

Finish Description: Lorin's PreMirror® 11 Optima finish is a semi-specular anodized aluminum finish developed to provide lighting engineers with a high quality reflective surface that minimizes iridescence while offering additional protection for exterior applications.

Reference Part Number (s)

0312-225-002

Industry Designations

Aluminum Association

AA-M11-C32-A21

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: 1085

Temper: H18

Finish: BMF

Mechanical Properties

UTS: 20 ksi min [138 MPa]

YTS: 17 ksi min [117 MPa]

Elongation: 2% min

Bend Radii: Recommended 3t min

Chemical Properties

Si: 0.10 %

Fe: 0.12 %

Cu: 0.04—0.06 %

Zn: 0.03 %

Ti: 0.04 %

Ga: 0.03 %

Others: 0.01 %

Al: Remainder

Stock Gauge Availability ¹

0.020" (0.5 mm)

0.025" (0.6 mm)

Stock Width Availability ²

48.5" (1232 mm)

Anodize Film Thickness

Decorative Anodic Layer:

0.225 mils [5.7 μm]

Anodize Finish Properties

Optical:

Rs: 46-60

D/I: 80-100

15 Degree: 0-0.05

60° with Grain: 640-870

60° against Grain: 560-890

Gloss: Not applicable

Color : Natural Aluminum

Color Target: Not applicable

UV Stable: Yes

Environment: Exterior

Seal: S3, Duplex Seal III

Quality Grade: 2

Other:

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



PreMirror® 11 Optima

TECHNICAL DATA SHEET

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. 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.

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.

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

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, 5.7 µm (0.225 mils) |
| Oxide Layer, Weight | ASTM B137 - Coating Dissolution | | > 1.4 mg/cm ² (8.7 mg/in ²) |
| Film Hardness | ASTM D3363 - Pencil Hardness | Based on an anodized film thickness of 6 µm (0.250 mils) | 9H hardness |
| Corrosion Resistance | ASTM B117 - Neutral Salt Spray | 500 hours, No visible pits | Pass, No visible pits |
| Seal Quality | ASTM B136 - Dye Stain | Dye Stain Test | Pass, No Visible Stain |

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