Select 810-W

Low Alloy / Gas Shielded / Flux Cored

PRODUCT DATA SHEET

FEATURES

- Superb weldability with a smooth arc transfer and a thin setting slag which removes easily.
- Intended for use with both 100% CO2 or 75-80% Ar/balance CO2 shielding gas.
- Weld metal matches corrosion resistance and coloring of ASTM weathering-type structural steels (i.e. ASTM A242 and A588 types) with ~0.5 wt% copper (Cu) addition.

CONFORMANCES

AWS A5.29 E81T1-W2C-H8

E81T1-W2M-H8

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 CFM

POLARITY

Direct Current Electrode Positive (DCEP)

TYPICAL WELD DEPOSIT CHEMISTRY (WT%)

Shielding Gas	C	Cr	Cu	Mn	Mo	Ni	P	S	Si	V
100%CO2	0.06	0.52	0.39	1.02	0.00	0.63	0.007	0.010	0.51	0.02
75%Ar / 25%CO2	0.06	0.51	0.40	1.11	0.00	0.65	0.006	0.010	0.54	0.02

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)
100%CO2	87 (600)	71 (490)	25	As-Welded	-	31 (42)
75%Ar / 25%CO2	91 (628)	79 (545)	24	As-Welded	-	28 (38)

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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	24	1/2 - 5/8 (13 - 16)
		All Positions	235 (6.0)	160	25	1/2 - 5/8 (13 - 16)
		All Positions	300 (7.6)	185	27	1/2 - 5/8 (13 - 16)
		Flat & Horizontal	375 (9.5)	215	28	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	24	5/8 - 3/4 (16 - 19)
		All Positions	200 (5.1)	175	25	5/8 - 3/4 (16 - 19)
		All Positions	250 (6.4)	225	27	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	310 (7.9)	250	28	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	24	5/8 - 3/4 (16 - 19)
		All Positions	150 (3.8)	195	25	5/8 - 3/4 (16 - 19)
		All Positions	185 (4.7)	225	27	5/8 - 3/4 (16 - 19)
		Flat & Horizontal	265 (6.7)	280	28	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*

For Welding in 75-80% Ar / Balance CO2, decrease by 1 - 1.5 volts.

APPROVALS

Agency	Approval	Shielding Gas	Diameter(s) in (mm)
CWB CSA W48-23	E551T1-C1A3-W2-H8 (E551T1-W2C-H8)	C1 (100%CO2)	0.045 (1.2) - 1/16 (1.6)
	E551T1-M21A3-W2-H8 (E551T1-W2M-H8)	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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