

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
 ISO 14343B : SS316L

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

Yield Strength : 58,000 psi
 Tensile Strength : 86,000 psi
 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	22 – 23	180 – 210	98%Ar – 2%O ₂
	.045"	1.1 mm	23 – 25	190 – 250	98%Ar – 2%O ₂
Sub Arc (SAW)	.093"	2.4 mm	28 – 32	250 – 450	
	.125"	3.2 mm	29 – 33	300 – 500	

*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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