



ER70S6

Certifications:

AWS A5.18
ASME SFA A5.18

Features

- Good tolerance to rust, scale, and other plate contaminants.
- Reduced flaking.
- Improved weld performance.

Applications

- Suitable for welding steels with moderate amounts of scale or rust.
- Used for pipe fabrication, automotive structures, construction equipment.

Diameters & Packages

Diameter	2 lb	11 lb	33 lb	44 lb	60 lb	500 lb	550 lb	1000 lb	36 in. electrode
0.023	✓	✓	✓						
0.030	✓	✓	✓						
0.035	✓	✓	✓	✓	✓		✓	✓	✓
0.045	✓	✓	✓	✓	✓		✓	✓	✓
1/16			✓	✓		✓			✓
0.052				✓			✓	✓	
5/32									✓
3/32									✓
3/16									✓

Technical Specifications

Typical Chemical Composition:

Chemical	C	Mn	Si	P	S
	0.06-0.15	1.40-1.85	0.80-1.15	0.025 max	0.035 max

Chemical	Ni	Cr	Mo	V	Cu
	0.15 max	0.15 max	0.15 max	0.03 max	0.50 max

Recommended Weld Parameters:

Short Arc Welding			
Diameter	Volts	Amps	IPM
0.030	16-18	75-125	176-324
0.035	15-18	100-160	132-228
0.045	17-18	100-220	149-208
Spray Arc Welding			
Diameter	Volts	Amps	IPM
0.030	26-28	200	560
0.035	27-29	250	504
0.045	28-31	265	336
0.052	29-31	300-340	280-350
1/16	30-36	350-400	220-280

Typical Mechanical Properties:

Tensile Strength	Yield Strength	Percent Elongation
78,000 psi	65,500 psi	24%