

## Stainless Steel Bare Wire

Alloy:HIL308LClass : ER308LConforms to Certification : AWS A5.9ASME SFA A5.9Alloy ER308L Welding data

Weld Process : Used for Mig, Tig &amp; Submerged arc

AWS Chemical Composition Requirements

C=0.030max	P=0.030max
Si=0.30-0.65	S-0.030max
Mn=1.0-2.50	Mo=0.75max
Cr=19.50-22.0	Cu=0.75max
Ni=9.0-11.0	

Type of Filler wireGMAW " Mig Filler wire"**Diameter Range**

0.80-1.6mm

0.030"-1/16"

GTAW " Tig Process "**Diameter Range**

1.60-4.00mm

1/16"-5/32"

Deposited Chemical Composition % (Typical)

C = 0.02	Si = 0.32	Mn = 1.7
P = 0.011	S = 0.009	Cr = 20
Ni = 10		

Submerged Arc Welding**Diameter Range**

1.60-4.00mm

1/16"-5/32"

Deposited All Weld Metal Properties

Data is typical for ER308L weld metal deposited by mig using Argon+2% oxygen and Tig using 100% Argon as the shielding gas. Data on Sub-arc is not presented, as sub-arc is dependent on the type of flux used.

**Mechanical Properties (R.T.)**

Yield strength	390 MPa
Tensile strength	600 MPa
Elongation	38%
Reduction of area	60%

Application

ER308L has the same analysis as type 308 except the carbon content has been held to a maximum of .03% to reduce the possibility of inter-granular carbide precipitation. Ideal for welding Types 304L, 321 and 347 stainless steel. This is a suitable wire for applications at cryogenic temperatures.

