

SC-91

Type : Rutile

Conformances

AWS A5.36M/ ASME SFA5.36M E621T1-C1A0-G
(AWS A5.29/ ASME SFA5.29 E91T1-GC)
JIS Z3313 T57 2 T1-1 C A-N1 H10
EN ISO 17632-A-T 50 2 1Ni P C 1

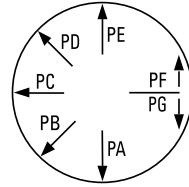
Applications

- Structural fabrication
- Steel industry

Features

- Smooth and stable arc with a fast freezing slag
- Pre-heat recommended to avoid cold crack
- High-tensile steel (HSB 600)

Welding Position



Current

DC +

Shielding Gas

100% CO₂

Diameter / Packaging

| Diameter mm (in) | Spool | | | Pac | | |
|---------------------|-------------|--------------|--------------|----------------|----------------|----------------|
| | 5kg (11lbs) | 15kg (33lbs) | 20kg (44lbs) | 100kg (221lbs) | 200kg (441lbs) | 250kg (551lbs) |
| 1.2 (0.045) | ✓ | ✓ | ✓ | | | |
| 1.4 (0.052) | ✓ | ✓ | ✓ | | | |
| 1.6 (1/16) | ✓ | ✓ | ✓ | | | |

Typical Chemical Composition of All-Weld Metal (%)

| C | Si | Mn | P | S | Ni |
|------|------|------|-------|-------|------|
| 0.06 | 0.55 | 1.20 | 0.013 | 0.013 | 0.85 |

Typical Mechanical Properties of All-Weld Metal

| YS MPa(lbs/in ²) | TS MPa(lbs/in ²) | EL (%) | Temp °C(°F) | CVN-Impact Value J (ft-lbs) |
|---------------------------------|---------------------------------|-----------|--------------------|--------------------------------|
| 645 (93,600) | 660 (95,800) | 24.0 | 0 (32) -20 (-4) | 100 (74) 70 (52) |

Typical Welding Parameters

| Diameter, Polarity Shielding Gas | CTWD mm (in) | Wire Feed Speed m/min (in/min) | Amp. (A) | Volt. (V) | Deposition Rate kg/hr (lb/hr) | Efficiency (%) | |
|-------------------------------------|-----------------|-----------------------------------|-------------|--------------|----------------------------------|-------------------|-------|
| 1.2mm (0.045 in) DC+ | | | | | | | |
| 100% CO ₂ | 25 (1) | All Position | | | | | 86-88 |
| | | 4.4 (175) | 110-140 | 23-28 | 1.6 (3.5) | | |
| | | 5.1 (200) | 120-150 | 24-29 | 1.8 (4.0) | | |
| | | 6.4 (250) | 130-160 | 25-30 | 2.3 (5.0) | | |
| | | 7.6 (300) | 160-190 | 25-30 | 2.7 (6.0) | | |
| | | 8.9 (350) | 170-200 | 26-31 | 3.2 (7.0) | | |
| | | 9.5 (375) | 190-220 | 26-31 | 3.4 (7.5) | | |
| | | 10.8 (425) | 210-240 | 27-32 | 3.8 (8.5) | | |
| | | Flat & Horizontal | | | | | |
| | | 12.1 (475) | 230-260 | 28-33 | 4.9 (10.8) | | |
| 12.7 (500) | 240-270 | 29-34 | 5.2 (11.4) | | | | |
| 1.4mm (0.052 in) DC+ | | | | | | | |
| 100% CO ₂ | 25 (1) | All Position | | | | | 86-88 |
| | | 3.8 (150) | 120-150 | 23-28 | 1.8 (3.9) | | |
| | | 4.7 (180) | 130-160 | 24-29 | 2.2 (4.8) | | |
| | | 5.7 (225) | 160-190 | 24-29 | 2.7 (5.9) | | |
| | | 6.4 (250) | 180-210 | 25-30 | 2.9 (6.5) | | |
| | | 6.9 (275) | 200-230 | 25-30 | 3.2 (7.2) | | |
| | | 7.6 (300) | 220-250 | 26-31 | 3.5 (7.8) | | |
| | | Flat & Horizontal | | | | | |
| | | 8.5 (335) | 240-270 | 26-31 | 4.0 (8.7) | | |
| | | 9.5 (375) | 260-290 | 27-32 | 4.4 (9.8) | | |
| 10.2 (400) | 280-310 | 27-34 | 4.7 (10.4) | | | | |
| 1.6mm (1/16 in) DC+ | | | | | | | |
| 100% CO ₂ | 25 (1) | All Position | | | | | 86-88 |
| | | 3.8 (150) | 170-200 | 24-29 | 2.5 (5.5) | | |
| | | 4.4 (175) | 180-210 | 24-30 | 2.9 (6.4) | | |
| | | 5.1 (200) | 200-230 | 25-30 | 3.3 (7.3) | | |
| | | 5.7 (225) | 230-260 | 25-31 | 3.7 (8.2) | | |
| | | 6.4 (250) | 250-280 | 26-31 | 4.2 (9.2) | | |
| | | 6.9 (275) | 270-300 | 26-32 | 4.6 (10.1) | | |
| | | Flat & Horizontal | | | | | |
| | | 8.3 (325) | 300-330 | 27-32 | 5.4 (11.9) | | |
| | | 8.9 (350) | 330-360 | 28-34 | 5.8 (12.8) | | |

SMAW

SAW

GMAW

GTAW

FCAW

Non-FERROUS

APPENDIX