

LORIN

LA Extra Dark Bronze ColorIn®

TECHNICAL DATA SHEET

Finish Description: LA Extra Dark Bronze ColorIn® is a finish developed for general applications. The LA Extra Dark Bronze ColorIn® finish utilizes a specialized anodizing process using a two-step electrolytic coloring system. The combination of a 0.250 film thickness with the inorganic coloring chemistry provides excellent corrosion resistance and will maintain color consistency throughout its lifetime.

Reference Part Number (s)

0920-250-013

Industry Designations

Aluminum Association

AA-M12-C23-A34

Mil A-8625F Classification

Type II Sulfuric Anodize

Industry Standards

AAMA 611-12

Voluntary specification for anodized architectural aluminum

ISO 9001: 2015

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

Architectural Class II:

0.250 mils [6.4 μm] minimum

Anodize Finish Properties ³

Optical: Not Applicable

Gloss: Coarse Matte

Color : D045, LA Extra Dark Bronze

Color Target: < Delta E of 5.0

UV Stable: Yes

Environment: Exterior

Seal: S3, Duplex Seal III

Quality Grade: 2

Other: ColorIn®

Footnotes: 1 - Other gauges can be custom ordered. 2 - Other widths can be custom ordered. 3 - Panel-to-Panel match quality 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%
2012.04.30 Mill6
- 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 20 year 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	AAMA 611-12, 10 µm (0.250 mils) min	Nominal Target, 6.4 µm (0.250 mils)
Oxide Layer, Weight	ASTM B137 - Coating Dissolution	AAMA 611-12, > 1.5mg/cm ² (9.7mg/in ²)	> 1.5mg/cm ² (9.7mg/in ²)
Color Uniformity	ASTM B2244 - Calculation Δ in Delta E	AAMA 611-12, Color must meet agreed upon specification	Lorin Color D045, Δ in Delta E ≤ 2.7
Gloss Uniformity	ASTM D523 - 60° Gloss Reflectance	Coarse, Matte Finish	Lorin Gloss E1A, Nominal Target 20
Film Hardness	ASTM D3363 - Pencil Hardness	Based on a anodic film thickness, 6.4 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	Pass, No Visible Pits

Copyright and Disclaimer: The information described in this document is proprietary to Lorin Industries Inc. and is made available for information only. The test data contained in this document is the most current test data available at the time of printing. If you have any questions about the content or updated information, please contact us by email at info@lorin.com or call our toll-free number listed below.

◆ Toll Free 800.654.1159 ◆ International 231.722.1631 ◆ www.Lorin.com ◆ info@lorin.com ◆

