

Select 920-K2

Low Alloy / Gas Shielded / Flux Cored

PRODUCT DATA SHEET

FEATURES

- Produces weld metal with improved low temperature toughness when compared to other electrodes of the same class.
- Exhibits a spray-like arc transfer with very little spatter.
- Slag volume is moderate and removal is quite easy.
- Ideal for applications requiring 90,000 psi minimum tensile strength with good subzero CVN toughness values.
- Used to weld HY-80, HY-100, ASTM 710, A514, and other similar high strength steels.
- Utilized in the fabrication of naval vessels, offshore platforms/leg assemblies, earthmoving machinery, and specialized structural applications.

CONFORMANCES

AWS A5.29

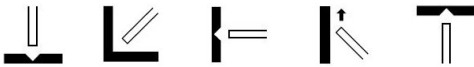
E91T1-K2CJH4

E91T1-K2MJH4

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)

TYPICAL WELD DEPOSIT CHEMISTRY (WT%)

Shielding Gas	C	Cr	Mn	Mo	Ni	P	S	Si	V
100%CO ₂	0.05	0.03	1.5	0.00	1.9	0.010	0.010	0.21	0.02
75%Ar / 25%CO ₂	0.04	0.04	1.6	0.00	1.9	0.010	0.010	0.25	0.02

TYPICAL MECHANICAL PROPERTIES

Shielding Gas	Tensile Strength ksi (MPa)	Yield Strength ksi (MPa)	Elongation (%)	Weld Condition	PWHT Temp	CVN @ -40°F (-40°C) ft-lb (J)	CVN @ -76°F (-60°C) ft-lb (J)
100%CO ₂	94 (645)	87 (600)	22	As-Welded	-	65 (88)	46 (62)
75%Ar / 25%CO ₂	101 (697)	89 (614)	23	As-Welded	-	78 (106)	51 (69)



Revision: 1/17/2025

Notice: Be sure to follow all your employers safety practices, policies and procedures when using this product. Refer to CSA W117.2 and ANSI Z49.1 Safety in Welding, Cutting and Allied Processes for further information and the manufactures SDS sheet. The results reported are based upon testing of the product under controlled laboratory conditions in accordance with American Welding Society Standards. Actual use of the product may produce different results due to varying conditions. An example of such conditions would be electrode size, plate chemistry, environment, weldment design, fabrication methods, welding procedure and service requirements. Thus the results are not guarantees for use in the field. The manufacturer disclaims any warranty of merchantability or fitness for any particular purpose with respect to its products.

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-Position	200 (5.1)	145	24	1/2 - 5/8 (13 - 16)
		All-Position	235 (6.0)	160	25	1/2 - 5/8 (13 - 16)
		All-Position	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-Position	170 (4.3)	155	24	5/8 - 3/4 (16 - 19)
		All-Position	200 (5.1)	175	25	5/8 - 3/4 (16 - 19)
		All-Position	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-Position	125 (3.2)	165	24	5/8 - 3/4 (16 - 19)
		All-Position	150 (3.8)	195	25	5/8 - 3/4 (16 - 19)
		All-Position	185 (4.7)	225	25	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

**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 decrease voltage by 1 to 1.5 volts.

APPROVALS

Agency	Approval	Shielding Gas	Diameter(s) in (mm)
ABS	E91T1-GC	C1 (100%CO2)	0.045 (1.2) - 1/16 (1.6)
CWB CSA W48-23	E621T1-C1A6-K2-H4 (E621T1-K2-H4)	C1 (100%CO2)	0.045 (1.2) - 1/16 (1.6)
	E621T1-M21A6-K2-H4 (E621T1-K2M-JH4)	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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