

Inweld 502 (80S-B6)

AWS A5.9 ER502 (ER80S-B6)

Chemical Composition of Inweld 502 (80S-B6)

Fe	C	Cr	Ni	Mo	Mn	Si	P	S	N	Cu	Other
Balance	0.10	4.6- 6.0	0.6	0.45- 0.65	0.60	0.50	0.025	0.025	---	0.35	0.50

Single values are maximum unless otherwise specified.

Description and Applications

The nominal composition (wt.%) of this classification is 5 Cr and 0.50 Mo. It is used for welding material of similar composition, usually in the form of pipe or tubing. The alloy is an air-hardening material, and therefore, when welding with this filler metal, pre-heating and post-weld heat treatment is required. NOTE: Mechanical properties listed below reflect utilization of a post-weld heat treatment between 1550°F and 1600°F for two hours.

Typical Weld Metal Properties

	<u>AWS Spec</u>
Tensile Strength:	75,000 psi
Yield Strength:	60,000 psi
Elongation:	32%

Recommended Parameters

GMAW

<u>Wire Diameter</u>	<u>Voltage</u>	<u>Amperage</u>
0.035"	14-20	90-160
0.045"	16-20	120-200
1/16"	---	---

GTAW

<u>Wire Diameter</u>	<u>Voltage</u>	<u>Amperage</u>
1/16"	7-13	50-120
3/32"	10-16	120-200
1/8"	12-18	150-220

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