Unibraze 70S-B2L
(ER70S-B2L)

Classification:
AWS A5.28 / ASME SFA5.28 Class ER70S-B2L

Description:
Unibraze 70S-B2L is identical to Unibraze 80S-B2 except for the low-carbon content (0.05 percent maximum). It exhibits greater resistance to cracking and is more suitable for welds to be left in the as-welded condition or when the accuracy of the postweld heat treatment operation is questionable. The classification was previously ER80S-B2L but the strength requirements and classification designator have been changed to reflect the true strength capabilities due to the lower carbon content in the chemical composition

Applications:
Unibraze 70S-B2L is used to weld 1/2Cr-1/2Mo, 1Cr-1/2Mo, and 1-1/4Cr-1/2Mo steels for elevated temperatures and corrosive service. It is also used for joining dissimilar combinations of Cr-Mo and carbon steels. A preheat and interpass temperature of not less than 275°F should be maintained during welding.

Typical Chemical Composition

C	Mn	Si	P	S	Ni	Cr	Mo	Cu	Other
0.05	0.40-0.70	0.40-0.70	0.025	0.025	0.20	1.20-1.50	0.40-0.65	0.35	0.50

Typical Mechanical Properties

Tensile Strength	75,000 PSI
Yield Strength	58,000 PSI
Elongation in 2”	19%

Note: Mechanical properties listed reflect a PWHT of 1150°F.

Recommended Welding Parameters:

Process	Dia. Of Wire	Amperage	Voltage	Gas
GTAW (TIG)	1.16”	50 - 120	7 - 13	Argon
	3/32”	120 - 200	10 - 16	Argon
	1/8”	150 - 200	12 - 18	Argon
GMAW (MIG)	.035	90 - 160	14 - 20	CO_2
Short Arc	.045	120 - 200	16 - 20	CO_2 or 75% Argon / 25% CO_2
GMAW (MIG)	.035	180 - 230	25 - 28	98% Argon / 2% O_2
Spray Arc	.045	250 - 350	25 - 30	75% Argon / 25% CO_2

Standard Sizes
MIG: .035”, .045”
TIG: 1/16”, 3/32”, 1/8”, 5/32”

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