

SW-316L Cored

Type : Rutile



Conformances

AWS A5.22/ ASME SFA5.22 E316LT1-1/-4
 JIS Z3323 TS316L-FB1
 EN ISO 17633-A-T 19 12 3 L P M21/C1 2
 KR RW316LG (C) (-60°C ≥34J)
 ABS AWS A5.22 E316LT1-1/-4
 LR 316L (C1)
 BV 316L (-60°C) (C1)

DNV-GL VL 316L (C1)
 NK KW316LG(C)
 TÜV EN ISO 17633-A - T19 12 3 L P M21/C1 2
 DB DIN EN ISO 17633-A-T19 12 3 L P M21/C1 2
 CWB AWS A5.22 E316LT1-1/-4
 CE
 RS A-6(316L) (C1)

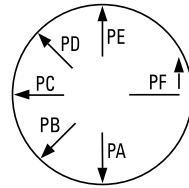
Applications

- 18%Cr-12%Ni-2%Mo stainless steels

Features

- Good performance in all positions

Welding Position



Current

DC +

Shielding Gas

100% CO₂
 Ar + 20~25% CO₂

Diameter / Packaging

| Diameter mm (in) | Spool | | | Pac | | |
|---------------------|-------------|------------------|--------------|----------------|----------------|----------------|
| | 5kg (11lbs) | 12.5kg (27.6lbs) | 15kg (33lbs) | 250kg (551lbs) | 300kg (661lbs) | 350kg (771lbs) |
| 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 | Cr | Ni | Mo |
|------------------------------|-------|------|------|-------|-------|-------|-------|------|
| 100% CO ₂ | 0.025 | 0.90 | 1.25 | 0.013 | 0.008 | 11.80 | 17.54 | 2.63 |
| 80% Ar + 20% CO ₂ | 0.025 | 0.92 | 1.38 | 0.013 | 0.008 | 11.73 | 17.54 | 2.63 |

Typical Mechanical Properties of All-Weld Metal

| | TS MPa(lbs/in ²) | EL (%) | Temp °C(°F) | CVN-Impact Value J (ft.-lbs) |
|------------------------------|---------------------------------|-----------|----------------|---------------------------------|
| 100% CO ₂ | 550 (79,750) | 45.6 | -60 (-76) | 45 (33) |
| 80% Ar + 20% CO ₂ | 555 (80,475) | 42.4 | -60 (-76) | 45 (33) |

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) |
|-------------------------------------|-----------------|-----------------------------------|-------------|--------------|----------------------------------|
| 1.2mm (0.045 in) DC+ | | | | | |
| 100% CO ₂ | 20 (4/5) | 6.0 (236) | 140 | 23-26 | 2.5 (5.5) |
| | | 9.2 (362) | 180 | 27-30 | 3.4 (7.5) |
| | | 12.0 (472) | 210 | 28-31 | 4.5 (9.9) |
| 80% Ar + 20% CO ₂ | 20 (4/5) | 6.1 (240) | 140 | 23-26 | 2.6 (5.7) |
| | | 9.0 (354) | 180 | 27-30 | 3.6 (7.9) |
| | | 11.5 (453) | 210 | 27-30 | 4.6 (10.1) |
| 1.6mm (1/16 in) DC+ | | | | | |
| 100% CO ₂ | 25 (1) | 3.8 (150) | 180 | 24-27 | 3.0 (6.6) |
| | | 6.5 (256) | 250 | 25-28 | 4.6 (10.1) |
| | | 8.9 (350) | 290 | 26-29 | 5.9 (13.0) |
| 80% Ar + 20% CO ₂ | 25 (1) | 3.7 (146) | 180 | 24-27 | 3.1 (6.8) |
| | | 6.4 (250) | 250 | 25-28 | 4.8 (10.6) |
| | | 8.8 (346) | 290 | 26-29 | 6.1 (13.4) |

SWAW

SAW

GMAW

GTAW

FCAW

Non-FERROUS

APPENDIX