

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

ABS : E309LT0-1
BV : 309L (C1)
CCS : 309LS (C1)
CE : EN 13479
CWB : E309LT0-1 (M21)
CWB : E309LT0-4 (C1)
DNV : VL 309L MS (C1)
DNV : VL 309L MS (M21)
NAKS/HAKC : 1.2mm
UKCA : EN 13479
VdTÜV : 06594

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)

Tensile Properties

Testing Condition	Yield Strength	Tensile Strength	Elongation
M21 Shielding Gas			
As Welded	480 MPa	600 MPa	35 %
C1 shielding Gas			
As Welded	410 MPa	546 MPa	38 %

Charpy Testing

Testing Condition	Testing Temp	Impact Value
C1 shielding Gas		
As Welded	-29 °C	40 J
As Welded	-196 °C	15 J

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr
M21 Shielding Gas						
0.030	1.44	0.80	0.004	0.020	13.0	24.50
C1 shielding Gas						
0.032	1.46	0.66	0.004	0.021	12.8	24.50

Deposition Data

Diameter	Amps	Volts	Wire Feed Speed	Deposition Rate
1.2 mm	150-250 A	25-32 V	8.0-16.0 m/min	2.5-7.0 kg/h
1.6 mm	200-350 A	26-34 V	4.0-11.0 m/min	3.0-7.5 kg/h