Select 7000-SR

Description:

Select 7000-SR 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. Argon with 20-25% CO_2 is the only recommended shielding gas.

Classifications:

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

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:

	As Welded	SR (1150F for 8 hrs)	SR (1150F for 16 hrs)
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 • lb) @ -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%):

Shielding Gas	C	Mn	P	S	Si	Ni
75Ar/25CO_2	**0.06**	**1.40**	**0 .009**	**0 .007**	**0.38**	**0.46**

Recommended Welding Parameters:

		Optimum			Range	
Diameter	Position	Amperage	WFS	Voltage	Amperage	Voltage
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

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