

Supercored 70SB

Type : Basic

Conformances

AWS A5.36/ ASME SFA5.36 E71T5-C1A2-CS1 H4
 (AWS A5.20/ ASME SFA5.20 E71T-5C)
 JIS Z3313 T49 4 T5-1 M A-U H5
 EN ISO 17632-A-T 42 3 B C1 2 H5
 KR 3YSG(C1) H5
 ABS 3SA, 3YSA H5

LR 3YS H5
 BV SA3YM HHH
 DNV-GL IIIYMS H5
 NK KSW53G(C) H5

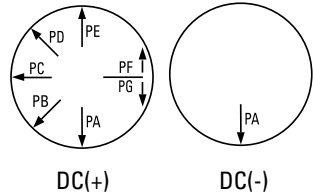
Applications

- Shipbuilding
- Structural fabrication
- Heavy equipment

Features

- Good crack resistance
- Good impact value at low temperature

Welding Position



Current

DC +

Shielding Gas

100% CO₂

Diameter / Packaging

| Diameter mm (in) | Spool | | | Pac | | |
|---------------------|----------------|--------------|--------------|----------------|----------------|----------------|
| | 12.5kg (28lbs) | 15kg (33lbs) | 20kg (44lbs) | 250kg (551lbs) | 300kg (661lbs) | 350kg (771lbs) |
| 0.8 (0.033) | | | | | | |
| 0.9 (0.035) | | | | | | |
| 1.0 (0.040) | | | | | | |
| 1.2 (0.045) | ✓ | ✓ | ✓ | | | |
| 1.4 (0.052) | ✓ | ✓ | ✓ | | | |
| 1.6 (1/16) | ✓ | ✓ | ✓ | | | |

Typical Chemical Composition of All-Weld Metal (%)

| C | Si | Mn | P | S |
|------|-----|-----|-------|-------|
| 0.07 | 0.5 | 0.4 | 0.008 | 0.010 |

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) | Polarity |
|---------------------------------|---------------------------------|-----------|----------------|--------------------------------|----------|
| 570 (82,800) | 620 (90,000) | 26 | -30 (-22) | 70 (52) | DC (-) |
| 500 (72,600) | 550 (79,900) | 31 | -30 (-22) | 80 (59) | DC (+) |

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) | 4.5 (175) | 120~160 | 18~23 | 1.5 (3.3) | 86~88 |
| | | 6.4 (250) | 135~175 | 19~25 | 2.2 (4.8) | |
| | | 7.6 (300) | 150~180 | 20~26 | 2.5 (5.5) | |
| | | 8.9 (350) | 175~205 | 23~28 | 3.0 (6.6) | |
| | | 10.2 (400) | 185~220 | 25~30 | 3.5 (7.6) | |
| | | 11.5 (450) | 220~260 | 26~31 | 3.8 (8.4) | |
| | | 12.8 (500) | 250~290 | 27~32 | 4.4 (9.6) | |
| 15.3 (600) | 280~320 | 28~33 | 5.3 (11.6) | | | |
| 1.4mm (0.052 in) DC+ | | | | | | |
| 100% CO ₂ | 25 (1) | 3.8 (150) | 130~170 | 20~25 | 1.9 (4.1) | 85~89 |
| | | 5.1 (200) | 160~200 | 21~26 | 2.5 (5.5) | |
| | | 6.4 (250) | 180~230 | 22~28 | 3.0 (6.6) | |
| | | 7.6 (300) | 220~260 | 23~29 | 4.2 (9.2) | |
| | | 10.2 (400) | 270~320 | 27~32 | 5.5 (12.1) | |
| | | 12.8 (500) | 300~350 | 28~34 | 6.0 (13.2) | |
| 1.6mm (1/16 in) DC+ | | | | | | |
| 100% CO ₂ | 25 (1) | 3.2 (125) | 170~210 | 22~25 | 2.0 (4.4) | 84~87 |
| | | 3.8 (150) | 180~220 | 23~26 | 2.5 (5.5) | |
| | | 5.1 (200) | 220~260 | 25~29 | 3.2 (7.0) | |
| | | 6.4 (250) | 270~320 | 26~32 | 4.0 (8.8) | |
| | | 7.6 (300) | 300~350 | 28~34 | 5.0 (11.0) | |
| | | 10.2 (400) | 350~400 | 34~38 | 6.4 (14.0) | |