

Select 8000-SR

Description:

Select 8000-SR is a premium all-position flux cored, gas shielded electrode designed for welding high strength, low-alloy steels that require exceptional low temperature toughness in the as-welded or stress relieved conditions. This electrode is specifically developed to maintain tensile strength and high toughness at low temperature after long term or repeated post weld heat treatment cycles. It is ideal for pressure vessels, storage tanks, flanges and valves, piping and repair applications. Argon with 20-25% CO₂ is the only recommended shielding gas.

Classifications:

- E81T1-Ni1MJ-H4 per AWS A5.29
- E81T1-M21A6-Ni1-H4 and E81T1-M21P6-Ni1-H4 per AWS A5.36

Advantages:

- Maintains excellent mechanical properties after extended stress relief up to 8 hours
- Possesses excellent notch toughness at -60°F before and after post weld heat treatment
- Maintains low hardness in the as-welded and PWHT condition
- Fast freezing slag facilitates excellent all-position weldability
- Very low diffusible hydrogen levels of less than 4.0mL/100g

Typical Mechanical Properties (75Ar/25CO₂)

	<u>AW</u>	<u>SR (1150F for 8 hrs)</u>
Ultimate Tensile Strength (psi)	92,800	86,400
Yield Strength (psi)	84,200	75,000
Percent Elongation	23	27
CVN (ft•lbf)		
@ -40° F	104	93
@ -60° F	80	69
@ -76° F	72	73

Typical 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>	<u>Mo</u>
75Ar/25CO ₂	0.06	1.38	0.009	0.007	0.23	0.90	0.17

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 3 (9/9/15)

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. Select-Arc disclaims any warranty of merchantability or fitness for any particular purpose with respect to its products.