

GEN 320LR Welding Wire and Rod

GEN 320LR has a chemical composition similar to GEN 320 with lower level of carbon, silicon, phosphorus and sulfur. Additionally, niobium (columbium) and manganese content are controlled at narrower ranges. These modifications minimize the occurrence of hot cracking and micro-fissuring (while maintaining the corrosion resistance) frequently encountered in fully austenitic stainless steel weld metals.

CONFORMANCES

AWS A5.9/A5.9M	:	ER320LR
ASME SFA-A5.9	:	ER320LR
UNS	:	N08022

AWS CHEMICAL COMPOSITION (TYPICAL)

%C	%Cr	%Ni	%Mo	%Mn
0.025 max 0.007	19.0 – 21.0 20.02	32.0 – 36.0 32.82	2.0 – 3.0 2.38	1.5 - 2.0 1.84
%Si	%P	%S	%Cu	%Nb (Cb)
0.15 max 0.07	0.015 max 0.012	0.02 max 0.001	3.0 – 4.0 3.35	8x%C – 0.4 0.23

TYPICAL WELD METAL MECHANICAL PROPERTIES

Tensile Strength	:	86,000 psi	593 MPa
Yield Strength	:	57,000 psi	393 MPa
Elongation	:	34 %	

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	120 – 175	100% Ar
MIG (GMAW)	.035"	0.9 mm	29 – 33	160 – 190	98%Ar – 2%O ₂
	.045"	1.1 mm	29 – 33	180 – 220	98%Ar – 2%O ₂
Sub Arc (SAW)	.093"	2.4 mm	29 – 32	300 – 375	
	.125"	3.2 mm	29 – 32	400 – 550	

*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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