Inweld 316LSI

AWS A5.9 ER316LSI

Chemical Composition of Inweld

C	Cr	Ni	Mo	Mn	Si	P	S	N	Cu	Fe
0.03	18.0-20.0	11.0-14.0	2.0-3.0	1.0-2.5	0.65-1.00	0.03	0.03	---	0.75	Balance

Single values are maximum unless otherwise specified.

Description and Applications

This classification is the same as ER316L, except for the higher silicon content. This improves the usability of the filler metal in the gas metal arc welding process. If the dilution by the base betal produces a low ferrite or fully austenitic weld, the crack sensitivity is somewhat higher than that of lower silicon content weld metal.

Typical Weld Metal Properties

Tensile Strength:	88,000psi
Yield Strength:	58,000psi
Elongation:	37%
Reductionof Area:	68%
Charpy V:	95 ft./lb. room temp.

Recommended Parameters

GMAW (DCEP – Electrode+) short circuit transfer: 98% Argon 2% Oxygen; Spray transfer: Trimix 90% Helium, 7.5% Argon and 2.5% Carbon Dioxide.

Wire Diameter	Voltage	Amperage
.030	24-28	160-225
.035	24-29	180-300
.045	24-30	200-450
1/16	24-32	225-500
3/32	24-32	250-600

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