



Unibraze 100S-1

(ER100S-1)

Classification: AWS A5.28 / ASME SFA5.28 Class ER100S-1

Description: Unibraze ER100S-1 is a low alloy copper coated welding wire that produces high tensile strength, high impact resistant welds deposits that retain their toughness to -60°F making it suitable for low temperature critical applications. Unibraze ER100S-1 is recommended for the welding of HY80 and HY100 steels.

Typical Chemical Composition:

C	Mn	Si	P	S	Ni	Cr	Mo	Al	Ti	V	Zr	Fe
.06	1.6	.40	.010	.010	1.9	.30	.33	.10	.10	.005	.10	Bal.

Typical Mechanical Properties: (As Welded)

Tensile Strength	100,000 psi	690 MPa
Yield Strength	98,000 psi	610 MPa
Elongation % in 2"	16%	
Impacts Values	50 ft. lbs @ -60°F	68J @ -51°C

Welding Parameters:

SPRAY TRANSFER				SHORT ARC		
Dia.	Amps	Volts	Gas	Amps	Volts	Gas
.035"	165-200	28-32	98%Ar/2%O ₂	100-140	22-25	100% CO ₂
.045"	180-220	30-34	75%Ar/25%CO ₂	120-150	23-26	75%Ar/25%CO ₂

Note: Mechanical properties are greatly influenced by preheat, interpass temperature and PWHT.

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.