

Steel Wires Bare

Alloy: WW70S-3
Class: ER70S-3

Conforms to Certification: AWS A5.18
ASME SFA A5.18

Alloy: ER70S-3
Weld Process: Mig and Tig Welding Process

AWS Chemical Composition Requirements

C = 0.06 – 0.15	Ni = 0.15 max
Mn = 0.90 – 1.40	Cr = 0.15 max
Si = 0.45 – 0.75	Mo = 0.15 max
P = 0.025 max	V = 0.03 max
S = 0.035 max	Cu = 0.50 max

Recommended Weld Parameters

SHORT ARC

<u>Diameter</u>	<u>Volts</u>	<u>Amps</u>	<u>IPM</u>
.030	16 – 18	75 – 125	176 – 324
.035	15 – 18	100 – 160	132 – 228
.045	17 – 18	160 – 120	149 - 208

Deposited Chemical Composition % (Typical)

C = 0.07	P = 0.012	Si = 0.52
Mn = 1.19	S = 0.022	Cu = 0.40

SPRAY ARC

<u>Diameter</u>	<u>Volts</u>	<u>Amps</u>	<u>IPM</u>
.030	26 – 28	200	560
.035	27 – 29	250	504
.045	28 – 31	265	336
.052	29 – 31	300 – 340	280 – 350
1/16	30 – 36	350 – 400	220 - 280

Deposited All Weld Metal Properties %

As-Welded

Tensile Strength	75,500psi
Yield Strength	61,500psi
Elongation	23%

Application

Type ER70S-3 is a welding wire for tig and mig welding applications.

For Mig welding use Carbon Dioxide or Argon + Co₂ or Argon + 2% Oxygen as shielding gases.

For Tig welding use 100% Argon.

Deposited Charpy-V-Notch Impact Properties %

35 ft. lbs. (at 0°F)

