



Unibraze 309L-C

Metal Core

Classification:

EC309L per AWS A5.9 (Also meets EC309 per AWS A5.9)

Description:

The low carbon content of the Unibraze 309L-C stainless steel metal cored wire minimizes carbide precipitation and makes the weld metal more resistant to intergranular corrosion. Even with higher deposition rates and travel speeds than solid wire and a very smooth spray arc transfer, Unibraze 309L-C produces virtually no spatter and little or no slag.

Applications:

Unibraze 309L-C is used to weld type 309 stainless steel, to join carbon and low alloy steels to austenitic stainless steels, to weld 304 clad sheets and for first layer cladding of carbon steel. It is also designed for welding refinery and chemical processing equipment, as well as furnace and auto exhaust parts.

Diameters: .045", 1/16"

Shielding Gas: Ar/1-2% O₂ or Ar/1-2% CO₂, 35-50 cfh

Welding positions: Flat and Horizontal

Typical Mechanical Properties: (98/2 Ar/O₂)

Ultimate Tensile Strength (psi) 84,200
Yield Strength (psi) 64,100
Percent Elongation 35 %

Typical Weld Deposit Chemistry: (98/2 Ar/O₂)

C - 0.03 Mn - 1.50 Cr - 23.90 Si - 0.50 Ni - 12.35 N - 0.05

Ferrite Number (WRC, 1992) - ~17

Typical Welding Parameters: (98/2 Ar/O₂)

Diameter	WFS (ipm)	Amperage	Voltage	ESO (in.)	Dep. Rate (lbs/hr)
.045"	250	180	21	1/2-5/8"	7.1
.045"	400	240	23	1/2-5/8"	11.2
.045"	500	280	25	1/2-5/8"	14.2
.045"	650	300	28	1/2-5/8"	18.5
1/16"	150	190	24	3/4-1"	7.6
1/16"	250	280	25	3/4-1"	12.9
1/16"	350	385	26	3/4-1"	17.8
1/16"	450	490	32	3/4-1"	23.2

** Optimum conditions are in boldface type.

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.