



Unibraze 309LSi

CLASSIFICATIONS: AWS A5.9/ASME SFA 5.9 Class ER309LSi UNS S30988

DESCRIPTION: Unibraze 309LSi is a modified version of Unibraze 309L with an elevated silicon content to increase arc stability and weld puddle fluidity giving improved bead appearance, better weldability and operator appeal. It is used in dissimilar applications as well as a barrier layer in stainless steel overlays.

TYPICAL CHEMISTRY:

C	Cr	Ni	Mo	Mn	Si	P	S	N	Cu	FN (WRC)
.30 max	23.0-25.0	12.0-14.0	.75 max	1.0-2.5	.65-1.00	.03 max	.03 max		.75 max	10

TYPICAL MECHANICAL PROPERTIES:

Tensile Strength	89,500 psi (620 MPa)
Yield Strength	60,500 psi (420 MPa)
Elongation	35%
Charpy Impacts@ RT	92 ft lbs

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)	26-29	160 /210
			.045" (1.14mm)	28-32	180/250
			.062" (1.6mm)	29-33	200/280
TIG	100% Ar		1/16" (1.6mm)	14-18	90/130
			3/32" (2.4mm)	15-20	120/175
			1/8" (3.2mm)	15-20	150/220
SUBARC	Suitable Flux		3/32" (2.4mm)	28-33	275/350
			1/8" (3.2mm)	29-32	350/450

Notice: The results reported are based upon testing of the product under controlled laboratory conditions in accordance with American Welding Society Standards. Actual use of the product may produce different results due to varying conditions. An example of such conditions would be electrode size, plate chemistry, environment, weldment design, fabrication methods, welding procedure and service requirements. Thus the results are not guarantees for use in the field. The manufacturer disclaims any warranty of merchantability or fitness for any particular purpose with respect to its products.