

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	SFA/AWS A5.22 : E309LT1-1 SFA/AWS A5.22 : E309LT1-4 JIS Z 3323 : TS309L-FB1 KS D 3612 : YF-309LC EN ISO 17633-A : T 23 12 L P C1 2 EN ISO 17633-A : T 23 12 L P M21 2
Approvals	RS : A-9sp(x8CrNi 24 14) (C1) NAKS/HAKC : 1.2 mm LR : SS/CMn (M21) ABS : E309LT1-1 (C1) ABS : E309LT1-4 (M21) BV : 309L (C1) CCS : 309L (C1) CE : EN 13479 ClassNK : KW309LG(C) (C1) CWB : E309LT1-1 (C1) CWB : E309LT1-4 (M21) DNV-GL : VL 309L (C1) DNV-GL : VL 309L (M21) KR : RW309LG(C) (C1) LR : SS/CMn (C1) VdTÜV : 04833 (M20, M21)

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

Welding Current	DC+
Alloy Type	Austenitic Cr-Ni

Typical Tensile Properties				
Condition	Conditional Statement	Yield Strength	Tensile Strength	Elongation
M21 shielding gas				
As Welded	As welded	480 MPa	600 MPa	35 %
C1 shielding gas				
As Welded	As welded	392 MPa	539 MPa	51 %

Typical Charpy V-Notch Properties		
Condition	Testing Temperature	Impact Value
C1 shielding gas		
As Welded	-29 °C	55 J

Typical Weld Metal Analysis %				
C	Mn	Si	Ni	Cr
M21 shielding gas				
0.030	1.30	0.90	12.50	23.50
C1 shielding gas				
0.029	1.10	0.80	12.40	23.10

Shield-Bright 309L

Deposition Data

Diameter	Current	Voltage
1.6 mm	160-320 A	24-33 V
1.2 mm	130-220 A	24-29 V