

Inweld 80S-B2

AWS A5.28 ER80S-B2

Chemical Composition of Inweld 80S-B2

Fe	C	Cr	Ni	Mo	Mn	Si	P	S	V	Other
Balance	0.07	1.20- 1.50	0.20	0.40- 0.65	0.40- 0.70	0.40- 0.70	0.025	0.025	---	0.50

Single values are maximum unless otherwise specified.

Description and Applications

ER80S-B2 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. All transfer modes of the GMAW process may be used. Careful control of preheat, inter-pass temperatures, and post heat is essential to avoid cracking. ER80S-B2 is classified after post weld heat treatment. Special care must be used when using it in the as-welded condition due to higher strength levels.

Typical Weld Metal Properties

	<u>AWS Spec</u>
Tensile Strength:	80,000 psi
Yield Strength:	68,000 psi
Elongation:	19%

Recommended Parameters

GMAW Spray

<u>Wire Diameter</u>	<u>Voltage</u>	<u>Amperage</u>
0.030"	24-28	135-230
0.035"	24-28	165-300
0.045"	24-30	200-375
1/16"	24-32	275-500
3/32"	24-33	300-600

GTAW

<u>Material</u>	<u>Tungsten Dia.</u>	<u>Amperage</u>	<u>Argon (CFH)</u>
1/16"	1/16"	100-140	20
3/32"	1/16"	100-160	20
1/8"	3/32"	125-200	20
3/16"	3/32"	150-250	25
1/4"	1/8"	150-250	25

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