

Exaton 316/316L-17

316/316L-17 is a chromium-nickel-molybdenum covered electrode with rutile coating for welding of low carbon, molybdenum alloyed, austenitic stainless steels of 316L (1.4436) type. 316/316L-17 is used for welding steel of the types ISO: 1.4401, 1.4404, 1.4435, 1.4436, 1.4571 and ASTM: 316, 316L, 316LN, 316H and 316Ti. In cases where creep strength is of secondary importance, 316/316L-17 is suitable for welding of corresponding stabilized austenitic steels. When a weld metal similar to the parent metal is not required, 316/316L-17 can be used for welding ferritic and martensitic steels.

Specifications	
Classifications	EN ISO 3581-A : E 19 12 3 L R 1 2 SFA/AWS A5.4 : E316L-17 CSA W48 : E316L-17 Werkstoffnummer : 1.4430
Approvals	CE : EN 13479 CWB : E316L-17 UKCA : EN 13479 VdTÜV : 07789

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

Welding Current	DC+, AC
Ferrite Content	FN 3-10
Alloy Type	Austenitic CrNiMo
Coating Type	Acid Rutile

Typical Tensile Properties			
Condition	Yield Strength	Tensile Strength	Elongation
ISO			
As Welded	470 MPa (68 ksi)	590 MPa (86 ksi)	35 %

Typical Charpy V-Notch Properties		
Condition	Testing Temperature	Impact Value
ISO		
As Welded	-105 °C (-157 °F)	36 J (27 ft-lb)
As Welded	-20 °C (-4 °F)	60 J (44 ft-lb)
As Welded	20 °C (68 °F)	70 J (52 ft-lb)

Typical Weld Metal Analysis %									
C	Mn	Si	S	P	Ni	Cr	Mo	Cu	N
0.02	0.8	1	0.015	0.024	12	18.5	2.8	0.07	0.10

Typical Weld Metal Analysis %		
FN deLong	FN WRC-92	Ferrite % Schaeffler
7	3	7

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.)	45-90 A	29 V	55 %	45 sec	0.9 kg/h (2.0 lbs/h)
3.2 x 350.0 mm (1/8 x 13.8 in.)	60-125 A	30 V	55 %	57 sec	1.4 kg/h (3.1 lbs/h)

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Deposition Data

Diameter	Current	Voltage	Deposition Efficiency (%)	Burn-off Time /Electrode	Deposition Rate @ 90% I max
4.0 x 350.0 mm (5/32 x 13.8 in.)	70-190 A	32 V	56 %	57 sec	2.0 kg/h (4.4 lbs/h)