

## 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%CO<sub>2</sub> or CO<sub>2</sub> shielding gas.

<b>Classifications</b>	AWS A5.22 : E309T1-1/T1-4 A5.22 : E309LT1-1/T1-4
<b>Approvals</b>	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.

<b>Welding Current</b>	DC+
<b>Alloy Type</b>	C Cr Ni

### Typical Tensile Properties

Yield Strength	Tensile Strength	Elongation
<b>75% Ar - 25% CO<sub>2</sub></b>		
480 MPa (70 ksi)	600 MPa (87 ksi)	35 %
<b>100% CO<sub>2</sub></b>		
392 MPa (57 ksi)	539 MPa (78 ksi)	51 %

### Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
<b>C1 shielding gas</b>		
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 (4-10 lb/h)