

OK 74.78



OK 74.78 is an LMA AC/DC electrode suitable for welding high tensile steels used in low temperature applications. Good notch toughness down to -40°C. Suitable for enclosed welding and cladding of rails, when a hardness of ~ 250 HV is required. Also suitable for butt welding rails with tensile strength of 800-900 N/mm². Due to low moisture content in the coating, this electrode is suitable when preheating cannot be applied.

Classifications	SFA/AWS A5.5 : E9018-D1 EN ISO 18275-A : E 55 4 MnMo B 3 2 H5
Approvals	ABS 3YQ460 H5 CE EN 13479 DB 82.039.02 DNV-GL 3 Y46H5 VdTUV 01027

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

Welding Current	AC, DC+
Diffusible Hydrogen	< 5.0 ml/100g
Alloy Type	Low alloyed (0.4 % Mo)
Coating Type	Basic covering

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 °C	90 J
As Welded	-50 °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	Number of electrodes/ kg weld metal	Fusion time per electrode at 90% I max	Deposition Efficiency %	Deposition Rate @ 90% I max
2.5 x 350.0 mm	75-100 A	22 V	73.0	55 sec	62 %	0.9 kg/h
3.2 x 450.0 mm	105-140 A	23 V	32.0	86 sec	65 %	1.3 kg/h
4.0 x 450.0 mm	140-190 A	23 V	20.5	97 sec	65 %	1.8 kg/h
5.0 x 450.0 mm	190-260 A	24 V	14.0	100 sec	68 %	2.6 kg/h
6.0 x 450.0 mm	240-340 A	24 V	10	103 sec	69 %	3.6 kg/h