

Inweld 502-16

AWS A5.4 E502-16

Chemical Composition of Inweld 502-16

Fe	C	Cr	Ni	Mo	Mn	Si	P	S	N	Cu
Balance	0.10	4.0-6.0	0.4	0.45- 0.65	1.0	0.90	0.04	0.03	---	0.75

Single values are maximum unless otherwise specified.

Description and Applications

For welding chrome-moly pipes or tubing of similar analysis (AISI 501 and 502), containing 5% Chromium and 1/2% Molybdenum. The weld deposits are air-hardening, so preheat and post-heat treatment is required to obtain maximum results. This will relieve stress and “temper” the weld metal as well at the adjacent heat affected zone. This also increases ductility and notch toughness. Commonly used for quench and tempered high tensile steel and case hardening steels containing 2-3% Chromium in oil refineries, chemical plants, power generation facilities or wherever high temperature resistance to corrosion and oxidation is required. Preheat at 500-650°F and post-heat at 1350-1450°F for approximately 2 hours, then allow to air cool.

Typical Weld Metal Properties

	<u>AWS Spec</u>
Tensile Strength:	60,000 psi
Yield Strength:	50,000psi
Elongation:	20%

Recommended Parameters

SMAW (DCEP – Electrode+)

<u>Wire Diameter</u>	<u>Voltage</u>	<u>Flat Amperage</u>	<u>Vertical & Overhead Amperage</u>
3/32”		70-85	65-75
1/8”		85-110	80-90
5/32”		110-140	100-120
3/16”		120-160	110-130

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