



UNIBRAZE 410NiMoT1

Classifications:

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

Description:

UNIBRAZE 410NiMoT1 is a gas-shielded, flux cored, stainless steel electrode designed for single or multipass welding in all positions. It has a nominal weld metal composition of 12% Cr, 4.5% Ni, 0.6% Mo and a maximum carbon content of 0.06%. **UNIBRAZE 410NiMoT1** deposits a low carbon, martensitic stainless steel. It is designed for use with either 100% carbon dioxide or 75% Argon-25% Carbon Dioxide.

Characteristics:

UNIBRAZE 410NiMoT1 provides superb performance characteristics in all positions. Flat, well washed beads can be achieved with minimal weaving. Spatter is low and slag peeling is excellent, minimizing cleanup.

Applications:

UNIBRAZE 410NiMoT1 finds wide application in power generation equipment, such as turbine blades and vanes. It is widely used to weld ASTM CA6NM castings as well as 410, 410S and 405 stainless steels.

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

	<u>CO₂</u>	<u>Ar-25%CO₂</u>
Ultimate Tensile Strength (psi)	126,000	132,100
Yield Strength (psi)	109,000	119,500
Percent Elongation	18	16

Typical Weld Deposit Chemistry):

Gas mix	C	Cr	Ni	Mo	Mn	Si
CO ₂	0.04	11.90	4.60	0.60	0.71	0.53
Ar-25%CO ₂	0.03	12.00	4.52	0.54	0.72	0.55

Typical Welding Parameters (CO₂)*:

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

* For Ar-25%CO₂ reduce voltage by 1 to 1.5 volts

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.