



Unibraze 80S-B2

(ER80S-B2)

Unibraze 80S-B2 is used to weld 1¼ Chrome – ½ Moly steels for elevated temperatures and corrosive service. Careful control of preheat, interpass temperatures, and post-weld heat treatment is necessary to prevent cracking. Unibraze 80S-B2 is classified after post-weld heat treatment. Special care must be taken when using it in the as-welded condition due to higher strength levels. Recommended shielding gas is CO₂ or an Argon/CO₂ mixture.

Typical Chemical Composition

Carbon	0.07 – 0.12
Manganese	0.40 – 0.60
Chromium	1.20 – 1.50
Molybdenum	0.40 – 0.65
Silicon	0.40 – 0.70
Copper	0.35
Nickel	0.20
Phosphorus	0.25
Sulfur	0.025
Others	0.50

Typical Mechanical Properties (As welded)

Tensile Strength	80,000 psi, min. (550 MPa)
Yield Strength	68,000 psi, min. (470 MPa)
Elongation in 2"	19% min

Operating Ranges (Amps)

MIG	
.035"	100 -150
.045"	150 -200

Specifications

AWS A5.28 / ASME SFA5.28 Class ER80S-B2

Standard Sizes

MIG	.035", .045", .062"
TIG:	3/32" (2.4mm), 1/8" (3.2mm), 5/32" (4.0mm)