

Select 70C-6LS

Description:

Select 70C-6LS is a carbon steel, gas-shielded, composite metal cored electrode which produces substantially fewer slag islands than typical metal cored wires. Intended for single and multiple pass welding of carbon and certain low alloy steels, Select 70C-6LS is utilized where a minimum tensile strength of 70,000 psi is required.

Classification & Approvals:

- E70C-6M per AWS A5.18, ASME SFA 5.18
- ABS 3SA, 3YSA
- CWB E491C-6, 6M-H4 (CO₂/C5)

Characteristics:

- Outstanding weld bead appearance with excellent tie-in.
- Smooth spray arc transfer with virtually no spatter.
- Minimizes "slag islands", reducing cleanup time
- Better sidewall fusion.
- Greater tolerance of mill scale and rust.
- Smaller diameter electrodes can be used for all position welding by utilizing short circuit (short arc) or pulse arc transfer.

Applications:

Select 70C-6LS is well suited to applications where better bead appearance and less postweld cleanup are desired. The absence of slag and spatter facilitates painting after welding. It can be used to weld sheet metal and thin plate and pipe. Typical applications would be thin walled tanks, certain structural steel and earthmoving equipment.

Typical Mechanical Properties:

	75% Ar/ 25% CO ₂
Ultimate Tensile Strength (psi)	81,500
Yield Strength (psi)	64,500
Percent Elongation	27
CVN (ft • lb f) @ -20° F	32

Typical Chemical Composition:

Wt%	C	Mn	P	S	Si
75Ar/25CO ₂	.05	1.54	.007	.010	.60

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	25-33	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"-1 ¼"

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

* Welding parameters are for 75% Ar/25% CO₂. At higher levels of argon the voltage should be gradually decreased; ½-1 volt for 85% Ar/15% CO₂, 1-1½ volts for 90% Ar/10% CO₂ and 1-2 volts for 95% Ar/5% 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.