



## LORIN'S COPPERBRITE® IS RICH FINISH THAT SIMULATES POLISHED COPPER.

The anodized surface protects the aluminum from oxidizing (patina), not like unprotected natural copper. Natural copper is extremely expensive as compared to aluminum and to avoid oxidizing (patina), must be coated which adds additional cost. Lorin's CopperBrite® will solve both of these issues.

### INDUSTRY DESIGNATIONS

#### Aluminum Association

AA-M11-C31-A23

#### Mil A-8625F Classification

Type II Sulfuric Anodize

### INDUSTRY STANDARDS

#### Mil A-8625F Anodizing Standard

Anodic coatings for aluminum and aluminum alloys

### ALUMINUM PROPERTIES

Alloy ..... 5657  
Temper ..... Half Hard  
Finish ..... One Side Bright (OSB)

### MECHANICAL PROPERTIES

UTS ..... 20ksi [138MPa]- 28ksi [193MPa]  
YTS ..... Not specified  
Elongation ..... 8% minimum

### CHEMICAL PROPERTIES

Si ..... 0.08 %  
Fe ..... 0.10 %  
Cu ..... 0.10 %  
Mn ..... 0.03 %  
Mg ..... 0.60 - 1.0 %  
Zn ..... 0.05 %  
Ga ..... 0.03 %  
V ..... 0.05 %  
Other ..... 0.05 %  
Al ..... Remainder

### ANODIZE FILM THICKNESS

Decorative Anodic layer:

### ANODIZE FINISH PROPERTIES

Optical ..... Chemically Brightened  
Gloss ..... N/A  
Color ..... Medium Copper  
Color Target ..... < Delta E of 8.0  
UV Stable ..... No  
Environment ..... Interior  
Quality Grade ..... 2  
Other ..... None

### WIDTH AVAILABILITY

48.0" (1219 mm)  
48.5" (1232 mm)

*Other widths can be custom ordered.*

### GAUGE AVAILABILITY

0.016" (0.4 mm)  
0.025" (0.6 mm)  
0.030" (0.8 mm)  
0.040" (1.0 mm)

## ANODIZED FINISH TEST DATA

| CHARACTERISTIC      | TEST METHOD                           | STANDARD  | TEST RESULTS                                     |
|---------------------|---------------------------------------|---|--|
| Oxide Layer, Weight | ASTM B137 - Coating Dissolution       |   | 0.8 mg/cm <sup>2</sup> (4.8 mg/in <sup>2</sup> ) |
| Color Uniformity    | ASTM B2244 - Calculation Δ in Delta E | Color must meet agreed upon specification           | Lorin Color D212, Δ in Delta E ≤ 6.0             |
| Film Hardness       | ASTM D3363 - Pencil Hardness          | Based on a anodic film thickness, 3 μm (0.125 mils) | 4H Hardness                                      |
| Seal Quality        | ASTM B136 - Dye Stain                 | Dye Stain Test                                      | Pass, No Visible Stain                           |

### 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, 5005 alloy:**

100% recyclable

Recycled Content, 0.0%

**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 is 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 [Lorin.com](http://Lorin.com).