

Select 7000-SR

Description :

- A carbon steel, gas shielded, flux cored electrode for welding carbon steels in all positions
- Designed for use with 75-80% Ar/balance CO₂ shielding gas
- Intended to weld carbon steels of higher end applications, such as ASTM A515-Gr 70, A516-Gr 70, A572, and A633
- Weld deposits will deliver excellent CVN impact values, in the as welded and PWHT'd conditions at temperatures as low as -60°F
- The slag system produces weld deposits with extremely low residual, or tramp, elements, which enhances low temperature and PWHT'd toughness
- The enhanced mechanical properties make this a perfect choice to weld pressure vessels, valves, flanges, and piping systems in the power generation industry

Classifications:

- E71T-1MJ-H4 , E71T-9MJ-H4 and E71T-12MJ-H4 per AWS A5.20, ASME SFA 5.20
- E71T1-M21A6-CS2 and E71T1-M21P6-CS2 per AWS A5.36, ASME SFA 5.36
- Certified by CWB to CSA W48-06 classification E491T-12MJ-H4

Typical Mechanical Properties:

	<u>As Welded</u>	<u>SR (1150F for 8 hrs)</u>	<u>SR (1150F for 16 hrs)</u>
Ultimate Tensile Strength (psi)	82,000	78,000	74,000
Yield Strength (psi)	65,000	62,000	59,000
Percentage Elongation	34	31	29
CVN (ft•lbf) @ -40° F	91	94	100
@ -60° F	82	79	83
Max. Hardness (per NACE MR0175)	219HV10	200 HV10	-
Brinell Hardness (10mm, 3000kgf)	183 BHN	179 BHN	-

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>Ni</u>
75Ar/25CO ₂	0.06	1.40	0.009	0.007	0.38	0.46

Recommended Welding Parameters:

<u>Diameter</u>	<u>Position</u>	<u>Optimum</u>			<u>Range</u>	
		<u>Amperage</u>	<u>WFS</u>	<u>Voltage</u>	<u>Amperage</u>	<u>Voltage</u>
1/16"	Flat	350	350	28	150-400	22-33
	Overhead	225	180	25	150-310	22-28
	Vertical up	225	180	24	150-280	22-27
.052"	Flat	300	440	27	100-330	19-31
	Overhead	200	245	25	150-310	21-28
	Vertical up	200	245	24	150-280	21-27
.045"	Flat	250	450	27	100-300	21-31
	Overhead	190	305	25	150-280	21-29
	Vertical up	190	305	24	100-230	21-28

Rev 2 (03/12/2019)

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.