

## FILARC 76S

CTOD tested, all-position basic AC/DC electrode for offshore fabrication. Alloyed with max 1% nickel. Good CVN toughness down to -60° C. CTOD tested in the AW and SR conditions. Use short arc. Weave slowly when permitted. DC+. Use DC- for root pass.

| Specifications  |                                                                                                     |
|-----------------|-----------------------------------------------------------------------------------------------------|
| Classifications | SFA/AWS A5.5 : E7018-G<br>EN ISO 2560-A : E 46 6 Mn1Ni B 32 H5                                      |
| Approvals       | ABS : 3Y H5<br>BV : 3Y H5<br>CE : EN 13479<br>DNV-GL : 3 YH5<br>LR : 5Y42 H5<br>Seproz : UNA 272581 |

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

|                     |                        |
|---------------------|------------------------|
| Welding Current     | AC, DC+-               |
| Diffusible Hydrogen | < 5.0 ml/100g          |
| Alloy Type          | Low alloyed (0.9 % Ni) |
| Coating Type        | Basic covering         |

| Typical Tensile Properties |                |                  |            |
|----------------------------|----------------|------------------|------------|
| Condition                  | Yield Strength | Tensile Strength | Elongation |
| ISO                        |                |                  |            |
| As Welded                  | 550 MPa        | 630 MPa          | 28 %       |

| Typical Charpy V-Notch Properties |                     |              |
|-----------------------------------|---------------------|--------------|
| Condition                         | Testing Temperature | Impact Value |
| ISO                               |                     |              |
| As Welded                         | -40 °C              | 110 J        |
| As Welded                         | -60 °C              | 75 J         |

| Typical Weld Metal Analysis % |      |      |      |      |      |
|-------------------------------|------|------|------|------|------|
| C                             | Mn   | Si   | Ni   | Cr   | Mo   |
| 0.05                          | 1.58 | 0.36 | 0.87 | 0.04 | 0.01 |

| Deposition Data |           |         |                |                                        |                 |
|-----------------|-----------|---------|----------------|----------------------------------------|-----------------|
| Diameter        | Current   | Voltage | Efficiency (%) | Fusion time per electrode at 90% I max | Deposition Rate |
| 2.5 x 350.0 mm  | 55-85 A   | 24 V    | 65 %           | 59 sec                                 | 0.7 kg/h        |
| 3.0 x 350.0 mm  | 100-125 A | 21 V    | 63 %           | 63 sec                                 | 1.05 kg/h       |
| 3.2 x 350.0 mm  | 80-140 A  | 23.8 V  | 57 %           | 60 sec                                 | 1.12 kg/h       |
| 3.5 x 350.0 mm  | 125-175 A | 21.6 V  | 61 %           | 63 sec                                 | 1.4 kg/h        |
| 4.0 x 350.0 mm  | 120-180 A | 22 V    | 63 %           | 78 sec                                 | 1.51 kg/h       |
| 4.0 x 450.0 mm  | 120-170 A | 22.2 V  | 60.8 %         | 109 sec                                | 1.4 kg/h        |
| 5.0 x 450.0 mm  | 180-270 A | 24.3 V  | 62 %           | 106 sec                                | 2.22 kg/h       |