

## Pipeweld 90DH

A low alloyed low hydrogen electrode of AWS E9045-P2 type specially designed for downhill welding circumferential joints in pipelines API 5L X70,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 : E9045-P2 H4R EN ISO 18275-A : E 55 6 Mn1Ni 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

### Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
<b>ISO</b>			
As Welded	590 MPa ( 86 ksi )	670 MPa ( 97 ksi )	24 %

### Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
<b>ISO</b>		
As Welded	-30 °C ( -22 °F )	80 J ( 59 ft-lb )
As Welded	-60 °C ( -76 °F )	50 J ( 37 ft-lb )

### Typical Weld Metal Analysis %

C	Mn	Si	Ni
0.07	1.5	0.5	0.8

### Deposition Data

Diameter	Current	Voltage	Deposition Efficiency (%)	Burn-off Time /Electrode	Deposition Rate @ 90% I max
2.5 x 350.0 mm ( 0.098 x 13.8 in. )	70-100 A	21 V	70 %	58 sec	1.0 kg/h ( 2.2 lbs/h )
3.2 x 350.0 mm ( 1/8 x 13.8 in. )	110-150 A	21 V	68 %	56 sec	1.5 kg/h ( 3.3 lbs/h )
4.0 x 350.0 mm ( 5/32 x 13.8 in. )	180-220 A	24 V	67 %	54 sec	2.3 kg/h ( 5.1 lbs/h )
4.5 x 350.0 mm	210-270 A	24 V	68 %	54 sec	2.9 kg/h ( 6.4 lbs/h )