



### DESCRIPTION

**Executive 410** is an air-hardening steel of 12 Cr (nominal composition). Preheat and postweld heat treatments are required to achieve welds of adequate ductility for many engineering purposes. The most common application for this filler metal is welding alloys of similar composition including Types 403, 405 and 416. Executive 410 is also used for deposition of overlays on carbon steels to resist corrosion, erosion, or abrasion.

### CHEMISTRY RANGE

C	Cr	Ni	Mo	Mn	Si	P	S	Cu
0.1	12.5	0.4	0.1	0.4	0.3	0.02	0.01	0.75

### WELDING PARAMETERS

PROCESS	SIZE	VOLTS	AMPS	SPEED OF WELDING / GAS FLOW	SHIELDING GAS / FLUX
SAW	.093	29 - 32	300 - 350	20 - 30 IPM	Record IN Flux
	.125	29 - 32	400 - 550	20 - 30 IPM	Record IN Flux
	.156	29 - 32	500 - 650	20 - 30 IPM	Record IN Flux
GMAW	.035	29 - 33	160 - 180	30 - 50 CFH	98/99% Ar + 2/1% O <sub>2</sub>
	.045	29 - 33	180 - 220	30 - 50 CFH	or
	.062	29 - 33	210 - 250	30 - 50 CFH	97% Ar + 3% CO <sub>2</sub>
GTAW	.093	Direct Current; Electrode –		30 - 40 CFH	100% Ar

### MECHANICAL PROPERTIES

Tensile Strength:	89,000 PSI	620 MPA
Yield Strength:	78,500 PSI	540 MPA
Elongation:	24%	

### CLASSIFICATION

Wire chemistry has been optimized for best performance and conforms to **AWS/SFA 5.9, Class ER410**, ISO 14343A, Class 13 and ISO 14343B, Class SS410.