



## Select 91-K2

**Description:**

**Select 91-K2** is a low alloy steel, gas-shielded, flux cored wire intended for horizontal fillet and flat position welding of certain low alloy steels where a 90 Ksi minimum tensile strength is required. It can be used in both single and multiple pass applications. Carbon dioxide is the recommended shielding gas. Suggested flow rates are 35-50 cfh, with a dew point of at least -40° F.

**Classification:**

- E90T1-K2C per AWS A5.29, ASME SFA 5.29.

**Characteristics:**

**Select 91-K2** is a premium low alloy, flux cored electrode, with moderate to high tensile strength and good low temperature toughness. It utilizes a rutile-based slag system, producing a smooth arc transfer, a thin coverage of easily removed slag, and a smooth, rippled bead profile. State-of-the-art manufacturing technology ensures the highest levels of quality, consistency, and welding performance.

**Applications:**

**Select 91-K2** is an ideal selection for those applications requiring 90,000 psi minimum tensile strength and good CVN toughness values. Typically, these involve the fabrication of offshore platforms and leg assemblies, earthmoving machinery and specialized structural applications. Steel types include HY-80, HY-100, ASTM A710, A514, and other similar high strength, low alloy steels.

**Typical Mechanical Properties:**

	<u>CO<sub>2</sub></u>
Ultimate Tensile Strength (psi)	98,400
Yield Strength (psi)	88,700
Percent Elongation	24
CVN (ft-lb f) @ -0°F	46

**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>	<u>Mo</u>
CO <sub>2</sub>	.05	1.05	.36	.010	.010	1.51	.18

**Recommended Welding Parameters\*:**

<u>Diameter</u>	<u>Optimum</u>			<u>Range</u>	
	<u>Amperage</u>	<u>WFS</u>	<u>Voltage</u>	<u>Amperage</u>	<u>Voltage</u>
1/16"	350	300	29	150-400	22-34
5/64"	390	250	29	280-430	26-33
3/32"	450	210	31	300-550	26-34

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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.