



Unibraze X

CLASSIFICATIONS: AWS A5.14/ASME SFA 5.14 Class ERNiCrMo-2 UNS N06002

DESCRIPTION: UNIBRAZE X is a NiCrMo alloy used for welding of similar base metals to itself or to stainless steel, carbon steel and low alloy steels. This filler metal offers an exceptional combination of oxidation, corrosion, thermal shock resistance, fabricability and high-temperature strength. UNIBRAZE X exhibits good ductility after prolonged exposure at temperatures of 1200, 1400, 1600°F (650, 760 and 870°C) for 16,000 hours. It commonly used in the aerospace industry for engine tailpipes, turbine blades, nozzle vanes and after burner components and is also used in petro-chemical applications to combat stress corrosion cracking.

Chemical Composition

	C	Mn	Fe	P	S	Si	Cu	Ni	Co	Cr	Mo	W
AWS/ASME 5.14	.05- .15	1.0 max	17.0- 20.0	.04	.03	1.0 max	.50 max	Bal	.50- 2.50	20.5- 23.0	8.0- 10.0	.20- 1.0
Typical	.06	.10	18.6	.01	<.001	.10	<.03	48.6	1.60	21.3	8.7	.60

Typical Mechanical Properties

Tensile Strength	95,000 psi (660 MPa)
Elongation	30%

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	

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 purpose with respect to its products.