

TIG Wires
AWS ER312
T-312

AWS ER316
T-316

Stainless Steel
AWS ER316L
T-316L

Typical Applications

Welding of stainless steel of the 29%Cr-9%Ni types. Wire is widely used for joining of dissimilar metals such as carbon steel to stainless steel.

Welding of stainless steel of 18%Cr-12%Ni-Mo types (STS316). The low ferrite content improves the crack-resistance and corrosion resistance.

Welding of austenitic stainless alloys of the 18%Cr-12%Ni-Mo low carbon types. The alloy has particularly good corrosion-resistance and heat-resistance.

Characteristics Of Usage

1. Type 312 was originally designed to join high temperature heat resistant alloys as well as strength high alloy steels to themselves and some dissimilar metals
2. 312 can also be used to join some abrasion resistant steels.

Designed for use on type 316 austenitic stainless steels.

Designed for use on type 316 L and 316 grade austenitic stainless steels.

Weld Metal Composition

Carbon	0.10 %
Silicon	0.43 %
Manganese	1.73 %
Nickel	8.7 %
Chromium	30.4 %

Carbon	0.04 %
Silicon	0.40 %
Manganese	1.62 %
Nickel	12.10 %
Chromium	18.40 %
Molybdenum	2.30 %

Carbon	0.02 %
Silicon	0.39 %
Manganese	1.85 %
Nickel	12.20 %
Chromium	18.70 %
Molybdenum	2.30 %

Mechanical Properties

SG	Ar
T-S (psi)	114,580
EI	25 %
IV (J)	-

SG	Ar
T-S (psi)	82,672
EI	40 %
IV (J)	32 °F:140 -321 °F:50

SG	Ar
T-S (psi)	81,221
EI	40 %
IV (J)	32 °F:150 -321 °F:50

Available Sizes / Rec. Parameters

Dia in (mm)	Length in (mm)	Weight lb(kg)
.045 (1.2)	39 (1000)	11 (5)
1/16 (1.6)	39 (1000)	11 (5)
3/32 (2.0)	39 (1000)	11 (5)
1/8 (3.2)	39 (1000)	11 (5)
5/32 (4.0)	39 (1000)	11 (5)

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Packaging

10# (5 kg) carton

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Detailed Packaging Information

Detailed Packaging Information

Detailed Packaging Information

Welding Positions

All Welding Positions

All Welding Positions

All Welding Positions

Approved

ABS, BV, LR, DNV, KR, TUV

