Select ER70S-3

Carbon Steel / Gas Shielded / Solid

FEATURES

- A carbon steel, solid "MIG wire" electrode with copper coating, for gas shielded arc welding.
- Moderate levels of manganese and silicon compared to 70S-6 electrodes reduces silicate slag on weld deposit which minimizes postweld cleanup.
- Excellent feedability and welding.
- Intended for welding carbon steels, such as ASTM A36, A515, A516, and A572.
- Smaller diameters (1/16" or smaller) can be pulse welded in all positions.
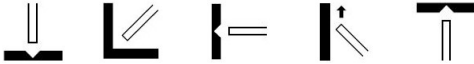
CONFORMANCES

AWS A5.18   ER70S-3

DIAMETERS (in (mm))

0.035 (0.9), 0.045 (1.2)

POSITIONS

SHIELDING GAS

100% CO_2, 75-95% Ar/Balance CO_2, 95-98% Ar/Balance O_2
Flow Rate: 40 - 50 CFM

POLARITY

DCEP

TYPICAL WELD DEPOSIT CHEMISTRY (WT%)

Shielding Gas	C	Cr	Cu	Mn	Mo	Ni	P	S	Si	V
N/A	0.07	0.02	0.17	1.30	<0.01	0.01	0.01	0.02	0.70	<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)
100%CO_2	74 (510)	61 (421)	30	As-Welded	-	66 (89)

RECOMMENDED WELDING PARAMETERS

Diameter in (mm)	Shielding Gas	Position	WFS* in/min (m/min)	Amps	Volts	CTWD* in (mm)
0.035 (0.9 mm)	90% Ar/10% CO2	Flat & Horizontal	380 (9.7)	175	25	3/8 - 5/8 (10 - 16)
		Flat & Horizontal	450 (11.4)	230	27	3/8 - 5/8 (10 - 16)
		Flat & Horizontal	550 (14.0)	250	29	1/2 - 3/4 (13 - 19)
		Flat & Horizontal	625 (15.9)	275	30	1/2 - 3/4 (13 - 19)
0.045 (1.2 mm)	90% Ar/10% CO2	Flat & Horizontal	310 (7.9)	240	26	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	375 (9.5)	275	28	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	450 (11.4)	325	29	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	550 (14.0)	375	30	5/8 - 3/4 (16 - 19)

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

*For higher argon blends such as 98%Ar/2%O2, decrease the voltage by 1 - 3 volts. For higher levels of CO2, increase voltage by 1-3 volts.

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.