



## Stainless Steel BARE WIRE DATA SHEET

### executive 320

#### DESCRIPTION

**Executive 320** has a nominal composition of 20 Cr, 34 Ni, 2.5 Mo, 3.5 Cu, with Nb added to provide resistance to intergranular corrosion. Executive 320 is primarily used to weld base metals of similar composition for applications where resistance to severe corrosion involving a wide range of chemicals, including sulfuric and sulfurous acids and their salts, is required. Executive 320 can be used to weld both castings and wrought alloys of similar composition without postweld heat treatment. Being a fully austenitic alloy, care must be taken to minimize heat input during welding in order to reduce the potential for cracking.

#### TYPICAL CHEMICAL VALUES

C	Cr	Ni	Mo	Mn	Si	P	S	Cu	Nb <sup>a</sup>
0.04	20.0	34.0	2.5	2.1	0.4	0.01	0.01	3.5	8xC min – 1.0 max

<sup>a</sup> Nb may be reported as Nb + Ta

#### 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:	87,500 PSI	600 MPA
Yield Strength:	59,000 PSI	410 MPA
Elongation:	34%	

#### CLASSIFICATION

Wire chemistry has been optimized for best performance and conforms to **AWS/SFA 5.9, Class ER320**.  
ISO 14343B, Class SS320.