

Select 550Ni

Description:

Select 550Ni is a premium all-position flux cored, gas shielded electrode designed for welding high strength, low-alloy steels such as HY-80 and other similar materials. This electrode is specifically developed to maintain a yield strength of 80ksi and excellent impact toughness at -76°F. It is ideal for large structural fabrication, including lifting equipment, jack-up rigs shipbuilding and other offshore applications. 100% CO₂ is the only recommended shielding gas.

Approvals & Classifications:

- E101T1-G-H4 per AWS A5.29
- ABS 4YQ550 H5, DNV IVY55 H5

Advantages:

- Produces exceptional notch toughness at -76°F
- Possesses minimal spatter emission on 100%CO₂ shielding gas
- Deep penetrating arc that reduces the potential for lack of fusion
- Excellent weldability and productivity for applications typically reserved for SMAW electrodes

Typical Mechanical Properties:

	<u>As-Welded</u>
Ultimate Tensile Strength (psi)	109,000
Yield Strength (psi)	95,000
Percentage Elongation	21
CVN (ft • lb) @ -40° F	56
@ -76° F	46

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>	<u>Mo</u>
100CO ₂	.05	1.80	.007	.013	.26	2.40	.30

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>WFS</u>	<u>Voltage</u>
.045"	Flat	225	450	29	170-260	300-540	25-32
	Overhead	200	285	27	175-235	300-405	27-29
	Vertical up	190	275	25	160-230	265-435	24-28

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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 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.