



## Unibraze 686

**CLASSIFICATIONS:** AWS A5.14/ASME SFA 5.14 Class ERNiCrMo-14 UNS N06686

**DESCRIPTION:** Unibraze 686 is a 57% Nickel, 21% Chromium, 16% Molybdenum, 4% Tungsten corrosion resistant alloy used for GTAW and GMAW of NiCrMo alloys (ASTM B574, B575, B619, B622, and B628) to itself, to steel, to other nickel based alloys and for cladding steel. Unibraze 686 offers maximum resistance to pitting, crevice corrosion, and mixed acids. It provides overmatching corrosion resistant welds for all types of NiCrMo alloys and duplex, super duplex and super austenitic stainless steels.

### TYPICAL CHEMISTRY:

Ni	Cr	Mo	W	Fe	Mn	Si	C	P	S	Cu	Ti	Al
57.0	21.0	16.0	4.0	.40	.30	.06	.01	.001	<.001	<.01	.08	.20

### TYPICAL MECHANICAL PROPERTIES:

Tensile Strength	110,000 psi (760 MPa)
Elongation	35%

### 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	1/16" (1.6mm)	14-18	90-130	100% Ar
	3/32" (2.4mm)	15-20	120-175	
	1/8" (3.2mm)	15-20	150-220	

**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. 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.