

## Shield-Bright 309L

FCAW wire for 22%Cr - 12%Ni stainless steel. For all-position welding. Designed for welding type 309 wrought or cast forms, but used extensively for welding type 304 to mild or carbon steel. Also used for welding 304 clad sheets and for applying stainless steel sheet linings to carbon steel. Carbon content 0.04% maximum.

Specifications	
<b>Classifications</b>	SFA/AWS A5.22 : E309LT1-1 SFA/AWS A5.22 : E309LT1-4 JIS Z 3323 : YF-309LC 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
<b>Approvals</b>	ABS : E309LT1-1 ABS : E309LT1-4 BV : 309L (C1) BV : SA 309L (M21) CCS : 309L (C1) CE : EN 13479 ClassNK : KW309LG(C) CWB : E 309LT1-1 (M21) CWB : E 309LT1-4 (C1) DNV : VL 309L (M21) KR : RW309LG(C) (C1) LR : SS/CMn UKCA : EN 13479 VdTÜV : 04833 (M20,M21)

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

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

Typical Tensile Properties			
Condition	Yield Strength	Tensile Strength	Elongation
<b>C1</b>			
As Welded	368 MPa	543 MPa	44 %
<b>M21</b>			
As Welded	377 MPa	559 MPa	39 %

Typical Charpy V-Notch Properties		
Condition	Testing Temperature	Impact Value
<b>C1</b>		
As Welded	-29 °C	55 J
As Welded	-196 °C	18 J
<b>M21</b>		
As Welded	-29 °C	45 J
As Welded	-196 °C	15 J

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

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### Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
1.2 mm	130-220 A	24-29 V	5.8-14.4 m/min	1.9-4.6 kg/h