



71T-9

Specifications / Certifications:

AWS A5.20 E71T-9C/9M

Features

- Excellent mechanical properties
- Easy slag removal
- Low spatter
- Smooth bead surface
- High x-ray safety

Applications

- High tensile steel
- Ships
- Vehicles
- Bridges
- Machinery

Technical Specifications

- Use 100% CO₂ gas or Ar+20-25% CO₂ gas.
- The optimum flow of CO₂ for shielding is 20-25 l/min.
- Protect the weld with a screen to prevent blowholes caused by wind where the wind velocity is 6.56 ft/sec (2m/sec) and more.
- Keep the distance between tip & base metal at 0.59-0.98 in (15-25 mm).
- For multi-layer welding, keep preheat and inter-pass temperature below 302°F (150°C)

Recommended GMAW Weld Parameters:

| Flat | | |
|-------------------|----------|--------|
| Diameter | Amps | Volts |
| 0.045" | 180-340A | 24-36V |
| 0.052" | 200-360A | 26-38V |
| 0.062" | 200-420A | 26-42V |
| Horizontal Fillet | | |
| Diameter | Amps | Volts |
| 0.045" | 180-340A | 24-36V |
| 0.052" | 200-360A | 26-38V |
| 0.062" | 200-420A | 26-42V |
| Vertical Up | | |
| Diameter | Amps | Volts |
| 0.045" | 140-260A | 24-30V |
| 0.052" | 160-280A | 26-30V |
| 0.062" | 200-300A | 26-32V |

Typical Chemical Composition:

| Chemical | C | Mn | Si | P | S | Cu |
|----------|-------------|-------------|-------------|-------------|-------------|-------------|
| 71T-9 | 0.03 | 1.24 | 0.38 | 0.014 | 0.009 | 0.01 |
| AWS | 0.12 max | 1.75 max | 0.90 max | 0.03 max | 0.03 max | 0.35 max |

Typical Mechanical Properties:

| | Tensile Strength (psi) | Yield Strength (psi) | Elongation | Impact Value (J) | Heat Treatment |
|-------|------------------------|----------------------|------------|------------------|--------------------|
| AWS | 71,068-97,175 psi | 56,564 min psi | 22% min | 27 min | |
| | 84,702 psi | 75,419 psi | 29% | 130 | AW |
| 71T-9 | 79,770 psi | 71,068 psi | 31% | 110 | PWHT (620°C X 2Hr) |
| | | | | | |

Diameters & Packages

| Diameter | Lbs | Pkg |
|----------------|-------|-------|
| 0.045" Unbaked | 3/64" | 33 |
| | | Spool |
| | | 44 |
| 0.045" Baked | 3/64" | 44 |
| 0.062" Unbaked | 1/16" | 44 |
| | | Spool |

Welding positions

