



70S-B2L (ER70S-B2L)

Classification:

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

Description:

70S-B2L is identical to 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:

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) Short Arc	.035	90 - 160	14 - 20	CO ₂
	.045	120 - 200	16 - 20	CO ₂ or 75% Argon / 25% CO ₂
GMAW (MIG) Spray Arc	.035	180 - 230	25 - 28	98% Argon / 2% O ₂
	.045	250 - 350	25 - 30	75% Argon / 25% CO ₂

Standard Sizes

MIG: .035", .045"

TIG: 1/16", 3/32", 1/8", 5/32"

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.

Edmonton, AB Office
8804 51 Ave
Edmonton, AB T6E 5E8
Phone: 780-468-1777
Fax 780-468-1758

Chilliwack, BC Corporate
Unit A, 44636 Yale Rd West
Chilliwack, BC V2R 0G5
Phone: 604-701-6533
Fax 604-701-6559

Surrey, BC Office
Unit 11, 13085 115 Ave
Surrey, BC V3R 4S7
Phone: 1-877-233-1378
Fax: 604-701-6559

Saskatoon, SK Office
Unit#8, 401 Pakwa Place
Saskatoon, SK S7L 5Z9
Phone: 306-974-9750
Fax 306-974-9752

Prince George
1557 South Lyon St
Prince George, BC V2M 1T3
Phone: 250-562-8922
Fax: 250-562-8927