Select 70C-6LS Plus

Carbon Steel / Gas Shielded / Metal Cored

PRODUCT DATA SHEET

FEATURES

- Designed to produce cleaner weld deposits with minimal slag islands as compared to conventional metal cored electrodes, requiring less cleanup when multiple beads are to be deposited.
- Arc transfer is a stable, fine droplet spray.
- Ideal for welding structural steel, thin plate fabrication, general fabrication, and welding of thin walled tanks.
- Intended for welding carbon steels such as ASTM A36, A285, A515-Gr 70, and A516-Gr70.
- "Plus" promotes increased welder performance: higher amperage, increased penetration, and lower spatter.

CONFORMANCES

AWS A5.18 E70C-6M-H4

DIAMETERS [in (mm)]

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

POSITIONS

SHIELDING GAS

75-95% Ar/Balance CO2
Flow Rate: 40 - 50 CFM

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%CO2	0.05	0.04	0.05	1.62	0.002	0.35	0.008	0.010	0.65	0.006

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)
75%Ar / 25%CO2	84 (579)	72 (500)	28	As-Welded	-	31 (42)
90%Ar / 10%CO2	94 (650)	81 (559)	27	As-Welded	-	23 (31)

Revision: 9/28/2022

600 Enterprise Drive, P.O. Box 259, Fort Loramie, Ohio 45845-0259 • 877-869-4009 • www.Select-SAI.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)	75% Ar/25% CO2	Flat & Horizontal	260 (6.6)	200	25	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	305 (7.7)	220	26	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	360 (9.1)	240	27.5	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	405 (10.3)	255	29	5/8 - 3/4 (16 - 19)
0.052 (1.3 mm)	75% Ar/25% CO2	Flat & Horizontal	235 (6.0)	215	25	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	315 (8.0)	260	26	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	330 (8.4)	275	27.5	3/4 - 1 (19 - 25)
		Flat & Horizontal	345 (8.8)	295	29	3/4 - 1 (19 - 25)
1/16 (1.6 mm)	75% Ar/25% CO2	Flat & Horizontal	200 (5.1)	250	25	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	245 (6.2)	290	26	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	275 (7.0)	310	27.5	3/4 - 1 (19 - 25)
		Flat & Horizontal	285 (7.2)	330	29	3/4 - 1 (19 - 25)

** WFS = Wire Feed Speed, CTWD = Contact Tip To Work Distance*

Welding parameters are for 75% Ar /25% CO2, at higher levels of argon the voltage should be gradually decreased: ½-1 volt for 85% Ar/15% CO2, 1-1 ½ volts for 90% Ar/10% CO2, and 1-2 volts for 95% Ar/5% CO2.

APPROVALS

Agency	Approval	Shielding Gas	Diameter(s) in (mm)
ABS	3YSA	M21 (75%Ar / 25%CO2)	0.045 (1.2) - 1/16 (1.6)
CWB CSA W48-23	E491T15-M21A3-CS1-H4	M21 (75%Ar / 25%CO2)	0.045 () - 1/16 (1.6)
	E491T15-M20A3-CS1-H4	M20 (92%Ar / 8%CO2)	0.045 () - 1/16 (1.6)
	E491T15-GA3-CS1-H4	G (Gas Mixture*)	0.045 () - 1/16 (1.6)
		M14 (Arcal 14)	0.045 () - 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-SAI.*

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: 9/28/2022

600 Enterprise Drive, P.O. Box 259, Fort Loramie, Ohio 45845-0259 • 877-869-4009 • www.Select-SAI.com