

Encore

Description:

- A carbon steel, flux cored, gas shielded electrode for all position welding
- Oxide-free wire surface promotes clean, shiny weld beads and good feeding characteristics
- Intended for welding single and multiple pass fillets and grooves in all positions
- Can be used with both 100% CO₂ and 75-80% Ar/balance CO₂ shielding gases
- Arc transfer is a small droplet spray transfer in both shielding modes
- Ideal for welding carbon steels in structural steel and general fabrication applications
- Typical applications are shipbuilding, railcar fabrication, and earthmoving machinery

Classifications & Approvals:

- E71T-1C, E71T-1M, E71T-9C, E71T-9M, E71T-12C and E71T-12M per AWS A5.20, ASME SFA5.20
- E71T1-M21A2-CS2 and E71T1-C1A2-CS2 per AWS A5.36, ASME SFA5.36
- CWB E491T-9C-H8 (E491T1-C1A3-CS1-H8 per AWS A5.36M), E491T-9M-H16 (E491T1-M21A3-CS1-H16 per AWS A5.36M)

Typical Mechanical Properties:

	<u>75-80% Ar/balance CO₂</u>	<u>100% CO₂</u>
Ultimate Tensile Strength (psi)	82,000	75,000
Yield Strength (psi)	70,000	65,000
Percent Elongation	32	31
CVN (ft-lbf) @ 0° F		
CVN (ft-lbf) @ -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>75-80% Ar/balance CO₂</u>	.05	1.45	.010	.010	.45
<u>100% CO₂</u>	.05	1.20	.010	.010	.35

Recommended Welding Parameters (75-80% Ar/balance CO₂*):

<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	300	260	27	170-350	22-29	1-1¼"
	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	1-1¼"
	Overhead	195	230	26	150-250	22-30	
	Vertical up	195	230	25	150-250	22-29	
.045"	Flat	235	475	27	120-260	24-31	¾"-1"
	Overhead	190	265	26	130-220	23-28	
	Vertical up	190	265	25	130-220	23-27	

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

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.