



Unibraze 316 (ER316/ER316H)

DESCRIPTION: Unibraze 316 is used to weld wrought and cast forms of similar composition. The presence of molybdenum increases its creep resistance at elevated temperatures. The lower ferrite level of this nominal composition reduces the rate of corrosion in certain media.. Unibraze 316 varies from Unibraze 316L only in that the carbon content range is from .04% - .08%.

APPROVALS: Manufactured under Quality System approved by ASME, ISO9001. Meets AWS 5.9 Class ER316H

TYPICAL CHEMICAL COMPOSITION

Carbon	.05
Manganese	1.75
Silicon	.48
Chromium	19.4
Nickel	12.2
Molybdenum	2.30
Sulfur	.003
Phosphorus	.012
Nitrogen	.04

MECHANICAL PROPERTIES

Tensile Strength

88,500 PSI 610 MPA

Yield Strength

59,000 PSI 410 MPA

Elongation 35%

WELDING PARAMETERS

MIG WELDING: Direct current; Electrode +Ve

Shielding Gas 98/99% Argon + 2/1% Oxygen
 97% Argon + 3% CO₂

Gas Flow 30 to 50CFH

Voltage 29 to 33

Amperage 160/180 for .035" (0.9mm)
 180/220 for .045" (1.14mm)
 210/250 for .062" (1.6mm)

T.I.G. WELDING: Direct Current; Electrode -Ve

Shielding Gas 100% Argon

Gas Flow 30 to 40 CFH

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.