

Shield-Bright 309L X-tra

FCAW wire for 22%Cr - 12%Ni stainless steel For flat and horizontal position welding. Developed to be used when welding most mild or carbon steels to type 304. The higher percentages of Cr and Ni provide the necessary crack resistance. Carbon content 0.04% maximum.

Specifications

Classifications	SFA/AWS A5.22 : E309LT0-1 SFA/AWS A5.22 : E309LT0-4 JIS Z 3323 : YF-309LC KS D 3612 : YF-309LC EN ISO 17633-A : T 23 12 L R C1 3 EN ISO 17633-A : T 23 12 L R M21 3
Approvals	VdTÜV : 06594 DNV : 309L MS (M21) DNV : 309L MS (C1) CWB : AWS A5.22 E309LT0-1, E309LT0-4 CCS : 309LS (C1) ABS : E309LT0-1 (C1) BV : 309L (C1) CE EN : 13479

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

Condition	Yield Strength	Tensile Strength	Elongation
M21 Shielding Gas			
As Welded	480 MPa (70 ksi)	600 MPa (87 ksi)	35 %
C1 shielding Gas			
As Welded	410 MPa (59 ksi)	546 MPa (79 ksi)	38 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
C1 shielding Gas		
As Welded	-29 °C (-20 °F)	40 J (30 ft-lb)
As Welded	-196 °C (-321 °F)	15 J (11 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr
75% Ar - 25% CO2						
0.030	1.44	0.80	0.004	0.020	13.0	24.50
100% CO2						
0.032	1.46	0.66	0.004	0.021	12.8	24.50

Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
1.2 mm (0.045 in.)	150-250 A	25-32 V	8.0-16.0 m/min (315-630 in./min)	2.5-7.0 kg/h (5.5-15. lbs/h)
1.6 mm (1/16 in.)	200-350 A	26-34 V	4.0-11.0 m/min (157-433 in./min)	3.0-7.5 kg/h (6.6-16. lbs/h)