

Shield-Bright 309L

Shield-Bright 309L is a rutile cored wire designed for the all-positional welding, except vertical down, of stainless steels to carbon or low alloy steels and for the first layer cladding of carbon and low alloy steels with Ar/15-25%CO₂ or CO₂ shielding gas.

Classifications	AWS A5.22 : E309T1-1/T1-4 A5.22 : E309LT1-1/T1-4
Approvals	G.L. - AWS A5.22 E309LT1-4 CWB AWS A5.22 E309LT1-1 AWS A5.22 E309LT1-1/T1-4 ABS-AWS A5.22 E309LT1-1 ASME II SFA 5.22 E309LT1-1/T1-4 ASME IX F No. 6 E309LT1-4 MIL-STD-1689 APPLICATIONS-NAVY TUV

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

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

Typical Tensile Properties

Yield Strength	Tensile Strength	Elongation
75% Ar - 25% CO ₂		
100% CO ₂		
100% CO ₂		

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
C1 shielding gas		
As Welded	-29 °C (-20 °F)	55 J (41 ft-lb)
As Welded	-196 °C (-321 °F)	18 J (13 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr
0.029	1.10	0.80	0.007	0.024	12.4	23.1

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)