

## Corofil R59Ni

An all-positional rutile cored wire for use with argon / 15-25% carbon dioxide shielding gas, providing very good toughness down to -40 °C. Can be used in all positions except vertical down.

### Specifications

|                        |                                                                                                                                 |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Classifications</b> | SFA/AWS A5.29 : E81T1-Ni1M<br>EN ISO 17632-A : T 46 3 1Ni P C1 2 H5<br>EN ISO 17632-A : T 46 4 1Ni P M21 2 H5                   |
| <b>Approvals</b>       | ABS : 3YSAH5 (M21)<br>BV : SA3YM (M21)<br>CE : EN 13479<br>DNV-GL : IV Y46MS H5 (M21)<br>LR : 4Y46S H5 (M21)<br>UKCA : EN 13479 |

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

|                            |                         |
|----------------------------|-------------------------|
| <b>Welding Current</b>     | DC+                     |
| <b>Diffusible Hydrogen</b> | < 5ml/100g              |
| <b>Alloy Type</b>          | Low alloy steel (1% Ni) |
| <b>Shielding Gas</b>       | M21, C1 (EN ISO 14175)  |

### Typical Tensile Properties

| Condition                | Yield Strength | Tensile Strength | Elongation |
|--------------------------|----------------|------------------|------------|
| <b>M21 shielding gas</b> |                |                  |            |
| As Welded                | 560 MPa        | 600 MPa          | 25 %       |

### Typical Charpy V-Notch Properties

| Condition                | Testing Temperature | Impact Value |
|--------------------------|---------------------|--------------|
| <b>M21 shielding gas</b> |                     |              |
| As Welded                | -20 °C              | 130 J        |
| As Welded                | -30 °C              | 120 J        |
| As Welded                | -40 °C              | 110 J        |

### Deposition Data

| Diameter | Current   | Voltage | Wire Feed Speed | Deposition Rate |
|----------|-----------|---------|-----------------|-----------------|
| 1.2 mm   | 110-300 A | 21-32 V | 3.2-14.5 m/min  | 1.3-5.8 kg/h    |