

## GEN 316 Welding Wire and Rod

GEN 316 is mainly used for welding molybdenum-bearing stainless steel, such 316, 318 and 319. The presence of molybdenum provides improved resistance to pitting by corrosive liquids.

### CONFORMANCES

AWS A5.9/A5.9M	:	ER316
ASME SFA-A5.9	:	ER316
UNS	:	S31680

### AWS CHEMICAL COMPOSITION (TYPICAL)

%C	%Cr	%Ni	%Mo	%Mn
0.08 max 0.043	18.0 – 20.0 18.35	11.0 – 14.0 11.3	2.0 – 3.0 2.11	1.0 – 2.5 1.76
%Si	%P	%S	%Cu	
0.30 – 0.65 0.42	0.03 max 0.025	0.03 max 0.003	0.75 max 0.060	

### TYPICAL WELD METAL MECHANICAL PROPERTIES

Tensile Strength	:	88,000 psi	606 MPa
Yield Strength	:	58,000 psi	400 MPa
Elongation	:	40 %	

### TYPICAL WELDING PARAMETERS

Process	Diameter		Voltage	Amperage	Gas/Flux
TIG (GTAW)	1/16"	1.6 mm	14 – 17	90 – 130	100% Ar
	3/32"	2.4 mm	15 – 20	125 – 175	100% Ar
MIG (GMAW)	.035"	0.9 mm	29 - 33	160 – 180	98%Ar – 2%O <sub>2</sub>
	.045"	1.1 mm	29 – 33	180 – 220	
	.063"	1.6 mm	29 - 33	210 - 250	
Sub Arc (SAW)	.093"	2.4 mm	29 – 32	300 – 350	
	.125"	3.2 mm	29 – 32	400 – 550	
	.156"	4.0 mm	29 – 32	500 - 650	

\*All parameters are suggested as basic guidelines only and will vary depending on joint design, number of passes and other factors.

IMPORTANT: SPECIAL VENTILATION AND/OR EXHAUST REQUIRED
BEFORE USE, READ AND UNDERSTAND THE SAFETY DATA SHEET (SDS) FOR THIS PRODUCT AND SPECIFIC INFORMATION PRINTED ON THE PRODUCT CONTAINER.

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