



## Select 70C-8

### Description:

**SELECT 70C-8** is a carbon steel, composite metal cored electrode for gas- shielded arc welding. This product is intended for single and limited multiple pass welding of carbon steels, in horizontal fillet and flat position applications. It has special deoxidation that makes it very effective when welding over rust, mill scale, oils or other contaminants. Recommended shielding gases are mixtures of 75-92% argon, balance carbon dioxide. Flow rates must be in the range of 40-55 cfh, and dew points should be a minimum of -40° F.

### Classification:

- E70C-6M per AWS A5.18, ASME SFA 5.18

### Characteristics:

**SELECT 70C-8** has the ability to weld over heavy rust, millscale, paint and other contaminants. It is primarily a single pass electrode if used on clean surfaces, due to the high deoxidizer level. Limited multiple pass welds can be made. As with all metal cored wires, there are several advantages over welding with solid electrodes; increased travel speeds, better fusion into base material and sidewalls, and the virtual elimination of subsurface porosity.

### Applications:

**SELECT 70C-8** is ideal for those difficult-to-weld items such as heavily rusted and scaled surfaces or when the steel is coated with oil or paint. Strength levels and CVN toughness make it well suited for welding ordinary and fine grained steels such as ASTM A36, A285, A516, Grade 70 and A515 Grade 70.

### Typical Mechanical Properties (Argon -25% CO<sub>2</sub>):

Ultimate Tensile Strength, psi	90,000
Yield Strength, psi	79,000
Percent Elongation	26
CVN, ft lb f @-20°F	40

### Typical Deposit Composition (Argon -25% CO<sub>2</sub>):

Wt. %	C	Mn	P	S	Si
	.05	1.68	.010	.010	.74

### Typical Welding Parameters\*:

Diam.(in.)	Optimum			Range			ESO
	Amperage	WFS	Voltage	Amperage	WFS	Voltage	
.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"
7/64	475	135	29-30	400-600	110-200	27-34	1-1¼"
1/8	500	100	28-29	450-625	95-145	26-32	1-1¼"

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

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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 for any particular purpose with respect to its products.