

# OK 74.78



OK 74.78 is an LMA electrode suitable for welding high tensile steels used in low-temperature applications. Good notch toughness down to  $-40^{\circ}\text{C}$ . Very suitable for both the enclosed welding and cladding of rails, when a hardness of about 250 HV is required. The moisture content of the coating is very low, which makes OK 74.78 suitable when preheating cannot be applied.

<b>Classifications:</b>	SFA/AWS A5.5:E9018-D1, EN ISO 18275-A:E 55 4 MnMo B 3 2 H5
<b>Approvals:</b>	CE EN 13479, DNV 3Y H5, DB 81.039.02, DB 82.039.02, VdTÜV 01027, ABS 3YQ460M H5

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

<b>Welding Current:</b>	AC, DC+
<b>Diffusible Hydrogen:</b>	<5.0 ml/100g
<b>Alloy Type:</b>	0.4% Mo
<b>Coating Type:</b>	Lime Basic

Typical Tensile Properties			
Condition	Yield Strength	Tensile Strength	Elongation
ISO			
As welded	600 MPa	650 MPa	24 %

Typical Charpy V-Notch Properties		
Condition	Testing Temperature	Impact Value
ISO		
As welded	$-40^{\circ}\text{C}$	90 J
As welded	$-50^{\circ}\text{C}$	70 J

Typical Weld Metal Analysis %					
C	Mn	Si	Ni	Cr	Mo
0.05	1.60	0.35	0.03	0.03	0.35

Deposition Data						
Diameter	Current	Voltage	kg weld metal/kg electrodes	Number of electrodes/kg weld metal	Fusion time per electrode at 90% I max	Deposition rate 90% I max
2.5 x 350 mm	75-100 A	22 V	0.62	73.0	55 s	0.90 kg/h
3.2 x 450 mm	105-140 A	23 V	0.65	32.0	86 s	1.30 kg/h
4.0 x 450 mm	140-190 A	23 V	0.65	20.5	97 s	1.80 kg/h
5.0 x 450 mm	190-260 A	24 V	0.68	14.0	100 s	2.60 kg/h
6.0 x 450 mm	240-340 A	24 V	0.69	10	103 s	3.6 kg/h