Unibraze 409Nb

CLASSIFICATIONS: AWS A5.9/ASME SFA 5.9 Class ER409Nb UNS S40940

DESCRIPTION: Unibraze 409Nb is a ferritic stainless steel welding wire used to weld 409 and 409Ti base metals. The addition of niobium improves corrosion resistance and promotes a ferritic micro-structure. For the best results, welding in a low heat input procedure is required. Unibraze 409Nb is not recommended for multi-pass applications.

TYPICAL CHEMISTRY:

C	Cr	Ni	Mo	Mn	Si	P	S	N	Cu	Nb + Ta	FN (WRC)
.08 max	10.5-13.5	.60 max	.50 max	.80 max	1.0 max	.04 max	.03 max		.75 max	10xC - .75	0

TYPICAL MECHANICAL PROPERTIES:

Tensile Strength	67,000 psi (460MPa)
Yield Strength	50,500 psi (350 MPa)
Elongation	26%

TYPICAL WELDING PARAMETERS:

	Shielding Gas	Gas Flow	Diameter	Voltage	Amperage
MIG	98/99% Ar +2/1% O 97%Ar + 3% CO_2	30 to 50 CFH	.035" (.9mm) .045" (1.14mm) .062" (1.6mm)	26-29 28-32 29-33	160 /210 180/250 200/280
TIG	100% Ar		1/16" (1.6mm) 3/32" (2.4mm) 1/8" (3.2mm)	14-18 15-20 15-20	90/130 120/175 150/220
SUBARC	Suitable Flux		3/32" (2.4mm) 1/8" (3.2mm)	28-33 29-32	275/350 350/450

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