



ER70S-2

Certifications:

AWS A5.18
ASME SFA A5.18

Features

- Great puddle control
- Clean welds, minimal “smut”
- Good bead wetting

Applications

- ER70S-2 is a triple deoxidized steel welding wire used for TIG and MIG welding.
- Can be used on pipes, structural steel work, and offshore drilling rigs.

Diameters & Packages

| Diameter | 2 lb Spool | 11 lb Spool | 33 lb Spool | 36" Stick Electrodes |
|----------|------------|-------------|-------------|----------------------|
| 0.030" | ✓ | | | ✓ |
| 0.035" | ✓ | ✓ | ✓ | ✓ |
| 0.045" | | | ✓ | ✓ |
| 1/8" | | | | ✓ |
| 3/16" | | | | ✓ |
| 3/32" | | | | ✓ |
| 5/32" | | | | ✓ |

Technical Specifications

Shielding gas:

- MIG Welding: carbon dioxide or Argon+CO2 or Argon+2% Oxygen
- TIG Welding: 100% Argon

Typical Chemical Composition:

| Chemical | C | Mn | Si | P | S | Ni | Al |
|----------|----------|-----------|-----------|-----------|-----------|----------|-----------|
| Typical | 0.07 max | 0.90-1.40 | 0.40-0.70 | 0.025 max | 0.035 max | 0.15 max | 0.05-0.15 |

| Chemical | Cr | Mo | V | Cu | Ti | Zr | |
|----------|----------|----------|----------|----------|-----------|-----------|--|
| Typical | 0.15 max | 0.15 max | 0.03 max | 0.50 max | 0.05-0.15 | 0.02-0.12 | |

Recommended Weld Parameters:

Short Arc

| Diameter | Volts | Amps | IPM |
|----------|-------|---------|---------|
| 0.030 | 16-18 | 75-125 | 176-324 |
| 0.035 | 15-18 | 100-160 | 132-228 |
| 0.045 | 17-18 | 160-220 | 149-208 |

Spray Arc

| | | | |
|-------|-------|---------|---------|
| 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 |

Deposited All Weld Metal Properties % (As-Welded):

| Tensile Strength | Yield Strength | Elongation |
|------------------|----------------|------------|
| 74,800psi | 62,000psi | 24% |