

Shield-Bright 309L X-tra

Shield-Bright 309L X-tra was developed for the welding of stainless steels to carbon or low alloy steels and for the first layer cladding of carbon and low alloy steels. Shield-Bright 309L X-tra was developed for welding in the flat position and for horizontal fillet welds with flat to concave beads with excellent slag removal. For joining thick sections, it is preferred the non-stainless steel be buttered with a layer of Shield-Bright 309L X-tra and the joint completed with Shield-Bright 316L X-tra or 308L X-tra. The service temperature should not exceed approximately 750°F (399°C).

Approvals	CWB AWS A5.22 E309LT0-1 VdTUV 06594 DNV 309L MS (M21) DNV 309L MS (C1) E309LT0-4 CCS 309LS (C1) ABS E309LT0-1 (C1) BV 309L (C1) CE EN 13479
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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)

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. lb/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. lb/h)