

Steel Wires Bare

Alloy: WW70S-6  
 Class: ER70S-6

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

Alloy: ER70S-6  
 Weld Process: Mig and Tig Welding Process

AWS Chemical Composition Requirements

C = 0.06 – 0.15    Ni = 0.15 max  
 Mn = 1.40 – 1.85    Cr = 0.15 max  
 Si = 0.80 – 1.15    Mo = 0.15 max  
 P = 0.025 max      V = 0.03 max  
 S = 0.035 max      Cu = 0.50 max

Recommended Weld ParametersSHORT 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 = 0.09              P = 0.012              Si = 0.95  
 Mn = 1.65            S = 0.018              Cu = 0.35

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      78,000psi  
 Yield Strength        64,500psi  
 Elongation             24%

Application

Type ER70S-6 is a wire with higher levels of Deoxidizers (Mn & Si) compared to other carbon steel wires. This wire is suitable for welding of steels with moderate amounts of scale or rust.

For Mig welding use Carbon Dioxide or Argon + Co<sub>2</sub> or Argon + 2% Oxygen as shielding gases.

For Tig welding use 100% Argon.

Deposited Charpy-V-Notch Impact Properties %

45 ft. lbs. (at -20°F)

