

Stainless Steel Bare Wire

Alloy:HIL420**Class : ER420****Conforms to Certification : AWS A5.9****ASME SFA A5.9****Alloy ER420 Welding data****Weld Process : Used for Mig, Tig & Submerged arc****AWS Chemical Composition Requirements**

C=0.25-0.40	P=0.030max
Si=0.50 max	S-0.030max
Mn=0.60max	Mo=0.75max
Cr=12.0-14.0	Cu=0.75max
Ni=0.60max	

Type of Filler wire**GMAW " 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=0.30	Si = 0.45	Mn = 0.46
P=0.013	S = 0.007	Cr = 13.60
Ni =0.25	Mo=0.10	

Submerged Arc Welding**Diameter Range**

1.60-4.00mm

1/16"-5/32"

Deposited All Weld Metal Properties

Data is typical for ER420 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	835MPa
Tensile strength	990MPa
Elongation	40%

Application

This alloy is often used for surfacing application which call for suprior resistance to abrasion . It require preheat and inter-pass tempratures of not less than 200°C, followed by slow cooling . Post weld heat treatment is used to temper the weld deposit.

