

Select 110-K3

Description:

Select 110-K3 is a low alloy steel, gas-shielded, flux cored electrode intended for single and multiple pass welding of certain high strength steels in horizontal fillets and the flat position. Arc transfer is a smooth spray and the weld bead exhibits clean slag removal with a finely rippled surface.

Classification:

- E110T1-K3C per AWS A5.29, ASME SFA 5.29

Characteristics:

- Spray transfer with low spatter.
- Excellent mechanical properties.
- Weld composition matches that of E11018-M covered electrodes.

Applications:

Select 110-K3 is an excellent product to weld high strength steels such as HY-100 and ASTM A514. The weld deposit produces a minimum tensile strength of 110 Ksi with good subzero CVN toughness. These steels are found in earthmoving equipment buckets, offshore construction and cranes.

Typical Mechanical Properties:

	<u>As Welded</u>
Ultimate Tensile Strength (psi)	116,000
Yield Strength (psi)	105,000
Percent Elongation	19
CVN (ft•lb f) @ 0° F	38

Typical Deposit Composition:

<u>Wt%</u>	<u>C</u>	<u>Mn</u>	<u>Si</u>	<u>P</u>	<u>Ni</u>	<u>Mo</u>	<u>S</u>
	.06	1.74	.33	.010	1.91	.48	.010

Recommended Welding Parameters:

<u>Diam.</u>	<u>Amperage</u>	<u>Optimum</u>		<u>Range</u>		<u>WFS(in/min)</u>	<u>ESQ</u>
		<u>Voltage</u>	<u>WFS</u>	<u>Amperage</u>	<u>Voltage</u>		
3/32"	450	31	210	275-550	26/34	120-270	1"
5/64"	390	29	250	280-430	26/33	140-300	1"
1/16"	350	29	360	250-400	26/32	220-410	1"
.052	275	28	400	150-375	20/32	140-550	½"-1"
.045"	250	28	450	130-300	21/32	175-570	¾"

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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.