

ER70S-3

Conformance

AWS A5.18 ER70S-3

Typical Application

• Used for general steel fabrication: automotive structures, small trailers, roof joist, railcar repair, exercise equipment, furniture and other types of mild steels.

Mechanical Properties

Tensile Strength (MPa)	Yield Strength (MPa)	Elongation (%)	Impact Energy (J)	Impact Temperature (°C)
550	450	26	116, 108, 110	-20

Chemical Composition %

C	Mn	Si	S	P	Ni	Cr	Mo	V	Cu
0.008	1.31	0.58	0.008	0.012	0.018	0.020	0.020	0.011	0.11

Reference

Shielding Gas	Ar	
Gas Flow Rate (L/min)	7~12	12~15
Current(A)	100~200	200~300

ER70S-6

Conformance

AWS A5.18 ER70S-6

Typical Application

• Used for all-position manual tungsten argon arc backing weld and arc welding on pipelines, and both can produce satisfactory welded joints. It can be used for welding carbon steel and some low-alloy steel.

Mechanical Properties

Tensile Strength (MPa)	Yield Strength (MPa)	Elongation (%)	Impact Energy (J)	Impact Temperature (°C)
550	450	29	160	-30

Chemical Composition %

C	Mn	Si	P	S	Ni	Cr	Mo	Cu	V
0.08	1.49	0.84	0.018	0.84	0.019	0.032	0.004	0.08	0.007

Reference

Shielding Gas	Ar	
Gas Flow Rate (L/min)	9~14	14~18
Current(A)	100~200	200~300