



## Select 720HP

### Description:

**Select 720HP** is a premium all-position flux cored, gas shielded electrode designed to produce robust and reliable mechanical properties. This electrode is developed for single or multi-pass welding applications that require excellent notch toughness at -40°F. It is ideal for use on structural fabrication, pressure vessels, piping systems and offshore structures. Argon with 20-25% CO<sub>2</sub> or 100%CO<sub>2</sub> may be used as a shielding gas, with a flow rates of 40-50 CFH.

### Classifications & Approvals:

- E71T-1MJ, E71T-1CJ, E71T-9MJ, E71T-9CJ, E71T-12MJ and E71T-12CJ per AWS A5.20
- E71T1-M21A4-CS2 and E71T1-C1A4-CS2 per AWS A5.36
- ABS 3YSA (CO<sub>2</sub>/C25), DNV III YMS (CO<sub>2</sub>), DNV IV YMS (C25), Lloyd's 4YS (C25) and CWB E491T-12MJ-H4 approved

### Advantages:

- Possesses excellent notch toughness at -40°F using Ar/ 20-25%CO<sub>2</sub> or 100%CO<sub>2</sub> shielding gases
- Low fume generation rates and diffusible hydrogen levels meeting H4 requirements
- Excellent bead geometry and all-position weldability
- Minimal spatter emission and easily removed slag reduce weld clean up

### Typical Mechanical Properties:

	<u>75Ar/25CO<sub>2</sub></u>	<u>100CO<sub>2</sub></u>
Ultimate Tensile Strength (psi)	88,000	81,500
Yield Strength (psi)	76,000	66,700
Percentage Elongation	28	28
CVN (ft • lb) @ 0° F	101	110
@ -20° F	85	95
@ -40° F	65	70
@ -50° F	40	37

### 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/25CO<sub>2</sub></u>	.06	1.51	.009	.009	.47	.41
<u>100CO<sub>2</sub></u>	.06	1.30	.009	.009	.42	.39

### Recommended Welding Parameters (CO<sub>2</sub>\*):

<u>Diameter</u>	<u>Position</u>	<u>Optimum</u>			<u>Range</u>		<u>CTWD</u>
		<u>Amperage</u>	<u>WFS</u>	<u>Voltage</u>	<u>Amperage</u>	<u>Voltage</u>	
5/64"	Flat	390	250	29	240-430	26-33	1"-1 1/4"
	V-Up/ OH	250	135	26	240-300	24-28	
1/16"	Flat	350	350	28	150-400	22-33	1"-1 1/4"
	V-Up/OH	225	180	25	150-310	22-28	
.052"	Flat	300	440	27	100-330	19-31	3/4"-1"
	V-Up/OH	200	245	25	150-310	21-28	
.045"	Flat	250	450	27	100-300	21-31	3/4"-1"
	V-Up/OH	190	305	25	150-280	21-29	
.035"	Flat	200	600	29	100-250	21-31	3/4"-1"
	V-Up/OH	160	410	25	100-175	21-27	

\*For 75Ar-25CO<sub>2</sub> shielding gas, 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.