



# Unibraze 70S-A1 (ER70S-A1)

**Classification:**

AWS A5.28 / ASME SFA5.28 Class ER70SA1

**Description:**

Unibraze 70S-A1 is suitable for welding 0.5% Mo steels and heat resistant steels. The weld deposit is highly resistant to cold cracking.

**Typical Chemical Composition:**

C	Mn	Si	P	S	Mo
0.08	1.00	0.60	0.020	0.01	0.50

**Typical Mechanical Properties:\***

Tensile Strength	Yield Strength	Elongation in 2"
78,600 psi	59,000 psi	20%

\*Mechanical properties listed reflect a PWHT of 1150°F (620°C) .

**Recommended Preheat, Interpass and Postweld Heat Treatment Temperatures:**

Preheat & Interpass	275 - 325°F	(135 - 165°C)
Post Weld Heat Treat	1150 +/-25°F	(620 +/- 15°C)

**Recommended Welding Parameters:\*\***

**GMAW** (DC Reverse Polarity) Electrode Positive Spray transfer:

<u>Wire Dia.</u>	<u>Amps</u>	<u>Volts</u>	<u>Gas</u>
.035	180-230	25-28	98Ar/2O <sub>2</sub>
.045	250-350	25-30	75Ar/25CO <sub>2</sub>
1/16	280-400	26-36	75Ar/25CO <sub>2</sub>

**GTAW** (DCSP) 2 % Thoriated Tungsten Electrode negative

<u>Wire Dia.</u>	<u>Amps</u>	<u>Volts</u>	<u>Gas</u>
1/16"	50-120	7-13	Argon
3/32"	120-200	10-16	Argon
1/8"	150-220	12-18	Argon

\*\* All parameters are suggested as basic guidelines and will vary depending on joint design number of passes, and other factors.

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.