

AlumaPlus® Matt Mill Finish

TECHNICAL DATA SHEET

Finish Description: AlumaPlus® Matt Mill Finish is a product developed by Lorin Industries specifically for general use and interior applications. AlumaPlus® Matt Mill Finish has a thin anodize film thickness that make it quite versatile for many applications while providing the designer with an attractive alternative to stainless steel. The smooth surface and soft-gray color provides an elegant finish that simulates the appearance of a matt stainless steel without the huge price tag.

Reference Part Number (s)

1010-175-025 1010-175-011

Industry Designations

Aluminum Association

AA-M12-C23-A23

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: 5005

Temper: H34

Finish: Mill Finish

Mechanical Properties

UTS: 20-26 ksi [138-179 MPa]

YTS: 15 min [103 MPa]

Elongation: 4% - 5% min

T Bend: Recommended 1t - 2t, min

Chemical Properties

Si: 0.30 %

Fe: 0.7 %

Cu: 0.20 %

Mn: 0.20 %

Mg: 0.50—1.1 %

Cr: 0.10 %

Zn: 0.25 %

Other: 0.15 %

Al: Remainder

Stock Gauge Availability ¹

0.032" (0.8 mm)

0.040" (1.0 mm)

0.050" (1.3 mm)

0.063" (1.6 mm)

0.080" (2.0 mm)

Stock Width Availability ²

48.0" (1219 mm)

Anodize Film Thickness

Decorative Anodic Layer:

0.175 mils [4.4 μm]

Anodize Finish Properties

Optical: Not Applicable

Gloss: Coarse Matte

Color: D381, AlumaPlus

Color Target: < Delta E of 5.0

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.



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, 5005 alloy:**
100% recyclable
Recycled Content, 6.6%
Reclaimed-Virgin Material, 93.4%
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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 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 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	Target Nominal, 4.4 µm (0.175 mils)
Oxide Layer, Weight	ASTM B137 - Coating Dissolution		1.0 mg/cm ² (6.8 mg/in ²)
Color Uniformity	ASTM B2244 - Calculation Δ in Delta E	Meet the agreed upon color specification	Lorin Color D381, Δ in Delta E ≤ 3.0
Gloss Uniformity	ASTM D523 - 60° Gloss Reflectance	Coarse , Matte Finish	Lorin Gloss E77, Target Nominal 10
Film Hardness	ASTM D3363 - Pencil Hardness	Based on an anodic thickness, 3 µm (0.125 mils)	4H Hardness
Seal Quality	ASTM B136 - Dye Stain	Dye Stain Test	Pass, No Visible Stain

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