

## Select 920-K2

### Description:

Select 920-K2 is a gas-shielded, flux cored electrode for single and multiple pass welding of certain low alloy steels in all positions. It produces weld metal with improved low temperature toughness when compared to other electrodes of the same class. The shielding gas may be either 100 per cent carbon dioxide or 75-80 percent argon / balance carbon dioxide. Welding grade carbon dioxide must be used, with a minimum dew point of -40°F. Flow rates should be in the range of 35-50 cfm

### Classification:

- E91T1-K2CJ, E91T1-K2MJ per AWS A5.29, SFA 5.29.

### Characteristics:

Select 920-K2 is a flux cored electrode with a rutile based slag system, which exhibits a spray-like arc transfer and very little spatter. Proprietary core ingredients provide a fast freezing slag which facilitates welding in all positions. Slag volume is moderate and removal is quite easy. State-of-the-art manufacturing technology ensures the highest levels of quality, consistency, and welding performance.

### Applications:

Select 920-K2 is an ideal selection for those applications requiring 90,000 psi minimum tensile strength and good subzero CVN toughness values. It is used to weld HY-80, HY-100, ASTM A710, A514, and other similar high strength steels. These steels are used in the fabrication of naval vessels, offshore platforms and leg assemblies, earthmoving machinery, and specialized structural applications.

### Typical Mechanical Properties:

	<u>CO<sub>2</sub></u>	<u>75%Ar/25%CO<sub>2</sub></u>
Ultimate Tensile Strength (psi)	93,500	101,000
Yield Strength (psi)	87,000	89,000
Percent Elongation	22	23
CVN (ft-lb f) @ -40°F	65	78
CVN (ft-lb f) @ -75°F	46	51

### Typical Deposit Composition:

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

### Recommended Welding Parameters\*:

<u>Diameter</u>	<u>Position</u>	<u>Optimum</u>			<u>Range</u>	
		<u>Amperage</u>	<u>WFS</u>	<u>Voltage</u>	<u>Amperage</u>	<u>Voltage</u>
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 CO<sub>2</sub> shielding gas. For 75Ar/25CO<sub>2</sub> 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.