



Select 721

Description:

Select 721 is an all-position flux cored, gas shielded electrode designed to conform to the MIL-71T-1HYM classification. This electrode is developed primarily for Naval shipbuilding and has the capability to operate on Ar/CO₂ shielding gas mixtures of up to 95% Ar. Select 721 is approved and listed on the US Navy QPL.

Classifications & Approvals:

- E71T-1M-H4, E71T-9M-H4 and E71T-12M-H4 per AWS A5.20
- E71T1-M21A2-CS2, E71T1-M21A4-CS2, E71T1-M20A2-CS2 and E71T1-M20A4-CS2 per AWS A5.36
- MIL-71T-1-HYM per MIL-E-24403/1
- ABS 3SA (C25), ABS 3YSA (C25) and MIL-71T-1-HYM approved

Advantages:

- Low fume generation rates and minimal spatter emission with high Argon gas mixtures
- Excellent bead geometry and all-position weldability
- Diffusible hydrogen level meets military requirement of less than 5 ml/100g

Typical Mechanical Properties:

	<u>75Ar/25CO₂</u>	<u>85Ar/15CO₂</u>
Ultimate Tensile Strength (psi)	81,400	84,000
Yield Strength (psi)	71,000	73,200
Percentage Elongation	31	29
CVN (ft • lb) @ -20° F	81	---
@ -40° F	73	67

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>75Ar/25CO₂</u>	.06	1.09	.006	.007	.33	.44
<u>85Ar/5CO₂</u>	.06	1.23	.006	.007	.34	.44

Recommended Welding Parameters (75Ar/25CO₂*):

<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>Voltage</u>
1/16"	Flat	330	330	28	150-400	22-34
	Overhead	225	180	25	150-310	22-28
	Vertical Up	225	180	24	150-280	22-27
.052"	Flat	275	400	27	140-300	19-32
	Overhead	200	245	25	120-280	21-28
	Vertical Up	200	245	24	120-270	21-27
.045"	Flat	250	450	27	130-300	21-32
	Overhead	190	305	25	150-280	21-30
	Vertical Up	190	305	24	130-260	21-29
.035"	Flat	200	600	26	125-250	21-30
	Overhead	175	490	24	115-220	21-28
	Vertical Up	170	450	24	120-215	21-28

*For higher Argon shielding gases, decrease voltage by 1 to 1.5 volts

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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. The manufacturer disclaims any warranty of merchantability or fitness for any particular purpose with respect to its products.