



Stainless Steel BARE WIRE DATA SHEET

executive 347

DESCRIPTION

Executive 347 contains the addition of niobium thereby reducing the possibility of intergranular carbide precipitation and thus susceptibility to intergranular corrosion. The filler metal of this classification is usually used for welding chromium-nickel stainless steel base metals of similar composition stabilized with either Nb or Ti. Although Nb is the stabilizing element usually specified in Type 347 alloys, it should be recognized that tantalum (Ta) is also present. Ta and Nb are almost equally effective in stabilizing carbon and in providing high temperature strength. If dilution by the base metal produces a low ferrite or fully austenitic weld metal, the crack sensitivity of the weld may increase substantially.

Executive 347 has a ferrite restricted to 4-10 by WRC-92. Flux IND 24 provides enhanced operator appeal when welding SAW, but care must be taken to control base metal dilution on carbon steels. In cases where cracking is experienced, Record IN is the preferred flux choice.

TYPICAL CHEMICAL VALUES

C	Cr	Ni	Mo	Mn	Si	P	S	Cu	Nb
0.05	20.0	10.0	0.1	1.6	0.5	0.01	0.01	.75	10xC min – 1.0 max

WELDING PARAMETERS

PROCESS	SIZE	VOLTS	AMPS	SPEED OF WELDING / GAS FLOW	SHIELDING GAS / FLUX
SAW	.093	29 - 32	300 - 350	20 - 30 IPM	Record IND 24 Flux
	.125	29 - 32	400 - 550	20 - 30 IPM	Record IND 24 Flux
	.156	29 - 32	500 - 650	20 - 30 IPM	Record IND 24 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
GTAW	.093	Direct Current; Electrode –		30 - 40 CFH	100% Ar

MECHANICAL PROPERTIES

Tensile Strength:	86,500 PSI	600 MPA
Yield Strength:	57,000 PSI	390 MPA
Elongation:	35%	

CLASSIFICATION

Wire chemistry has been optimized for best performance and conforms to **AWS/SFA 5.9, Class ER347**.
ISO 14343A, Class 19 9 Nb and ISO 14343B, Class SS347.