Inweld
Welding Alloys and Supplies

Datasheet

Chemical Composition of AWS/ASME A5.18 ER70S-2

Fe	C	Cr	Ni	Mo	Mn	Si	P	S	Ni	V	Ti	Zr	Al
Balance	0.07	0.15	0.15	0.15	0.9 - 1.4	0.4 - 0.7	0.025	0.035	0.15	0.03	0.05 - 0.15	0.02 - 0.12	0.05 - 0.15

Single values are maximum unless otherwise specified.

Description and Application

Inweld 70S-2 is used primarily for single-pass welding of killed, semi-killed, and rimmed steels, but may also be used for some multi-pass applications. Because of the added de-oxidants, Inweld 70S-2 can be used for welding steels that have a rusty or dirty surface, with a possible sacrifice of weld quality depending on the condition of the surface. Typical specifications for these steels are ASTM A36, A285-C, A515-55 and A516-70, which have UNS numbers K02600, K02801, K02001, and K02700, respectively.

Typical Weld Metal Properties

	AWS Spec
Tensile Strength:	70,000 psi
Yield Strength:	58,000 psi
Elongation:	22%

Recommended Parameters

GMAW (DC Reverse Polarity) Electrode Positive Spray Transfer

Wire Diameter	Voltage	Amperage	Wire Feed IPM
0.023”	23-27	85-170	360-620
0.030”	24-28	135-230	390-670
0.035”	24-28	165-300	360-520
0.045”	24-30	200-375	210-360
1/16”	24-32	270-500	75-125

Material	Tungsten Dia.	Filler Wire Size	Amperage	Argon (CFH)
1/16”	1/16”	1/16”	100-140	20
3/32”	1/16”	1/16”	100-160	20
1/8”	3/32”	1/16”	125-200	20
3/16”	3/32”	3/32”	150-250	25
1/4"	1/8”	1/8”	150-250	25