

TECHNICAL DATA SHEET

AnoGrip® Type 4

Finish Description: Our customers asked us to develop an anodized aluminum finish that will accept all types of adhesives without having to apply a primer coat or the need to treat the surface with *Hexavalent Chrome*, a known carcinogen. AnoGrip® Type 4 is a process that offers the customer an anodized aluminum finish with exceptional adhesive qualities on both sides of the sheet that will withstand a T-peel strength of at least 20 lbs/in². The chemical process refined by Lorin, increases the surface area creating a bondable surface that accepts many substrates such as resin soaked papers, MDF board, Plywood, PVC, and several other bonding materials.

Reference Part Number (s)

0614-010-003

Industry Designations

Aluminum Association
AA-M12-C20-A1x

Industry Standards

ISO 9001: 2008
Quality management system

Aluminum Properties

Alloy: 5052
Temper: H32
Finish: Mill Finish

Mechanical Properties

UTS: 31-38 ksi [214 - 262 MPa]
YTS: 23 min [159 MPa]
Elongation: 4% min
T Bend: Recommended 1t minimum

Chemical Properties

Si: 0.25 %
Fe: 0.40 %
Cu: 0.10 %
Mn: 0.10 %
Mg: 2.2 - 2.8 %
Cr: 0.15 - 0.35 %
Zn: 0.10 %
Other: 0.15 %
Al: Remainder

Stock Gauge Availability ¹

0.025" (0.6 mm)

Stock Width Availability ²

50.0" (1270 mm)

Anodize Film Thickness

Functional Anodic Layer:
0.010 mils [0.3 μm]

Anodize Finish Properties

Optical: Not Applicable
Gloss: Not Applicable
Color : Clear Anodized
Color Target: Not Applicable
UV Stable: Not Applicable
Environment: Not Applicable
Seal: S7, Specially Treated HWO Seal
Quality Grade: 5
Other:

Adhesion Properties

Adhesion Quality:
T-Peel Strength > 20 lbs/in; Using 1.6-mil 3M DP-420 Adhesive, Cured at 230-250°F for 60 ± 5 minutes.

Shelf-Life:

Recommended 6 months maximum

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:**
International packaging

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, 5052 alloy:**
100% recyclable
Post-Consumer, 0 %
Secondary Material, 38 %
Virgin Material, 62 %

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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 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, Weight	ASTM B137 - Coating Dissolution		Typically < 0.2 mg/cm ² (1.2 mg/in ²)
Adhesion Quality	ASTM D1876 - T-peel resistance test using 1.6mil 3M DP-420 adhesive	Lorin Commercial Standard	> 20 lbs/in ² peel strength

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

