Smoothcor 100T1-K3

Classification:

E100T1-K3 per AWS A5.29, SFA 5.29

Description:

Smoothcor 100T1-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. **Smoothcor 100T1-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.

Characteristics:

Smoothcor 100T1-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:

Smoothcor 100T1-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 earth moving equipment.

Typical Mechanical Properties:

Ultimate Tensile Strength (psi)	105,700
Yield Strength (psi)	94,000
Percent Elongation	23.0
CVN (ft•lb *f*) @ 0°F	40

Typical Deposit Composition:

Wt%	C	Mn	Si	P	S	Ni	Mo
	.05	1.20	.30	.012	.012	1.80	0.35

Recommended Welding Parameters:

	Operating Range				Optimum		
Diam.	**Amps(DCEP)**	**Volts**	**WFS(in/min)**	**ESO**	**Amps**	**Volts**	**WFS**
3/32"	275-550	26/34	120-270	1”	450	31	210
1/16”	250-400	26/32	220-410	1”	350	29	360
.045	200-350	21-30	200-350	¾”	275	26	282