

Shield-Bright 309LMo

Shield-Bright 309LMo was designed for welding type 316 clad steels on the first pass in cladding steels or for welding dissimilar metals such as molybdenum-containing austenitic stainless steels to carbon steels. It is used in paper mills and in power plants to give greater corrosion resistance. This wire performs best when used out-of-position shielded with either Argon/C02 or 100% C02.

Classifications Weld Metal	SFA/AWS A5.22 : E309LMoT1-4 SFA/AWS A5.22 : E309LMoT1-1 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

Yield Strength	Tensile Strength	Elongation
C1 Shielding Gas		
C1 Shielding Gas		

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
C1 Shielding Gas		
As Welded	-29 °C (-20 °F)	50 J (37 ft-lb)
As Welded	-196 °C (-321 °F)	20 J (15 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo
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 (0.045 in.)	130-220 A	24-29 V	5.8-14.4 m/min (228-567 in./min)	1.9-4.6 kg/h (4.2-10. lb/h)