Alloy: COREWELD 70S-2 | Class: ER70S-2

ER70S-2 • Weld Processes: MIG & TIG

CERTIFIED TO
AWS A5.18
ASME SFA A5.18

AWS CHEMICAL COMPOSITION REQUIREMENTS | DEPOSITED CHEMICAL COMPOSITION % (TYPICAL)

AWS REQUIREMENT (%)		TYPICAL DEPOSIT (%)	
C	0.07 max	C	0.05
Ni	0.15 max	P	0.012
Cu	0.50 max	Al	0.09
Mn	0.90 – 1.40	Mn	1.15
Cr	0.15 max	Ti	0.06
Ti	0.05 – 0.15	Cu	0.35
Si	0.40 – 0.70	Si	0.45
Mo	0.15 max	S	0.012
Zr	0.02 – 0.12	Zr	0.04
P	0.025 max		
V	0.03 max		
Al	0.05 – 0.15		
S	0.035 max		

DEPOSITED ALL WELD METAL PROPERTIES % (AS-WELDED) | CHARPY-V-NOTCH IMPACT PROPERTIES %

MECHANICAL PROPERTY		CHARPY-V-NOTCH IMPACT	
Tensile Strength	74,800 psi	At -20°F	45 ft. lbs.
Yield Strength	62,000 psi		
Elongation	24%		

APPLICATION

COREWELD 70S-2 (Type ER70S-2) is a triple deoxidized steel welding wire for TIG and MIG welding applications. For MIG welding use Carbon Dioxide or Argon + CO_2 or Argon + 2% Oxygen as shielding gases. For TIG welding use 100% Argon.

RECOMMENDED WELD PARAMETERS

DIAMETER OF WIRE	DIAMETER OF WIRE (MM)	VOLTS (V)	AMPS (A)	IPM
Short Arc				
.030 in	0.80	16–18	75–125	176–324
.035 in	0.90	15–18	100–160	132–228
.045 in	1.20	17–18	160–220	149–208
Spray Arc				
.030 in	0.80	26–28	200	560
.035 in	0.90	27–29	250	504
.045 in	1.20	28–31	265	336
.052 in	1.30	29–31	300–340	280–350
1/16 in	1.60	30–36	350–400	220–280

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