



Unibraze 410NiMoT1

All Position

Classifications:

E410NiMoT1-1, E410NiMoT1-4 per AWS A5.22

Description:

Unibraze 410NiMoT1 is a gas-shielded, flux cored, stainless steel electrode designed to weld martensitic stainless steels in all positions. It has a nominal weld metal composition of 12% chromium, 4.5% nickel, 0.6% molybdenum and a maximum carbon content of 0.06%.

Characteristics:

Unibraze 410NiMoT1's fast freezing slag facilitates welding in the vertical up and overhead positions. Because it produces low spatter and nearly self-removing slag, the Unibraze 410NiMoT1 has very high welder appeal.

Applications:

This electrode finds wide application in the power generation industry, especially with turbine blades and vanes. Select 410NiMo-AP is widely used for welding ASTM CA6NM castings as well as 410, 410S and 405 stainless steels.

Diameters: .045", 1/16"

Shielding Gases: 100% CO₂, 75-80% Ar/balance CO₂, 40-55 cfh

Welding Positions: All positions

Typical Mechanical Properties: (SR 1 Hr @ 1125°F)

	CO ₂	Ar/CO ₂ Mix
Ultimate Tensile Strength (psi)	126,000	132,100
Yield Strength (psi)	109,000	119,500
Percent Elongation	18	16

Typical Weld Deposit Chemistry:

CO ₂	C - 0.04	Mn - 0.71	Cr - 11.90	Si - 0.53	Ni - 4.60	Mo - 0.54
Ar/CO ₂ Mix	C - 0.03	Mn - 0.72	Cr - 12.00	Si - 0.55	Ni - 4.52	Mo - 0.60

Typical Welding Parameters: (CO₂)*

Diameter	Position	Optimum			Range	
		WFS (ipm)	Amperage	Voltage	Amps	Volts
.045"	Flat	450	250	28	130-300	21-32
.045"	Overhead	305	190	26	150-280	21-30
.045"	Vertical Up	305	190	25	130-260	21-29
1/16"	Flat	330	330	29	150-400	22-34
1/16"	Overhead	180	225	26	150-310	22-28
1/16"	Vertical Up	180	225	25	150-280	22-27

* Reduce by 1 volt when using Ar+20-25% CO₂.

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.