

Select 920-K2

Description:

- A low alloy steel, flux cored, gas shielded electrode for welding in all positions
- Intended for single and multiple pass welding of several high strength, low alloy steels
- Designed for use with either 100% CO₂ or a blend of 75-80% Ar/balance CO₂
- The arc transfer is a stable, small droplet mode, with minimal spatter
- The slag is a titania-based system with fast freezing capability, making all position applications very welder friendly
- Well suited to welding structural steel and fabrications utilizing high strength, low alloy steels, such as HY-80, ASTM A514, A633, and A710
- Typical applications include mining machinery, large mining trucks, and offshore platform leg assemblies

Classification:

- E91T1-K2CJ, E91T1-K2MJ per AWS A5.29, ASME SFA 5.29
- E91T1-C1A8-K2-H4, E91T1-M21A8-K2-H4 per AWS A5.36, ASME SFA5.36
- ABS E91T1-GC (CO₂)
- CWB E621T1-K2C-JH4 per AWS A5.29M, ASME SFA 5.29M, E91T1-K2C-JH4 per AWS A5.29, ASME SFA 5.29

Typical Mechanical Properties:

	<u>CO₂</u>	<u>75-80% Ar/balance CO₂</u>
Ultimate Tensile Strength (psi)	93,500	101,000
Yield Strength (psi)	87,000	89,000
Percent Elongation	22	23
CVN (ft·lbf) @ -40°F	65	78
CVN (ft·lbf) @ -75°F	46	51

Typical Deposit Composition:

Shielding Gas	<u>C</u>	<u>Mn</u>	<u>Si</u>	<u>P</u>	<u>S</u>	<u>Ni</u>
75-80% Ar/balance CO ₂	.04	1.6	.25	.010	.010	1.9
CO ₂	.05	1.5	.21	.010	.010	1.9

Recommended Welding Parameters*:

Diameter	Position	Optimum			Range	
		Amperage	WFS	Voltage	Amperage	Voltage
1/16"	Flat	350	300	29	150-400	22-34
	Overhead	225	160	26	150-310	22-28
	Vertical up	225	160	25	150-280	22-27
.052"	Flat	300	360	28	100-330	19-32
	Overhead	225	245	26	150-310	21-28
	Vertical up	225	245	25	150-280	21-27
.045"	Flat	250	282	28	100-300	21-32
	Overhead	200	265	26	150-280	21-29
	Vertical up	200	265	25	100-230	21-28

* With CO₂ shielding gas. For 75-80% Ar/balance CO₂ decrease voltage by 1 to 1.5 volts.

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Notice: 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. Select-Arc disclaims any warranty of merchantability or fitness for any particular purpose with respect to its products.