

# OK 48.00



A reliable, general purpose electrode for manual metal arc welding of carbon steels, carbon manganese steels and fine-grained carbon manganese steels with elevated yield strength. OK 48.00 deposits a tough, crack-resistant weld metal. The coating is of the low moisture absorption type.

High welding speed in the vertical-up position. OK 48.00 is insensitive to the composition of the base material within fairly wide limits.

The electrode can be used for welding structures where difficult stress conditions cannot be avoided.

Tested according to NACE TM0177 and TM0284.

Diffusible Hydrogen tested in various conditions show values below 3 ml/100g.

<b>Classifications</b>	SFA/AWS A5.1 : E7018 H4 R EN ISO 2560-A : E 42 4 B 42 H5
<b>Approvals</b>	ABS 3Y H5 BV 3Y H5 CE EN 13479 DB 10.039.12 DNV-GL 3 YH5 LR 3Y H5 PRS 3Y H5 RINA 3Y H5 RS 3Y H5 VdTUV 00690 NAKS/HAKC 2.5 - 5.0 mm
<b>Industry</b>	Civil Construction Energy Industrial and General Fabrication Marine and Offshore Light Fabrication

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 (< 3 for most of the batches)
<b>Alloy Type</b>	Carbon Manganese
<b>Coating Type</b>	Basic covering

## Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
<b>ISO</b>			
As Welded	475 MPa	565 MPa	29 %

## Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
<b>ISO</b>		
As Welded	-30 °C	130 J
As Welded	-40 °C	115 J
<b>AWS</b>		
As Welded	-30 °C	130 J

## Typical Weld Metal Analysis %

C	Mn	Si
0.06	1.1	0.5

## Deposition Data

Diameter	Current	Voltage	Number of electrodes/ kg weld metal	Fusion time per electrode at 90% I max	Deposition Efficiency %	Deposition Rate @ 90% I max
1.6 x 300.0 mm	30-55 A	24 V	192	50 sec	59 %	0.38 kg/h
2.0 x 300.0 mm	55-80 A	22 V	125	45 sec	65 %	0.63 kg/h
2.5 x 350.0 mm	70-110 A	24 V	65	57 sec	67 %	0.96 kg/h
3.2 x 350.0 mm	90-140 A	23 V	42	68 sec	70 %	1.24 kg/h
3.2 x 450.0 mm	90-140 A	23 V	31	85 sec	73 %	1.33 kg/h
4.0 x 350.0 mm	120-190 A	24 V	29	75 sec	70 %	1.63 kg/h
4.0 x 450.0 mm	120-190 A	24 V	22	92 sec	71 %	1.76 kg/h
5.0 x 450.0 mm	190-260 A	24 V	13	99 sec	75 %	2.61 kg/h
6.0 x 450.0 mm	220-340 A	26 V	9	97 sec	80 %	3.88 kg/h



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### Deposition Data

Diameter	Current	Voltage	Number of electrodes/ kg weld metal	Fusion time per electrode at 90% I max	Deposition Efficiency %	Deposition Rate @ 90% I max
7.0 x 450.0 mm	280-410 A	27 V	7.0	104 sec	79 %	4.83 kg/h