



# OK 76.98

OK 76.98 is a low-hydrogen electrode for welding of modified 9 Cr-steels like T91/P91. The electrode is suitable for all-positional welding in pipes and plates.

## Specifications

Classifications	SFA/AWS A5.5 : E9015-B91 (nearest) EN ISO 3580-A : E CrMo91 B 4 2 H5
Approvals	CE : EN 13479 NAKS/HAKC : 2.5-4.0 mm VdTÜV : 07687 Seproz : UNA 272580

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

Alloy Type	Low alloyed (9 % Cr, 1 % Mo + Ni / V / Nb)
Coating Type	Basic covering
Diffusible Hydrogen	< 5.0 ml/100g
Welding Current	DC+

Tensile_Properties					
Testing Condition	Yield Strength	Tensile Strength	Elongation	Stress Relieved Temperature	Stress Relieved Testing Time
ISO					
PWHT	720 MPa ( 104 ksi )	820 MPa ( 119 ksi )	21 %	755 °C ( 1391 °F )	2 hour(s)

Charpy Testing				
Testing Condition	Testing Temp	Impact Value	Test Condition Time	Test Condition Temp
ISO				

## Charpy Testing

Testing Condition	Testing Temp	Impact Value	Test Condition Time	Test Condition Temp
PWHT	20 °C ( 68 °F )	50 J ( 37 ft-lb )	2 hour(s)	755 °C ( 1391 °F )

## Analysis

**C                  Si                  Mn                  Cr                  Ni                  Mo                  V                  Nb**

### Typical Weld Metal Analysis %

0.1	0.35	0.8	9	0.7	1	0.24	0.06
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## Deposition Data

Deposition rate at 90Per	Diameter	Amps	Efficiency (Per)	Volts	Fusion time per electrode at 90Per I max	Number of electrodes /kg weld metal
0.9 kg/h ( 2.0 lbs/h )	2.5 x 350.0 mm ( 0.098 x 13.8 in. )	70- 100 A	66 %	2 1 V	56 sec	71.4
1.2 kg/h ( 2.6 lbs/h )	3.2 x 350.0 mm ( 1/8 x 13.8 in. )	90- 135 A	60 %	2 2 V	68 sec	45.5
1.9 kg/h ( 4.2 lbs/h )	4.0 x 450.0 mm ( 5/32 x 17.7 in. )	130- 200 A	64 %	2 3 V	85 sec	22.6
2.3 kg/h ( 5.1 lbs/h )	5.0 x 450.0 mm ( 0.197 x 17.7 in. )	140- 260 A	65 %	2 2 V	110 sec	14