

Select 70C-3

Description:

Select 70C-3 is a premium metal cored electrode intended for single and multiple pass welding of carbon and certain low alloy steels, where a minimum tensile strength of 70,000 psi is required in the deposited weld metal.

Classification:

- E70C-3M per AWS A5.18, ASME SFA 5.18

Characteristics:

- Increased productivity due to faster welding speeds.
- Very smooth spray transfer with virtually no spatter emission.
- Better fusion than solid wire.
- Elimination of cold lap.
- Slag-free welds enhance productivity.
- Smaller diameter electrodes can be used for all position welding by utilizing short circuit (short arc) or pulse arc transfer.

Applications:

The versatility of Select 70C-3 makes it an ideal choice for those applications where solid wire is inadequate or the slag from flux cored wire is unwanted. Typical areas of appeal are propane and air compressor tanks, farm machinery frames and assemblies, heavy gauge sheet metal and general steel fabrication. The absence of slag and spatter residue facilitates painting after the welding operation is completed.

Typical Mechanical Properties:

	75% Ar/ 25% CO ₂	95% Ar/ 5% CO ₂
Ultimate Tensile Strength (psi)	81,000	86,400
Yield Strength (psi)	73,000	75,900
Percent Elongation	25	24
CVN (ft • lb f) @ 0° F	57	53

Typical Chemical Composition:

Shielding Gas	C	Mn	Si	P	S
75Ar/25CO ₂	.05	1.32	.54	.010	.010
95Ar/5CO ₂	.05	1.51	.63	.010	.010

Typical Welding Parameters: Metal Cored – Argon/Carbon Dioxide

Diam.(in.)	Optimum			Range			ESO
	Amperage	WFS	Voltage	Amperage	WFS	Voltage	
.035"	200	550	29-30	160-250	350-750	24-35	½"-¾"
.045	255	410	29-30	180-330	240-600	27-33	½"-1"
.052	300	350	29-30	220-460	220-620	25-35	½"-1"
1/16	360	300	29-30	240-520	175-500	26-37	¾"-1¼"
5/64"	420	240	29-30	240-550	165-350	27-36	¾"-1¼"
3/32"	450	155	29-30	350-550	125-250	28-36	1-1¼"

Typical Short Arc Parameters (for out of position welding):

	Amperage	WFS	Voltage
.035	100	145	15-16
.045	140	150	16-17
.052	125	120	17-18

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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.