

GEN 409Nb Welding Wire and Rod

GEN 409Nb is a ferritic stainless steel welding wire which is used to weld type 409 and 409Ti base alloys. The niobium addition forms carbides to improve corrosion resistance and promote the ferritic microstructure.

CONFORMANCES

AWS A5.9/A5.9M	:	ER409Nb
ASME SFA-A5.9	:	ER409Nb
UNS	:	S40940

AWS CHEMICAL COMPOSITION (TYPICAL)

%C	%Cr	%Ni	%Mo	%Mn
0.08	10.5 – 13.5	0.60 max	0.50 max	0.80 max
0.03	11.34	0.27	0.042	0.52

%Si	%P	%S	%Cu	%Cb (Nb)
1.00 max	0.04 max	0.03 max	0.75 max	10xC – 0.75
0.53	0.021	0.002	0.02	0.40

TYPICAL WELD METAL MECHANICAL PROPERTIES

Tensile Strength	:	68,000 psi	469 MPa
Yield Strength	:	50,000 psi	345 MPa
Elongation	:	23 %	

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 – 170	100% Ar
	1/8"	3.2 mm	16 – 20	200 – 350	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	28 – 32	250 – 450	
	.125"	3.2 mm	29 – 34	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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