

Shield-Bright 309LMo

FCAW wire for dissimilar metals, For all-position welding. Designed for welding type 316 clad steels on the first pass in cladding steels or for welding dissimilar metals such as Mo-containing austenitic stainless steels to carbon steels. Used in paper mills and in power plants. Carbon content 0.04% maximum.

Specifications

Classifications	SFA/AWS A5.22 : E309LMoT1-1 SFA/AWS A5.22 : E309LMoT1-4 JIS Z 3323 : TS309LMo-FB1 KS D 3612 : YF309MoLC EN ISO 17633-A : T 23 12 2 L P C1 2 EN ISO 17633-A : T 23 12 2 L P M21 2
Approvals	DNV-GL : VL 309MoL KR : RW 309MoLG(C)

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

Welding Current	DC+
Alloy Type	C Cr Ni Mo
Shielding Gas	M21, C1 (EN ISO 14175)

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
M21 Shielding Gas			
As Welded	570 MPa	750 MPa	30 %
C1 Shielding Gas			
As Welded	550 MPa	715 MPa	35 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
C1 Shielding Gas		
As Welded	-29 °C	50 J
As Welded	-196 °C	20 J

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo
M21 Shielding Gas							
0.030	1.2	0.75	0.008	0.024	13.0	23.5	2.60
C1 Shielding Gas							
0.029	1.0	0.70	0.008	0.024	12.7	22.90	2.60

Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
1.2 mm	130-220 A	24-29 V	5.8-14.4 m/min	1.9-4.6 kg/h