



DESCRIPTION

Executive 309L is preferred over ER309 for cladding over carbon or low alloy steels, as well as for dissimilar joints that undergo heat treatment. Executive 309L is the same as ER309 except for the carbon content being lower than .03%. The lower carbon content reduces the possibility of intergranular carbide precipitation. This increases the resistance to intergranular corrosion without the use of stabilizers such as columbium (niobium) or titanium. Strength of this low-carbon alloy, however, is less than that of the columbium (niobium)-stabilized alloys or ER309 at elevated temperatures. Ideal for welding Types 304L, 321, and 347 stainless steels. This is a suitable wire for cryogenic applications, depending on temperature range, process control variables and flux selection. Contact our technical department for assistance on cryogenic applications.

TYPICAL CHEMICAL VALUES

C	Cr	Ni	Mo	Mn	Si	P	S	Cu
0.02	23.4	13.0	0.15	1.7	0.5	0.02	0.02	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 ₂
	.045	29 - 33	180 - 220	30 - 50 CFH	or
	.062	29 - 33	210 - 250	30 - 50 CFH	97% Ar + 3% CO ₂

MECHANICAL PROPERTIES

Tensile Strength:	85,000 PSI	590 MPA
Yield Strength:	58,000 PSI	400 MPA
Elongation:	36%	

CLASSIFICATION

Wire chemistry has been optimized for best performance and conforms to **AWS/SFA 5.9, Class ER309L**, and is certified by the Canadian Welding Bureau to AWS A5.9. ISO 14343A, Class 23 12 L and ISO 14343B, Class SS309L.