

### DESCRIPTION

Executive 312 provides superior weldability, low spatter and smooth beads with easy slag removal. Designed for welding high tensile alloys it has low crack susceptibility with weld deposits that work-harden to allow for good wear resistance. Executive 312, as welded, boasts the highest tensile and yield strength amongst other stainless electrodes making it suitable for joining hard to weld and dissimilar metals. These electrodes were originally designed to weld cast alloys of similar composition. They have been found to be valuable in welding dissimilar metals, especially if one of them is a stainless steel, high in nickel. This alloy gives a two-phase weld deposit with substantial amounts of ferrite in an austenitic matrix.

### APPLICATIONS & FEATURES

Ideal for a variety of applications such as cast and wrought alloys, tool steels, as well as steels that are harder to weld and dissimilar metals. Even with considerable dilution by austenite forming elements, such as nickel, the microstructure remains two-phase and thus highly resistant to weld metal cracks and fissures. Applications should be limited to service temperature below 800°F (420°C) to avoid formation of secondary brittle phases

### TYPICAL WIRE CHEMISTRY & MECHANICAL PROPERTIES

C	Si	Mn	P	S	Cr	Ni	Mo	Cu
0.10	0.91	0.95	0.035	0.003	28.94	10.27	0.05	0.04

<b>Tensile Strength:</b>	113,000 PSI min	<b>Yield Strength:</b>	88,500 PSI min	<b>Elongation:</b>	25%
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### TYPICAL WELDING PARAMETERS

Process	Diameter	Length	Amperage
<b>SMAW</b>	3/32"	12"	40-70
<b>AC/DC</b>	1/8"	14"	60-100
	5/32"	14"	90-140
	3/16"	14"	120-185

### STANDARD PACKAGING & HANDLING

<b>SMAW</b>	40-lb master box
	10-lb plastic tube

### CLASSIFICATION

AWS/SFA 5.4, Class **E312-16**

