



## Select 737Ni

### Description:

**Select 737Ni** is a low alloy steel electrode for flux cored arc welding with an external shielding gas. This electrode is intended for single and multiple-pass welding of low alloy steels where a minimum tensile strength of 80,000 psi is required. The recommended shielding gas is argon with 20 to 25 percent carbon dioxide, at a flow rate of 40 cfh and a dew point of at least -40 degrees F.

### Classifications:

- E81T1-GM per AWS A5.29

### Characteristics:

**Select 737Ni** is an all position, flux cored electrode with good arc drive. The arc transfer is very positive, smooth and stable, with low spatter emission. Operation of the electrode is facilitated by the fast freezing slag, which removes readily and cleanly. Modern manufacturing techniques provide excellent quality, consistency, and feedability.

### Applications:

The combination of weldability and good mechanical properties make **Select 737Ni** a superb choice for flux arc cored welding of steels requiring a minimum of 80,000 psi tensile strength and good low temperature toughness. Lack of fusion is not a problem, due to the deep penetrating characteristics of this electrode. Typical applications include the welding of X-70 grade pipe (meets NACE requirements), offshore structures, mining machinery, earthmoving equipment, and structural applications that demand excellent toughness.

### Typical Mechanical Properties (75Ar/25CO<sub>2</sub>)

Ultimate Tensile Strength (psi)	89,400
Yield Strength (psi)	78,000
Percent Elongation	28
CVN (ft•lb f) @ -20° F	80
CVN (ft•lb f) @ -40° F	69

### Typical Weld Deposit Chemistry:

<u>C</u>	<u>Mn</u>	<u>P</u>	<u>S</u>	<u>Si</u>	<u>Ni</u>
.07	1.60	0.008	0.007	0.35	0.85

### Typical Welding Parameters (Ar-25% CO<sub>2</sub>):

Diameter	Position	Optimum			Range	
		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
.035"	Flat	200	600	29	100-250	21-31
	Overhead	160	410	25	100-175	21-27
	Vertical up	160	410	24	100-175	21-27

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