

# FILARC 118

All position basic AC/DC electrode with 120% recovery for welding high-strength, fine-grained constructional steels (> 690 MPa) with excellent sub-zero toughness down to -50 degrees C and low diffusible hydrogen levels. Use shortest possible arc. Weave slowly when permitted. A slight weave can be used for standing fillet welds. Use DC- for root runs

| Specifications  |                                                                                           |
|-----------------|-------------------------------------------------------------------------------------------|
| Classifications | SFA/AWS A5.5 : E11018-M H4R<br>EN ISO 18275-A : E 69 5 Mn2NiMo B 32 H5                    |
| Approvals       | ABS : E11018-M<br>CE : EN 13479<br>DNV-GL : 4 Y62H5<br>LR : 4Y62 H5<br>MoD : (N) Q1N HY80 |

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

|                     |                                  |
|---------------------|----------------------------------|
| Welding Current     | AC, DC+-                         |
| Diffusible Hydrogen | < 4.0 ml/100g                    |
| Alloy Type          | Low alloyed (2.3 % Ni, 0.4 % Mo) |
| Coating Type        | Basic covering                   |

| Tensile Properties |                |                  |            |
|--------------------|----------------|------------------|------------|
| Testing Condition  | Yield Strength | Tensile Strength | Elongation |
| <b>AWS</b>         |                |                  |            |
| As Welded          | 730 MPa        | 800 MPa          | 22 %       |
| <b>ISO</b>         |                |                  |            |
| As Welded          | 750 MPa        | 820 MPa          | 20 %       |

| Charpy Testing    |              |              |
|-------------------|--------------|--------------|
| Testing Condition | Testing Temp | Impact Value |
| <b>AWS</b>        |              |              |
| As Welded         | -50 °C       | 80 J         |
| <b>ISO</b>        |              |              |
| As Welded         | -50 °C       | 85 J         |

| Typical Weld Metal Analysis % |      |      |       |       |      |      |      |       |
|-------------------------------|------|------|-------|-------|------|------|------|-------|
| C                             | Mn   | Si   | S     | P     | Ni   | Cr   | Mo   | V     |
| 0.06                          | 1.65 | 0.32 | 0.010 | 0.015 | 2.27 | 0.06 | 0.44 | 0.015 |

| Deposition Data |           |        |                  |                                          |                          |
|-----------------|-----------|--------|------------------|------------------------------------------|--------------------------|
| Diameter        | Amps      | Volts  | Efficiency (Per) | Fusion time per electrode at 90Per I max | Deposition rate at 90Per |
| 2.5 x 350.0 mm  | 65-100 A  | 25.7 V | 63 %             | 52 sec                                   | 0.96 kg/h                |
| 3.2 x 350.0 mm  | 95-150 A  | 23.1 V | 62 %             | 67 sec                                   | 1.35 kg/h                |
| 4.0 x 450.0 mm  | 115-190 A | 23.3 V | 67 %             | 95 sec                                   | 1.79 kg/h                |
| 5.0 x 450.0 mm  | 190-270 A | 24.9 V | 68 %             | 110 sec                                  | 2.46 kg/h                |