GEN 316L Welding Wire and Rod

GEN 316L shares the same characteristics as GEN 316, except for the lower carbon content. GEN 316L is primarily used for welding low-carbon molybdenum-bearing austenitic alloys. The lower carbon content reduces the possibility of intergranular chromium carbide precipitation and thus increases the resistance against intergranular corrosion.

CONFORMANCES

AWS A5.9/A5.9M	:	ER316L
ASME SFA-A5.9	:	ER316L
UNS	:	S31683

AWS CHEMICAL COMPOSITION *(TYPICAL)*

%C	%Cr	%Ni	%Mo	%Mn
0.03 max	18.0 – 20.0	11.0 – 14.0	2.0 – 3.0	1.0 – 2.5
0.01	*18.5*	*12.2*	*2.4*	*1.7*

%Si	%P	%S	%Cu
0.30 – 0.65	0.03 max	0.03 max	0.75 max
0.37	*0.02*	*0.01*	*0.20*

TYPICAL WELD METAL MECHANICAL PROPERTIES

Tensile Strength	:	86,000 psi	593 MPa
Yield Strength	:	58,000 psi	400 MPa
Elongation	:	35 %	

TYPICAL WELDING PARAMETERS

Process	Diameter		Voltage	Amperage	Gas/Flux
TIG (GTAW)	1/16”	1.6 mm	14 – 17	80 – 150	100% Ar
	3/32”	2.4 mm	15 – 20	150 – 250	100% Ar
	1/8”	3.2 mm	16 – 20	200 – 375	100% Ar
MIG (GMAW)	.035”	0.9 mm	29 - 33	160 - 180	98%Ar – 2%O_2
	.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.