

Cryo-Shield Ni9

Flux cored wire for welding of 9% Ni steel. Cryo-Shield Ni9 is a gas shielded flux cored wire that can be used for welding in all positions using 100% CO₂ shielding gas. This weld metal is a Nickel-based with excellent crack resistance and less sensitive to weld bead surface porosity.

Specifications

Approvals

ABS : Manufacturer Guarantee
 BV : Equivalent to N90
 CCS : 9Ni
 DNV-GL : - MS
 KR : L 91SG(C)
 LR : 9Ni

Approvals are based on factory location. Please contact ESAB for more information.

Welding Current

DC+

Alloy Type

Ni Cr Mo

Shielding Gas

C1 (EN ISO 14175)

Tensile Properties

| Testing Condition | Yield Strength | Tensile Strength | Elongation |
|-------------------|----------------|------------------|------------|
| C1 | | | |
| As Welded | 440 MPa | 730 MPa | 44 % |

Charpy Testing

| Testing Condition | Testing Temp | Impact Value |
|-------------------|--------------|--------------|
| C1 | | |
| As Welded | -196 °C | 65 J |

Typical Weld Metal Analysis %

| C | Mn | Si | S | P | Ni | Cr | Mo | Cu | Ti |
|-------------------------------------|------|------|-------|------|------|------|------|------|------|
| CO₂ Shielding gas | | | | | | | | | |
| 0.02 | 1.45 | 0.45 | 0.002 | 0.01 | 58.5 | 19.0 | 8.15 | 0.01 | 0.12 |

Typical Weld Metal Analysis %

| Fe | Nb+Ta |
|-------------------------------------|-------|
| CO₂ Shielding gas | |
| 9.0 | 3.00 |

Deposition Data

| Diameter | Amps | Volts | Wire Feed Speed | Deposition Rate |
|----------|-----------|---------|-----------------|-----------------|
| 1.2 mm | 130-220 A | 24-29 V | 5.8-14.4 m/min | 1.9-4.6 kg/h |