

# TECHNICAL DATA SHEET

## BlackBrite®

**Finish Description:** Lorin's BlackBrite® anodized aluminum finish is a deep black, mirror-like finish. The BlackBrite® finish utilizes a specialized impregnated dye process that provides a very uniform and consistent finish. Interior designers love the rich look of this surface and can create a multitude of unique designs for decorative interior applications.

### Reference Part Number (s)

0406-350-001

### Industry Designations

#### Aluminum Association

AA-M11-C31-A21

#### Mil A-8625F Classification

Type II Sulfuric Anodize

### Industry Standards

#### ISO 9001: 2008

Quality management system

#### Mil A-8625F Anodizing Standard

Anodic coatings for aluminum and aluminum alloys

### Aluminum Properties

**Alloy:** 5657

**Temper:** H25

**Finish:** One-Side Bright (OSB)

### Mechanical Properties

**UTS:** 20ksi [138MPa]- 28ksi [193MPa]

**YTS:** Not specified

**Elongation:** 8% minimum

**Bend Radii:** Recommended 1t min

### Chemical Properties

**Si:** 0.08 %

**Fe:** 0.10 %

**Cu:** 0.10 %

**Mn:** 0.03 %

**Mg:** 0.6 - 1.0 %

**Zn:** 0.05 %

**Ga:** 0.03%

**V:** 0.05 %

**Other:** 0.05%

**Al:** Remainder

### Stock Gauge Availability <sup>1</sup>

0.016" (0.4 mm)

0.025" (0.6 mm)

0.030" (0.8 mm)

0.040" (1.0 mm)

### Stock Width Availability <sup>2</sup>

48.0" (1219 mm)

48.5" (1232 mm)

### Anodize Film Thickness

#### Exterior Standard #1:

0.350 mils [9.0 μm]

### Anodize Finish Properties

**Optical:** Chemically Brightened

**Gloss:** Not applicable

**Color :** D406, Brite Black

**Color Target:** < Δ Delta E of 8.0

**UV Stable:** No

**Environment:** Interior

**Seal:** S3, Duplex Seal III

**Quality Grade:** 2

**Other:**

**Footnotes:** 1 - Other gauges can be custom ordered. 2 - Other widths can be custom ordered.



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### Aluminum Secondary Services

- Shearing, Width Capabilities:**  
7" (178mm) - 62" (1575 mm)
- Shearing, Length Capabilities:**  
Up to 192" (4876 mm)
- Shearing, Loading Gauge:**  
Up to 0.080" (2.0 mm)
- Slitting, Width Capabilities:**  
0.75" (19 mm) min
- Slitting, Loading Gauge:**  
Up to 0.100" (2.5 mm)
- Other Secondary Services:**  
Protective peel-able films  
International packaging  
Perforating and embossing

### Maintenance and Cleaning

The anodized aluminum finish can be washed with mild soap and water followed by a clean water rinse. For more information on cleaning anodized aluminum, please refer to the Aluminum Association Publication 92, Care of Aluminum or AAMA 609 & 610-09, Cleaning and maintenance guide for architecturally finished aluminum.

### Sustainability and LEED

- Recycled Content:**  
100% recyclable  
Recycled Content = 0 %
- Volatile Organic Compounds:**  
The aluminum oxide layer does not contain any VOC's

### Availability

The standard lead time for stocked gauges and widths is two weeks for anodizing and one week for any secondary services such as slitting, shearing and applying transparent protective films or paper.

Please check availability of Non-Stocked materials by contacting our sales staff using our toll free number 800.654.1159 or email your request to [info@lorin.com](mailto:info@lorin.com). Some raw materials may have extended lead times.

### Technical Support

A staff of factory trained personnel are available to offer technical assistance. Please call our toll free number 800.654.1159 or email your question to [info@lorin.com](mailto:info@lorin.com).

### Product Support Partners

Lorin Industries works very closely with many manufacturers' in multiple markets who specialize in anodized aluminum fabrication. Our support staff can assist you if you are looking for finished components. Please call our toll free number 800.654.1159 or email your request for product and application support to [info@lorin.com](mailto:info@lorin.com).

### Warranty

A limited warranty may be available upon request. The warranty is issued on a per project basis and can be applied for on line by completing an application for warranty at [www.Lorin.com](http://www.Lorin.com)

### Anodized Finish Test Data

| Characteristic         | Test Method                           | Standard  | Test Results  |
|------------------------|---------------------------------------|---|---|
| Oxide Layer, Thickness | ASTM B244 - Eddy current method       | AA Protective & Decorative coating less than 10.2 µm (0.400 mils) maximum | Nominal Target, 8.9 µm (0.350 mils)                 |
| Oxide Layer, Weight    | ASTM B137 - Coating Dissolution       |   | > 2.1 mg/cm <sup>2</sup> (13.6 mg/in <sup>2</sup> ) |
| Color Uniformity       | ASTM B2244 - Calculation Δ in Delta E | Color must meet agreed upon specification                                 | Lorin Color D406, Δ in Delta E ≤ 4.0                |
| Film Hardness          | ASTM D3363 - Pencil Hardness          | Based on anodic thickness, 6 µm (0.250 mils)                              | 9H Hardness   |
| Seal Quality           | ASTM B136 - Dye Stain                 | Dye Stain Test  | Pass, No Visible Stain                              |

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