

# **GRADE ER 308L**

Stainless Steel filler wire suitable for welding 18/8 (304) austenitic stainless steels, providing good corrosion and wear resistance.

# TYPICAL WELDMETAL COMPOSITION:

Element	Percent
С	0.03
Si	0.4
Mn	1.5
Cr	20
Ni	10

AWS	ER-308L
Process	TIG & Gas
Melting Point	1440 °C.
Ultimate Tensile Strength	650N/mm2
Hardness	180 BHN
Recommended Flux	Stainless Steel

# **GRADE ER 309L**

Stainless Steel filler wire containing higher Chromium & Nickel, suitable for joining materials of similar composition and also dissimilar stainless steels.

#### TYPICAL WELDMETAL COMPOSITION:

Element	Percent
С	0.03
Si	0.4
Mn	1.5
Cr	25
Ni	13

AWS	ER-309L
Process	TIG & Gas
Melting Point	1440 °C.
Ultimate Tensile Strength	650N/mm2
Hardness	180 BHN
Recommended Flux	Stainless Steel

# **GRADE ER 309Mo**

Stainless Steel filler wire suitable for welding dissimilar metals such as stainless steel containing Molybdenum to carbon steel, for welding ASTM 309 Mo steel. Also suitable for welding difficult to weld steels.

# TYPICAL WELDMETAL COMPOSITION:

Element	Percent
С	0.09
Si	0.60
Mn	1.75
Cr	22
Ni	14
Мо	3

AWS	ER-309Mo
Process	TIG & Gas
Melting Point	1440 °C.
Ultimate Tensile Strength	650N/mm2
Hardness	180 BHN
Recommended Flux	Stainless Steel

# **GRADE ER 310**

25/20 type Stainless Steel filler wire suitable for heat resistant, austenitic stainless steels, where application is subject to high temperatures.

# TYPICAL WELDMETAL COMPOSITION:

Element	Percent
С	0.1
Si	0.4
Mn	1.5
Cr	26
Ni	21

AWS	ER-310
Process	TIG & Gas
Melting Point	1440 °C.
Ultimate Tensile Strength	650N/mm2
Hardness	180 BHN
Recommended Flux	Stainless Steel



# **GRADE ER 310H**

25/20 type Stainless Steel filler wire suitable for welding high alloy castings for greater strength at elevated temperatures.

#### TYPICAL WELDMETAL COMPOSITION:

Element	Percent
С	0.15
Si	0.6
Mn	2.0
Cr	25
Ni	20

AWS	ER-310H
Process	TIG & Gas
Melting Point	1440 °C.
Ultimate Tensile Strength	650N/mm2
Hardness	180 BHN
Recommended Flux	Stainless Steel

# **GRADE ER 310L**

25/20 type Stainless Steel filler wire with low carbon suitable for heat resistant, austenitic stainless steels, where application is subject to high temperatures.

#### TYPICAL WELDMETAL COMPOSITION:

Element	Percent
С	0.02
Si	0.4
Mn	1.5
Cr	26
Ni	21

AWS	ER-310L
Process	TIG & Gas
Melting Point	1440 °C.
Ultimate Tensile Strength	650N/mm2
Hardness	180 BHN
Recommended Flux	Stainless Steel

# **GRADE ER 312**

Stainless Steel filler wire suitable for welding cast alloys of similar composition, dissimilar steels and steels of unknown composition.

# **TYPICAL WELDMETAL COMPOSITION:**

Element	Percent
С	0.1
Si	0.5
Mn	1.5
Cr	30
Ni	9

AWS	ER-312
Process	TIG & Gas
Melting Point	1440 °C.
Ultimate Tensile Strength	650N/mm2
Hardness	180 BHN
Recommended Flux	Stainless Steel

# **GRADE ER 316L**

A molybdenum bearing Stainless Steel filler wire with low carbon content. It is corrosion resistant and suitable for welding molybdenum bearing stainless steels.

Typical applications for this acid resistant wire include the nuclear and chemical engineering industries.

# TYPICAL WELDMETAL COMPOSITION:

Element	Percent
С	0.02
Si	0.4
Mn	1.5
Cr	19
Ni	12
Мо	2

AWS	ER-316L
Process	TIG & Gas
Melting Point	1440 °C.
Ultimate Tensile Strength	650N/mm2
Hardness	180 BHN
Recommended Flux	Stainless Steel



# **GRADE ER 317L**

Stainless Steel filler wire 18/13/3 type with low carbon suitable for joining stainless steel to lower alloy and carbon steels and welding when heat treatment after welding is not possible.

#### TYPICAL WELDMETAL COMPOSITION:

Element	Percent
С	0.03
Si	0.4
Mn	1.5
Cr	18
Ni	13
Мо	3

AWS	ER-317L
Process	TIG & Gas
Melting Point	1440 °C.
Ultimate Tensile Strength	650N/mm2
Hardness	180 BHN
Recommended Flux	Stainless Steel

# **GRADE ER 318**

Stainless Steel filler wire , Cg stabilized to prevent weld decay, giving excellent corrosion resistance, suitable for use on Cb or Ti stabilized 18/8 Mo steels such as 317 and 318 and when the weld is subjected to temperature more than  $800^{\circ}\text{C}..$  Typical applications include bleaching, dyeing equipments and pickling plants :

#### TYPICAL WELDMETAL COMPOSITION:

Element	Percent
С	0.06
Si	0.4
Mn	1.5
Cr	18
Ni	14
Мо	2.0
Cb	0.6

AWS	ER-318
Process	TIG & Gas
Melting Point	1440 °C.
Ultimate Tensile Strength	650N/mm2
Hardness	180 BHN
Recommended Flux	Stainless Steel

# **GRADE ER 318L**

Stainless Steel filler wire with low carbon, columbium stabilized to prevent weld decay, giving excellent corrosion resistance, suitable for use on Niobium or Titanium stabilized 18/8/Mo steels such as 317 and 318 and where the weld is subjected to temperature more than 800°C. Typical applications include bleaching equipments, dyeing equipments and pickling plants.

# TYPICAL WELDMETAL COMPOSITION:

Element	Percent
С	0.02
Si	0.4
Mn	1.5
Cr	18
Ni	14
Мо	2.0
Cb	0.6

AWS	ER-318L
Process	TIG & Gas
Melting Point	1440 °C.
Ultimate Tensile Strength	650N/mm2
Hardness	180 BHN
Recommended Flux	Stainless Steel

#### **GRADE ER 330**

Stainless Steel filler wire suitable for welding castings and wrought alloys of similar composition.

# TYPICAL WELDMETAL COMPOSITION:

Element	Percent
С	0.15
Si	0.50
Mn	1.75
Cr	16
Ni	35

AWS	ER-330
Process	TIG & Gas
Melting Point	1440 °C.
Ultimate Tensile Strength	650N/mm2
Hardness	180 BHN
Recommended Flux	Stainless Steel



# **GRADE ER 347**

Stainless Steel filler wire, niobium stabilized to prevent weld decay, giving excellent corrosion resistance. Suitable for use on 18/8 type stainless steel, Nb and Ti stabilized, such as 304, 321 and where the weld is subjected to temperatures above  $400^{\circ}\text{C}$ .

Typical applications include aircraft fabrication, stainless steel pipelines, tanks, fittings and hospital equipment.

#### TYPICAL WELDMETAL COMPOSITION:

Element	Percent
С	0.07
Si	0.4
Mn	1.5
Cr	20
Ni	10
Nb	0.6

AWS	ER-347
Process	TIG & Gas
Melting Point	1440 °C.
Ultimate Tensile Strength	650N/mm2
Hardness	180 BHN
Recommended Flux	Stainless Steel

All wires are available in D 300 Plastic Spools 12.50 / 15.00 Kg each for diameter 0.8mm to 1.2mm and in cut lengths of 1000 mm in paper cartons of 5 Kg each for higher sizes duly embossed by grade for easy identification.



# **TIG WELDING WIRE**

#### **ASTRALOY 70S-2**

Carbon Steel Filler Rods AWS A 5.18 ER 70S-2

#### **CHARACTERISTICS:**

High quality carbon steel alloy for gas shielded arc welding. It gives a porosity free tough deposit.

#### **TYPICAL MECHANICAL PROPERTIES:**

UTS	70 Kgf/mm2	
Elongation	22%	
Impact Strength	27J@-29C	

