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) .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

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