



# Unibraze 16.8.2

**CLASSIFICATIONS:** AWS A5.9/ASME SFA 5.9 Class ER16.8.2 UNS S16880

**DESCRIPTION:** Unibraze 16.8.2 stainless steel wire used for welding 16-8-2, 316 and 347 high pressure, high temperature piping systems.

**TYPICAL CHEMISTRY:**

C	Cr	Ni	Mo	Mn	Si	P	S	Cu	FN (WRC)
.04-.10	14.5-16.5	7.5-9.5	2.0-3.0	1.0-2.0	.30-.60	.03 max	.02 max	.30 max	1-6

**MECHANICAL PROPERTIES:**

As Welded	Typical MPa		High Temperature (TIG)		
	TIG	SAW	650°C	732°C	816°C
Tensile Strength	620	630	315	241	173
.2% Proof Stress	450	360	221	178	147
Elongation on 4d	25%	29%			
Elongation on 5d		29%	31	36	42
Reduction of Area		30%	67	69	65
Impact energy -196°C			30J		

**TYPICAL WELDING PARAMETERS:**

	Shielding Gas	Diameter	Voltage	Amperage
TIG	100% Ar	3/32" (2.4mm)	12	100
SAW	Suitable Flux	3/32" (2.4mm)	30	350, DC+

**FUME DATA:**

*Fume composition (wt %) (TIG & SAW fume negligible)*

Fe	Mn	Cr <sup>3</sup>	Ni	Mo	Cu	OES (mg/m <sup>3</sup> )
40	10	12	7	.5	<.5	4.2

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.