

# CORE-BRIGHT 309L

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

|                        |                                                                         |
|------------------------|-------------------------------------------------------------------------|
| <b>Classifications</b> | AWS A5.22 : E309LTO-3                                                   |
| <b>Approvals</b>       | CERTIFIED BY C.W.B. - AWS A5.22<br>AWS A5.22 E309LTO-3<br>ASME SFA 5.22 |

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 Rate       | TTW Dist.         | Deposition Efficiency % |
|-------------------|---------|---------|---------------------------|-----------------------|-------------------|-------------------------|
| 1.2 mm (.045 in.) | 110 A   | 26 V    | 762 cm/min (300 in./min)  | 2.6 kg/h (5.8 lb/h)   | 19 mm (3/4 in.)   | 86 %                    |
| 1.2 mm (.045 in.) | 150 A   | 27 V    | 1016 cm/min (400 in./min) | 3.67 kg/h (8.1 lb/h)  | 19 mm (3/4 in.)   | 86 %                    |
| 1.2 mm (.045 in.) | 180 A   | 27 V    | 1270 cm/min (500 in./min) | 4.45 kg/h (9.8 lb/h)  | 19 mm (3/4 in.)   | 87 %                    |
| 1.6 mm (1/16 in.) | 150 A   | 27 V    | 508 cm/min (200 in./min)  | 3.08 kg/h (6.8 lb/h)  | 19 mm (3/4 in.)   | 87 %                    |
| 1.6 mm (1/16 in.) | 210 A   | 28 V    | 762 cm/min (300 in./min)  | 4.67 kg/h (10.3 lb/h) | 19 mm (3/4 in.)   | 87 %                    |
| 1.6 mm (1/16 in.) | 270 A   | 29 V    | 1016 cm/min (400 in./min) | 6.12 kg/h (13.5 lb/h) | 19 mm (3/4 in.)   | 85 %                    |
| 2.4 mm (3/32 in.) | 250 A   | 26 V    | 284 cm/min (112 in./min)  | 3.8 kg/h (8.4 lb/h)   | 25.4 mm (1 in.)   | 85 %                    |
| 2.4 mm (3/32 in.) | 250 A   | 26 V    | 338 cm/min (133 in./min)  | 4.5 kg/h (10.0 lb/h)  | 38 mm (1-1/2 in.) | 89 %                    |
| 2.4 mm (3/32 in.) | 300 A   | 28 V    | 345 cm/min (136 in./min)  | 4.6 kg/h (10.2 lb/h)  | 25.4 mm (1 in.)   | 85 %                    |
| 2.4 mm (3/32 in.) | 300 A   | 28 V    | 402 cm/min (178 in./min)  | 6.1 kg/h (13.5 lb/h)  | 38 mm (1-1/2 in.) | 89 %                    |
| 2.4 mm (3/32 in.) | 350 A   | 29 V    | 467 cm/min (184 in./min)  | 6.3 kg/h (13.9 lb/h)  | 25.4 mm (1 in.)   | 88 %                    |
| 2.4 mm (3/32 in.) | 350 A   | 29 V    | 577 cm/min (227 in./min)  | 7.8 kg/h (17.1 lb/h)  | 38 mm (1-1/2 in.) | 87 %                    |
| 2.4 mm (3/32 in.) | 400 A   | 30 V    | 561 cm/min (221 in./min)  | 7.3 kg/h (16.2 lb/h)  | 25.4 mm (1 in.)   | 85 %                    |
| 2.4 mm (3/32 in.) | 400 A   | 30 V    | 767 cm/min (302 in./min)  | 10.3 kg/h (22.7 lb/h) | 38 mm (1-1/2 in.) | 87 %                    |
| 2.4 mm (3/32 in.) | 450 A   | 30 V    | 693 cm/min (273 in./min)  | 9.3 kg/h (20.6 lb/h)  | 25.4 mm (1 in.)   | 85 %                    |
| 2.4 mm (3/32 in.) | 450 A   | 30 V    | 871 cm/min (343 in./min)  | 11.7 kg/h (25.9 lb/h) | 38 mm (1-1/2 in.) | 87 %                    |
| 2.0 mm (5/64 in.) | 210 A   | 24 V    | 348 cm/min (137 in./min)  | 3.2 kg/h (7.1 lb/h)   | 19 mm (3/4 in.)   | 86 %                    |
| 2.0 mm (5/64 in.) | 250 A   | 26 V    | 460 cm/min (181 in./min)  | 4.3 kg/h (9.5 lb/h)   | 19 mm (3/4 in.)   | 87 %                    |
| 2.0 mm (5/64 in.) | 300 A   | 27 V    | 599 cm/min (236 in./min)  | 5.4 kg/h (12.0 lb/h)  | 19 mm (3/4 in.)   | 85 %                    |