



Select 115-K4

Description:

SELECT 115-K4 is a low alloy steel electrode for flux cored arc welding with external gas-shielding. This electrode is intended for flat and horizontal fillet welding of certain low alloy steels where a minimum tensile strength of 110,000 psi and good low temperature notch toughness are required. 100% carbon dioxide or Ar-25%CO₂ shielding gas may be used. Suggested flow rates are 35-50 cfh with a minimum dew point of -40 degrees F.

Classification:

- E110T5-K4C, E110T5-K4M per ANSI/AWS A5.29, SFA 5.29

Characteristics:

SELECT 115-K4 is a flux cored electrode with a basic slag system, which provides better mechanical properties and diffusible hydrogen levels in the weld deposit than T-1 (rutile) slag systems. The arc transfer is globular in nature, producing more spatter than the T-1 slag systems. However, the welding performance of **SELECT 115-K4** is much improved over the usual T-5 types; in fact, the slag removal and bead geometry are quite similar to those of E10018 electrodes. The viscosity of these lime-fluoride slags limits welding of this electrode to the flat and horizontal positions.

Applications:

SELECT 115-K4 produces a tough, high strength, weld metal that is resistant to cracking in highly restrained joints. These characteristics make it an ideal selection to weld high strength, low alloy steels such as T-1, HY-100, ASTM A514 and others of similar strength.

Typical Mechanical Properties (As Welded):

	CO ₂	Ar-25%CO ₂
Ultimate Tensile Strength (psi)	119,000	123,000
Yield Strength (psi)	107,000	112,000
Percent Elongation	19	18
CVN (ft•lb f) @ -60° F	32	28

Typical Deposit Chemistry (CO₂):

Wt. %	C	Mn	Si	P	S	Ni	Mo	Cr
	.08	1.98	.53	.010	.010	2.20	.41	.39

Suggested Welding Parameters*:

Diameter	Optimum			Range	
	Amperage	Voltage	WFS	Amperage	Voltage
1/8"	475	28	115	375-650	26-36
3/32"	400	28	185	350-550	26-34
5/64"	370	28	250	280-500	26-33
1/16"	300	29	320	250-450	26-34
.045"	250	28	380	120-320	22-31

*Parameters are for CO₂, reduce by 1 volt for Ar-25% CO₂

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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. The manufacturer disclaims any warranty of merchantability or fitness for any particular purpose with respect to its products.