

Inweld 316

AWS A5.9 ER316

Chemical Composition of Inweld 316

Fe	C	Cr	Ni	Mo	Mn	Si	P	S	N	Cu	Other
Balance	0.08	18.0- 20.0	11.0- 14.0	2.0- 3.0	1.0- 2.5	0.30- 0.65	0.03	0.03	---	0.75	---

Single values are maximum unless otherwise specified.

Description and Applications

Inweld ER316 is designed for use with type 316 stainless steel. The restricted range of carbon and presence of molybdenum ensure good creep resistance at elevated temperatures. ER316 is suitable for cryogenic applications. ER316 has Low and High Carbon options: Inweld ER316 reduces the possibility of inter-granular chromium carbide precipitation and thereby increases the resistance to inter-granular corrosion without the use of stabilizers such as columbium (niobium) or titanium.

Typical Weld Metal Properties

	<u>AWS Spec</u>
Tensile Strength:	88,000 psi
Yield Strength:	58,000 psi
Elongation:	34%

Recommended Parameters

GMAW

<u>Wire Diameter</u>	<u>Voltage</u>	<u>Amperage</u>	<u>Wire Feed IPM</u>
0.030"	16-20	40-120	13-26
0.035"	16-22	60-140	13-26

<u>Wire Diameter</u>	<u>Voltage</u>	<u>Amperage</u>
0.035"	12-15	60-90
0.045"	13-16	80-110
1/16"	14-16	90-130
3/32"	15-20	120-175

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