



Unibraze 617

CLASSIFICATIONS: AWS A5.14/ASME SFA 5.14 Class ERNiCrCoMo-1 UNS N06617

DESCRIPTION: Unibraze 617 is used for GTAW, GMAW and SAW welding of alloys of similar composition and dissimilar metals such as stainless, low alloy and carbon steels. It has excellent high temperature strength, oxidation resistance and metallurgical stability from 1500 °F to 2100°F, making it an excellent choice for welding 800 series alloys and cast alloy such as HK-40, HP and HP-45 modified.

TYPICAL CHEMISTRY:

C	Cr	Ni	Mo	Mn	Si	P	S	Fe	Cu	Co	Al	Ti	Others
.05- .15	20.0- 24.0	Bal	8.0- 10.0	1.0 max	1.0 max	.03 max	.015 max	3.0 max	.50 max	10.0- 15.0	.80- 1.5	.60 max	.50 max

TYPICAL MECHANICAL PROPERTIES:

Tensile Strength	112,000 psi (770 MPa)
Yield Strength	80,000 psi (610 MPa)
Elongation	28%

TYPICAL WELDING PARAMETERS:

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

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.