

Select 7000-SRC

Description:

Select 7000-SRC is a premium all-position flux cored, gas shielded electrode designed to produce excellent mechanical properties in the as-welded and 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. It is ideal for pressure vessels, flanges and valves, piping and repair applications. 100% CO₂ with a flow rate of 40-50 CFH is the only recommended shielding gas.

Classifications:

- E71T-1C-H4 , E71T-9C-H4 and E71T-12CJ-H4 per AWS A5.20
- E71T1-C1A6-CS2-H4 and E71T1-C1P6-CS2-H4 per AWS A5.36

Advantages:

- Maintains excellent mechanical properties after extended stress relief up to 16 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
- Deep penetrating arc that reduces the potential for lack of fusion
- Very low diffusible hydrogen levels of less than 4.0mL/100g

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)	86,300	79,000	73,000
Yield Strength (psi)	71,600	64,500	57,400
Percentage Elongation	30	33	34
CVN (ft • lb) @ -40° F	84	65	71
@ -60° F	72	35	36
Max. Hardness (per NACE MR0175)	201 HV10	200 HV10	169 HV10
Brinell Hardness (10mm, 3000kgf)	186 HBW	167 HBW	161 HBW

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>
100CO ₂	0.05	1.39	0.014	0.008	0.35	0.44

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	29	150-400	22-33
	Overhead	225	180	26	150-310	22-28
	Vertical up	225	180	25	150-280	22-27
.052"	Flat	300	440	28	100-330	19-31
	Overhead	200	245	26	150-310	21-28
	Vertical up	200	245	25	150-280	21-27
.045"	Flat	250	450	28	100-300	21-31
	Overhead	190	305	26	150-280	21-29
	Vertical up	190	305	25	100-230	21-28

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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.