

## Select 717

### Description:

Select 717 is an all-position flux cored, gas shielded electrode designed to produce extremely smooth arc and virtually no spatter with high argon gas mixtures. This electrode is developed primarily for use with 90Ar/10CO<sub>2</sub> shielding gas, making it the superb complimentary all-position electrode for fabrication shops using large quantities of metal cored electrode. The wire is also designed to produce less slag volume and up to 50% less fume than conventional 71T-1 electrodes. Select 717 is ideal for structural fabrication, railcars and general plate fabrication.

### Classifications & Approvals:

- E71T-1M and E71T-9M per AWS A5.20
- E71T1-M21A2-CS2 per AWS A5.36

### Advantages:

- Low fume generation rates and virtually no spatter emission
- Excellent bead geometry and all-position weldability using high argon gas mixtures
- Produces very high deposition rates in out-of-position welding

### Typical Mechanical Properties:

	<u>75Ar/25CO<sub>2</sub></u>	<u>95Ar/5CO<sub>2</sub></u>
Ultimate Tensile Strength (psi)	82,500	88,100
Yield Strength (psi)	69,700	76,000
Percentage Elongation	27	26
CVN (ft • lb) @ 0° F	76	97
@ -20° F	55	89

### Typical Weld Deposit Composition (wt%):

<u>Shielding Gas</u>	<u>C</u>	<u>Mn</u>	<u>P</u>	<u>S</u>	<u>Si</u>
75Ar/25CO <sub>2</sub>	.04	.96	.010	.010	.45
95Ar/5CO <sub>2</sub>	.04	1.12	.007	.010	.59

### Recommended Welding Parameters (90Ar/10CO<sub>2</sub>\*):

Diam.	Position	Optimum				Operating Range		
		WFS (ipm)	Amps	Volts	ESO (in.)	WFS (ipm)	Amps	Volts
.035"	Flat	600	200	25	$\frac{3}{8}$ - $\frac{3}{4}$ "	250-750	120-250	20-27
	Vertical Up	490	175	23		230-580	110-210	19-25
	Overhead	450	170	24		250-580	120-210	20-26
.045"	Flat	500	275	28	$\frac{3}{8}$ - $\frac{3}{4}$ "	140-600	120-320	23-29
	Vertical Up	400	250	26		140-540	120-300	23-27
	Overhead	400	250	27		150-540	125-300	24-28
.052"	Flat	480	340	28	$\frac{1}{2}$ -1"	120-550	140-390	24-29
	Vertical Up	300	260	27		120-450	140-310	24-28
	Overhead	300	260	27		120-450	140-310	24-28
1/16"	Flat	350	340	27	$\frac{1}{2}$ -1"	90-460	135-400	22-31
	Vertical Up	250	280	25		100-350	145-360	23-28
	Overhead	250	280	26		100-350	145-360	23-29

\*For shielding gas with higher amounts of CO<sub>2</sub>, voltage may need to be increased

Rev 0 (12/17/13)

**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.