

CORE-BRIGHT 309L

Designed primarily for overlay applications on carbon steel. May also be used for welding 309 stainless and joining dissimilar metals.

Specifications	
Classifications	AWS A5.22 : E309LTO-3
Approvals	ASME SFA 5.22 AWS A5.22 : E309LTO-3 CERTIFIED BY C.W.B. - AWS A5.22

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

Typical Tensile Properties			
Condition	Yield Strength	Tensile Strength	Elongation
As Welded	440 MPa (64 ksi)	630 MPa (91 ksi)	34 %

Deposition Data							
Diameter	Current	Voltage	Wire Feed Speed	Deposition Efficiency (%)	Deposition Type	TTW Dist.	Deposition Rate
1.2 mm (.045 in.)	110 A	26 V	762 cm/min (300 in./min)	86 %	Spray Transfer	19 mm (3/4 in.)	2.6 kg/h (5.8 lbs/h)
1.2 mm (.045 in.)	150 A	27 V	1016 cm/min (400 in./min)	86 %	Spray Transfer	19 mm (3/4 in.)	3.67 kg/h (8.1 lbs/h)
1.2 mm (.045 in.)	180 A	27 V	1270 cm/min (500 in./min)	87 %	Spray Transfer	19 mm (3/4 in.)	4.45 kg/h (9.8 lbs/h)
1.6 mm (1/16 in.)	150 A	27 V	508 cm/min (200 in./min)	87 %	Spray Transfer	19 mm (3/4 in.)	3.08 kg/h (6.8 lbs/h)
1.6 mm (1/16 in.)	210 A	28 V	762 cm/min (300 in./min)	87 %	Spray Transfer	19 mm (3/4 in.)	4.67 kg/h (10.3 lbs/h)
1.6 mm (1/16 in.)	270 A	29 V	1016 cm/min (400 in./min)	85 %	Spray Transfer	19 mm (3/4 in.)	6.12 kg/h (13.5 lbs/h)
2.4 mm (3/32 in.)	250 A	26 V	284 cm/min (112 in./min)	85 %	Spray Transfer	25.4 mm (1 in.)	3.8 kg/h (8.4 lbs/h)
2.4 mm (3/32 in.)	250 A	26 V	338 cm/min (133 in./min)	89 %	Spray Transfer	38 mm (1-1/2 in.)	4.5 kg/h (10.0 lbs/h)
2.4 mm (3/32 in.)	300 A	28 V	345 cm/min (136 in./min)	85 %	Spray Transfer	25.4 mm (1 in.)	4.6 kg/h (10.2 lbs/h)
2.4 mm (3/32 in.)	300 A	28 V	402 cm/min (178 in./min)	89 %	Spray Transfer	38 mm (1-1/2 in.)	6.1 kg/h (13.5 lbs/h)
2.4 mm (3/32 in.)	350 A	29 V	467 cm/min (184 in./min)	88 %	Spray Transfer	25.4 mm (1 in.)	6.3 kg/h (13.9 lbs/h)
2.4 mm (3/32 in.)	350 A	29 V	577 cm/min (227 in./min)	87 %	Spray Transfer	38 mm (1-1/2 in.)	7.8 kg/h (17.1 lbs/h)
2.4 mm (3/32 in.)	400 A	30 V	561 cm/min (221 in./min)	85 %	Spray Transfer	25.4 mm (1 in.)	7.3 kg/h (16.2 lbs/h)
2.4 mm (3/32 in.)	400 A	30 V	767 cm/min (302 in./min)	87 %	Spray Transfer	38 mm (1-1/2 in.)	10.3 kg/h (22.7 lbs/h)
2.4 mm (3/32 in.)	450 A	30 V	693 cm/min (273 in./min)	85 %	Spray Transfer	25.4 mm (1 in.)	9.3 kg/h (20.6 lbs/h)
2.4 mm (3/32 in.)	450 A	30 V	871 cm/min (343 in./min)	87 %	Spray Transfer	38 mm (1-1/2 in.)	11.7 kg/h (25.9 lbs/h)
2.0 mm (5/64 in.)	210 A	24 V	348 cm/min (137 in./min)	86 %	Spray Transfer	19 mm (3/4 in.)	3.2 kg/h (7.1 lbs/h)
2.0 mm (5/64 in.)	250 A	26 V	460 cm/min (181 in./min)	87 %	Spray Transfer	19 mm (3/4 in.)	4.3 kg/h (9.5 lbs/h)

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Diameter	Current	Voltage	Wire Feed Speed	Deposition Efficiency (%)	Deposition Type	TTW Dist.	Deposition Rate
2.0 mm (5/64 in.)	300 A	27 V	599 cm/min (236 in./min)	85 %	Spray Transfer	19 mm (3/4 in.)	5.4 kg/h (12.0 lbs/h)