



Unibraze 82

CLASSIFICATIONS: AWS A5.14/ASME SFA 5.14 Class ERNiCr-3 UNS N06082

DESCRIPTION: Unibraze 82 is a nickel alloy wire used for TIG, MIG and SAW welding of 600 and 800 series nickel alloys. The weld metal has high strength and good corrosion resistance, including oxidation resistance and creep-rupture strength at elevated temperatures. Unibraze 82 is an excellent choice for dissimilar welding of nickel alloys to stainless and carbon steels, as well as overlaying.

TYPICAL CHEMISTRY:

C	Cr	Ni	Mo	Mn	Si	P	S	Fe	Cu	Nb+ Ta	Ti	Others
.10 max	18.0- 22.0	67.0 min		2.5- 3.5	.50 max	.03 max	.015 max	3.0 max	.50 max	2.0- 3.0	.75 max	.50 max

TYPICAL MECHANICAL PROPERTIES:

Tensile Strength	86,000 psi (590 MPa)
Yield Strength	52,000 psi (360 MPa)
Elongation	38%

TYPICAL WELDING PARAMETERS:

	Diameter	Voltage	Amperage	Shielding Gas
MIG	.035" (.9mm)	26-29	150/190	75% Ar/25% He
	.045" (1.14mm)	28-32	180/220	
	.062" (1.6mm)	29-33	200/250	
TIG	.035" (.9mm)	12-15	60-90	100% Ar
	.045" (1.14mm)	13-16	80-110	
	1/16" (1.6mm)	14-18	90-130	
	3/32" (2.4mm)	15-20	120-175	
	1/8" (3.2mm)	15-20	150-220	
SAW	3/32" (2.4mm)	28-30	275-350	Suitable Flux
	1/8" (3.2mm)	29-32	350-450	
	5/32" (4.0mm)	30-33	400-550	

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.