

Select 101 SR

Description:

Select 101 SR is a low alloy steel, all position, flux cored electrode designed for use with external gas shielding. It is intended for single and multiple pass welding of quenched and tempered steels that require a postweld stress relief. It also produces excellent high strength properties in the as-welded condition. The preferred shielding gas for **Select 101 SR** is 75-80% argon – balance carbon dioxide; the use of 100 percent carbon dioxide should be avoided. Recommended gas flow rates are 35-50 cfh, and welding grade argon - carbon dioxide should be used with a dew point of at least -40° F.

Classification:

- E101T1-GM per AWS/ANSI A5.29, SFA 5.29.

Characteristics:

Select 101 SR is a premium low alloy steel, flux cored electrode, with a rutile based slag system. This product operates in a spray-like transfer, with low spatter and good welder appeal. The fast freezing slag facilitates welding in all positions. There is moderate slag volume, with complete coverage, and easy removal.

Applications:

Select 101 SR is designed to weld oil field components that require a postweld stress relief*. It is an excellent choice for welding quenched and tempered steels such as 4130, 8630, T-1, and similar types. Weld metal nickel contents of less than 1.0% meet NACE requirements. **Select 101 SR** may also be used to weld high strength, low alloy steels where 100 ksi minimum tensile strength and excellent toughness are required in the as welded condition

* **Select 101 SR** is designed for use where the weldment is to be postweld stress relieved. It is not designed for postweld quench and temper treatments. **Select 4130LN** should be used if the weldment is to receive a postweld quench and temper.

Typical Mechanical Properties (75% Argon-25% CO₂):

	As-welded	SR-1150F, 1 Hr.	SR-1175F, 8 Hrs
Ultimate Tensile Strength (psi)	111,100	103,000	106,400
Yield Strength (psi)	98,700	94,000	99,100
Percent Elongation	19	22	22
CVN (ft-lb f) @ -20° F	65	36	
@ -25° F			22
@ -50° F	47		

Typical Weld Deposit Chemistry:

Shielding Gas	C	Mn	P	S	Si	Ni	Mo
75Ar/25CO ₂	.06	1.40	.010	.007	.30	.85	.35

Typical Welding Parameters:

Diameter	Position	Optimum			Range	
		Amperage	WFS	Voltage	Amperage	Voltage
1/16"	Flat	350	300	28	150-400	21-33
	Overhead	225	160	25	150-310	22-27
	Vertical up	225	160	24	150-280	22-26
.052"	Flat	300	360	27	100-330	19-31
	Overhead	225	245	25	150-310	21-27
	Vertical up	225	245	24	150-280	21-26
.045"	Flat	250	282	27	100-300	20-31
	Overhead	200	265	25	150-280	21-28
	Vertical up	200	265	24	100-230	21-27

Rev 0 (03/04/2014)

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 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.