

## Select 910-K2

### Description:

Select 910-K2 is a gas-shielded, flux cored electrode for single and multiple pass welding of certain low alloy steels in all positions. This electrode is optimally used with 100 per cent carbon dioxide shielding; 75-80 percent argon / balance carbon dioxide can be used, but caution should be employed as the tensile strength may exceed the AWS classification limits. 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 cfh.

### Classifications:

- E91T1-K2C, E91T1-K2M per AWS A5.29, SFA 5.29.

### Characteristics:

Select 910-K2 is a premium low alloy, flux cored electrode, with moderate to high tensile strength and excellent subzero CVN toughness. The rutile based slag system facilitates welding in all positions, providing a smooth spray transfer, low spatter, and excellent weld bead geometry. State-of-the-art manufacturing technology ensures the highest levels of quality, consistency, and welding performance.

### Applications:

Select 910-K2 is an ideal selection for those applications requiring 90,000 psi minimum tensile strength and good CVN toughness values. Typically, these involve the steels used in fabrication of submarines, offshore platforms and leg assemblies, earthmoving machinery, and specialized structural applications. These steels are usually types such as HY-80, HY-100, ASTM A710, A514 and other similar high strength steels.

### Typical Mechanical Properties:

	<u>CO<sub>2</sub></u>	<u>75%Ar/25%CO<sub>2</sub></u>
Ultimate Tensile Strength (psi)	103,400	105,000
Yield Strength (psi)	91,700	96,000
Percent Elongation	22	21
CVN (ft-lb f) @ -0°F	32	33

### Typical Deposit Composition:

	<u>Wt%</u>	<u>C</u>	<u>Mn</u>	<u>Si</u>	<u>P</u>	<u>S</u>	<u>Ni</u>	<u>Mo</u>
75Ar/25CO <sub>2</sub>		.04	1.40	.55	.010	.010	1.60	.27
CO <sub>2</sub>		.05	1.32	.51	.010	.010	1.64	.24

### 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.