

Exaton 309LMo-17

309LMo-17 is a high alloyed chromium-nickel-molybdenum covered electrode with rutile coating for welding of dissimilar joints between stainless steel and mild or low alloyed steels. It is also used to create buffer layers with a composition of 18%Cr/8%Ni/2%Mo before overlay alloys are deposited. The electrode has excellent arc stability, low spatter and fast burn off rate with minimal stub loss. It is also characterized by improved moisture resistance, self peeling slag, easy post weld finishing. 309LMo-17 gives smooth uniform beads and works in any standard weld position. Typical applications are welding of stainless steels to mild or low alloy steels, buffer layers on low alloy steels before overlays of 316 composition, welding of medium carbon hardenable steels e.g armor plate.

Specifications

Classifications	EN ISO 3581-A : E 23 12 2 L R 3 2 SFA/AWS A5.4 : E309LMo-17 Werkstoffnummer : 1.4459
Approvals	CE : EN 13479 DNV : NV 309 Mo UKCA : EN 13479 VdTÜV : 07790

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

Welding Current	DC+, AC
Ferrite Content	FN 12-22
Alloy Type	Austenitic CrNi
Coating Type	Acid Rutile

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
ISO			
As Welded	560 MPa (81 ksi)	790 MPa (115 ksi)	30 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
ISO		
As Welded	20 °C (68 °F)	57 J (42 ft-lb)
As Welded	-20 °C (-4 °F)	47 J (35 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	Cu	N
0.02	0.8	0.9	0.014	0.021	12.5	23	2.6	0.07	0.08

Typical Weld Metal Analysis %

FN WRC-92
18

Deposition Data

Diameter	Current	Voltage	Deposition Efficiency (%)	Burn-off Time /Electrode	Deposition Rate @ 90% I max
2.5 x 300.0 mm (0.098 x 11.8 in.)	50-90 A	29 V	57 %	45 sec	0.9 kg/h (2.0 lbs/h)
3.2 x 350.0 mm (1/8 x 13.8 in.)	60-120 A	27 V	59 %	61 sec	1.4 kg/h (3.1 lbs/h)
4.0 x 350.0 mm (5/32 x 13.8 in.)	85-180 A	31 V	61 %	56 sec	2.0 kg/h (4.4 lbs/h)