

Select 78

Description:

Select 78 is a self-shielded, carbon steel, flux cored electrode. It is intended for the welding without a shielding gas of carbon and certain low alloy steels where excellent low temperature toughness is required. A fast freezing slag facilitates welding in all positions. It has a smooth globular transfer, excellent bead shape and easily removed slag. **Select 78** is designed for structural applications such as bridge fabrication, ship and barge construction, as well as other general fabrication.

Classification & Approvals:

- E71T-8-H8 per AWS A5.20, ASME SFA 5.20
- E71T8-A2-CS3-H8 per AWS A5.36, ASME SFA 5.36
- AWS D1.8 Seismic, CWB E491T-8-H8, ABS 3YSA, DNV IIIYMS

Advantages:

- Operates on straight polarity (DCEN) with no external shielding gas.
- Fast freezing slag facilitates excellent weldability in all positions.
- Exhibits a smooth globular transfer, minimal spatter and easily removed slag.

Typical Mechanical Properties:

Ultimate Tensile Strength (psi)	87,000
Yield Strength (psi)	64,000
Percent Elongation	27
CVN (ft•lb f) @ +70° F	77
@ -20° F	38

Typical Deposit Composition (wt%):

<u>C</u>	<u>Mn</u>	<u>Si</u>	<u>P</u>	<u>S</u>	<u>Al</u>
0.21	0.72	0.20	0.010	0.005	0.55

Recommended Welding Parameters (DCEN):

Diameter	WFS	Amperage	Voltage	CTWD (in.)
1/16"	120	165	17-18	5/8
	170	200	18-19	3/4
	220	235	20-21	1
	270	270	21-22	1
	350	310	23-24	1
.072"	125	185	18-19	3/4
	175	220	20-21	1
	200	245	21-23	1
	225	265	22-24	1
	250	275	22-24	1
5/64"	60	140	17-18	3/4
	100	210	18-19	3/4
	150	255	21-22	1
	200	300	22-23	1
	250	330	23-24	1

*These parameters may be used in all positions. The ability to weld out of position at the higher current levels will depend on plate thickness and welder skill.

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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.