWB CSA W48-23	E491T1-C1A3-CS1-H4	C1 (100%CO2)	0.035 (0.9) - 5/64 (2.0)
	E491T1-M21A3-CS1-H4	M21 (75%Ar / 25%CO2)	0.035 (0.9) - 5/64 (2.0)
	E491T1-M20A3-CS1-H4	M20 (85%Ar / 15%CO2)	0.035 (0.9) - 5/64 (2.0)
	E491T1-GA3-CS1-H4	G (Gas Mixture*)	0.035 (0.9) - 5/64 (2.0)
DNV	III YMS	M21 (75%Ar / 25%CO2)	0.035 (0.9) - 1/16 (1.6)
		C1 (100%CO2)	0.035 (0.9) - 1/16 (1.6)
LLOYDS	3YS (H10)	M21 (75%Ar / 25%CO2)	0.035 (0.9) - 1/16 (1.6)
		C1 (100%CO2)	0.035 (0.9) - 1/16 (1.6)

** G - Gas mixtures containing components not listed, or mixtures outside the composition range listed in AWS A5.32 (ISO 14175). Two gas mixtures with the same G - classification may not be interchangeable. For more details see approval website or contact Select-Arc.*

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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