



Select 100-K3

Description:

Select 100-K3 is a gas-shielded, low alloy steel electrode for flux cored arc welding of certain high strength low alloy steels. This electrode is intended for single and multiple pass welding in horizontal fillets and the flat position. **Select 100-K3** should be used only with carbon dioxide gas-shielding. The recommended flow rate is 35-50 cfh, and the minimum dew point must be -40°F.

Classification:

- E100T1-K3C per AWS A5.29, SFA 5.29

Characteristics:

Select 100-K3 is a low alloy steel, gas-shielded, flux cored electrode with a rutile based slag, providing a smooth spray transfer, full slag coverage, and relatively low spatter levels. Special formulation ingredients promote low diffusible hydrogen levels in the weld deposit, as well as good CVN toughness at lower temperatures. This electrode exhibits good bead profiles, with excellent slag detachment.

Applications:

Select 100-K3, with a minimum tensile strength of 100 ksi and good CVN toughness levels, is an ideal selection for welding steels such as A514 and HY-80. These steels are typically used in fabrications such as heavy crane assemblies, mining machinery and large earthmoving equipment.

Typical Mechanical Properties:

Ultimate Tensile Strength (psi)	105,700
Yield Strength (psi)	94,000
Percent Elongation	23
CVN (ft•lb f) @ 0°F	40

Typical Deposit Composition:

Wt%	C	Mn	Si	P	S	Ni	Mo
	.05	1.20	.30	.010	.010	1.75	.35

Recommended Welding Parameters:

Diam.	Optimum			Range			
	Amperage	Voltage	WFS	Amperage	Voltage	WFS(in/min)	ESO
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"

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.

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