



Encore

Description:

Encore is an all-position flux cored, gas shielded electrode designed for single and multi-pass welding applications in all positions. This electrode is developed specifically for enhanced welder appeal and exceptional weldability. It is ideal for use on general fabrication, structural steel, construction equipment, railcar fabrication and shipbuilding. Argon with 20-25% CO₂ or 100%CO₂ may be used as a shielding gas, with a flow rates of 40-50 CFH.

Classifications & Approvals:

- E71T-1C, E71T-1M, E71T-9C, E71T-9M, E71T-12C and E71T-12M per AWS A5.20
- E71T1-M21A2-CS2 and E71T1-C1A2-CS2 per AWS A5.36

Advantages:

- Produces superior fillet weld bead geometry with straight toelines
- Possesses exceptional welder appeal and all-position weldability
- Fast freezing slag removes cleanly and easily, leaving a shiny weld surface

Typical Mechanical Properties:

	<u>75Ar/25CO₂</u>	<u>100CO₂</u>
Ultimate Tensile Strength (psi)	82,000	75,000
Yield Strength (psi)	70,000	65,000
Percentage Elongation	32	31
CVN (ft • lb) @ -20° F	45	50

Typical Weld Deposit Composition (wt%):

<u>Shielding Gas</u>	<u>C</u>	<u>Mn</u>	<u>P</u>	<u>S</u>	<u>Si</u>
<u>75Ar/25CO₂</u>	.05	1.20	.010	.010	.35
<u>100CO₂</u>	.05	1.45	.010	.010	.45

Recommended Welding Parameters (75Ar/25CO₂*):

<u>Diameter</u>	<u>Position</u>	<u>Optimum</u>			<u>Range</u>		<u>CTWD</u>
		<u>Amperage</u>	<u>WFS</u>	<u>Voltage</u>	<u>Amperage</u>	<u>Voltage</u>	
1/16"	Flat	315	260	27	185-360	22-29	1-1 ¼"
	Overhead	210	165	24	170-240	22-27	
	Vertical up	210	165	23	170-240	22-26	
.052"	Flat	275	375	28	150-330	23-31	¾"-1"
	Overhead	195	230	26	150-250	22-30	
	Vertical up	195	230	25	150-250	22-29	
.045"	Flat	235	385	27	130-260	24-31	¾"-1"
	Overhead	190	265	26	130-220	23-28	
	Vertical up	190	265	25	130-220	23-27	

*For 100CO₂ shielding gas, raise the voltage by 1 to 1.5 volts.

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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.