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.

Specifications	
Classifications	AWS A5.22 : E309T1-1/T1-4 A5.22 : E309LT1-1/T1-4
Approvals	ABS-AWS A5.22 : E309LT1-1 ASME II SFA 5.22 E309LT1-1/T1-4 ASME IX F No. 6 AWS A5.22 : E309LT1-1/T1-4 CWB : AWS A5.22 E309LT1-1, E309LT1-4 G.L.- AWS A5.22 : 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			
Conditional Statement	**Yield Strength**	**Tensile Strength**	**Elongation**
100% CO2			
As welded	392 MPa (57 ksi)	539 MPa (78 ksi)	51 %
75% Ar - 25% CO2			
As welded	480 MPa (70 ksi)	600 MPa (87 ksi)	35 %

Typical Charpy V-Notch Properties		
Condition	**Testing Temperature**	**Impact Value**
C1		
As Welded	-29 °C (-20 °F)	55 J (41 ft-lb)
As Welded	-196 °C (-321 °F)	18 J (13 ft-lb)
M21		
As Welded	-29 °C (-20 °F)	45 J (33 ft-lb)
As Welded	-196 °C (-321 °F)	15 J (11 ft-lb)

Typical Weld Metal Analysis %						
C	**Mn**	**Si**	**S**	**P**	**Ni**	**Cr**
C1						
0.029	1.10	0.80	0.007	0.024	12.4	23.1
M21						
0.030	1.30	0.90	0.007	0.024	12.5	23.5

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. lbs/h)