



# Unibraze 310

**CLASSIFICATIONS:** AWS A5.9/ASME SFA 5.9 Class ER310    UNS S31080

**DESCRIPTION:** Unibraze 310 is used for welding stainless of similar composition. The weld is fully austenitic and calls for low heat during welding. This filler metal can be used for dissimilar welding and works well in severe corrosive environments such as paper mill machinery.

**TYPICAL CHEMISTRY:**

C	Cr	Ni	Mo	Mn	Si	P	S	Cu	FN (WRC)
.08-.15	25.0-28.0	20.0-22.5	.75 max	1.0-2.5	.30-.65	.03 max	.03 max	.75 max	0

**TYPICAL MECHANICAL PROPERTIES:**

Tensile Strength	89,500 psi (620MPa)
Yield Strength	60,500 psi (420 MPa)
Elongation	34%
Charpy Impacts@ RT	85 ft lbs. (115 J)

**TYPICAL WELDING PARAMETERS:**

	Shielding Gas	Gas Flow	Diameter	Voltage	Amperage
MIG	98/99% Ar +2/1% O 97%Ar + 3% CO <sub>2</sub>	30 to 50 CFH	.035" (.9mm)	26-29	160 /210
			.045" (1.14mm)	28-32	180/250
			.062" (1.6mm)	29-33	200/280
TIG	100% Ar		1/16" (1.6mm)	14-18	90/130
			3/32" (2.4mm)	15-20	120/175
			1/8" (3.2mm)	15-20	150/220

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.