



#### DESCRIPTION

Executive 2209 is a filler metal designed to weld duplex stainless steels which contain approximately 22 percent chromium such as UNS Number N31803 and S32205. Deposits of this alloy have "duplex" microstructures consisting of an austenite-ferrite matrix. The welds are characterized by high tensile strength and improved resistance to stress corrosion cracking and pitting. The wire is lower in ferrite compared to that of the base metal in order to obtain improved weldability.

#### CHEMISTRY RANGE

C	Cr	Ni	Mo	Mn	Si	P	S	N	Cu
0.03	21.5-23.5	7.5-9.5	2.5-3.5	0.50-2.00	0.90	0.03	0.03	0.08-0.20	0.75

\*single values shown are maximum percentages

#### WELDING PARAMETERS

PROCESS	SIZE	VOLTS	AMPS	SPEED OF WELDING / GAS FLOW	SHIELDING GAS / FLUX
SAW	.093	29 - 32	300 - 350	20 - 30 IPM (500 to 750mm)/min	Record IND 24 Flux
	.125	29 - 32	400 - 550	20 - 30 IPM (500 to 750mm)/min	Record IND 24 Flux
	.156	29 - 32	500 - 650	20 - 30 IPM (500 to 750mm)/min	Record IND 24 Flux
GMAW	.035	29 - 33	160 - 180	30 to 50 CFH	98/99% Ar + 2/1% O <sub>2</sub>
	.045	29 - 33	180 - 220	30 to 50 CFH	or
	.062	29 - 33	210 - 250	30 to 50 CFH	97% Ar + 3% CO <sub>2</sub>
GTAW	.093	Direct Current; Electrode -		30 to 40 CFH	100% Ar

#### MECHANICAL PROPERTIES

Tensile Strength: 100,000 PSI minimum    690 MPA  
Yield Strength: 80,500 PSI                    390 MPA  
Elongation: 20%

#### CLASSIFICATION

Wire chemistry has been optimized for best performance and conforms to AWS/SFA 5.9, Class **ER2209**, ISO 14343A, Class E22 9 3 N L and ISO 14343B, Class ES2209.