

## Pipeweld 100DH

A low alloyed low hydrogen electrode of AWS 10018-G type specially designed for downhill welding circumferential joints in pipelines API 5L , X80. The low hydrogen weld metal provides high notch toughness and excellent ductility to reduce the risk of cracking. The electrode has been specially designed to provide excellent striking properties and elimination of start porosity. Productivity is significantly higher than conventional low hydrogen electrodes for welding vertically up.

### Specifications

|                        |  |
|------------------------|--|
| <b>Classifications</b> | SFA/AWS A5.5 : E10018-G H4R<br>EN ISO 18275-A : E 62 5 Z B 45 H5 |
| <b>Approvals</b>       | NAKS/HAKC : 3.2-4.5 mm   |

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

|                            |               |
|----------------------------|---------------|
| <b>Welding Current</b>     | DC+           |
| <b>Diffusible Hydrogen</b> | < 4.0 ml/100g |
| <b>Alloy Type</b>          | Low alloyed   |
| <b>Coating Type</b>        | Basic         |

### Tensile Properties

| Testing Condition | Yield Strength | Tensile Strength | Elongation |
|-------------------|----------------|------------------|------------|
| <b>ISO</b>        |                |                  |            |
| As Welded         | 690 MPa        | 740 MPa          | 23 %       |

### Charpy Testing

| Testing Condition | Testing Temp | Impact Value |
|-------------------|--------------|--------------|
| <b>ISO</b>        |              |              |
| As Welded         | -50 °C       | 55 J         |

### Typical Weld Metal Analysis %

| C    | Mn   | Si   | Ni   | Cr   | Mo   |
|------|------|------|------|------|------|
| 0.06 | 1.89 | 0.39 | 1.58 | 0.03 | 0.01 |

### Deposition Data

| Diameter       | Amps      | Volts | Efficiency (Per) | Fusion time per electrode at 90Per l max | Deposition rate at 90Per |
|----------------|-----------|-------|------------------|--|--------------------------|
| 3.2 x 350.0 mm | 110-150 A | 27 V  | 67 %             | 53 sec                                   | 1.6 kg/h                 |
| 4.0 x 350.0 mm | 180-220 A | 28 V  | 78 %             | 50 sec                                   | 2.8 kg/h                 |
| 4.5 x 350.0 mm | 230-270 A | 28 V  | 71 %             | 50 sec                                   | 3.4 kg/h                 |