



OUR CUSTOMERS ASKED US TO DEVELOP A HIGH QUALITY ANODIZED ALUMINUM FINISH THAT WILL ACCEPT ADHESIVES WITHOUT HAVING TO APPLY A PRIMER COAT.

ClearMatt® with Adhere® is a patented process developed by Lorin Industries that offers the customer an anodized aluminum finish on the top, good-side with exceptional adhesive qualities on the back-side of the sheet. This patented chemical process increases the surface area creating a bondable surface that accepts many different adhesives to adhere common substrates such as resin soaked papers, MDF board, Plywood, PVC, and other materials. The Adhere® process can be applied to many Lorin Anodized colors and finishes.

INDUSTRY DESIGNATIONS

Aluminum Association
AA-M12-C22-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 5005
Temper Half Hard
Finish Mill Finish

MECHANICAL PROPERTIES

UTS 20-26 ksi [138-179 MPa]
YTS 15 min [103 MPa]
Elongation 4% - 5% 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

ANODIZE FILM THICKNESS

Exterior Standard #1:

ANODIZE FINISH PROPERTIES

Optical N/A
Gloss Medium Matte
Color Natural Aluminium
Color Target N/A
UV Stable Yes
Environment Exterior
Quality Grade 2
Other Back of sheet with Adhere®

WIDTH AVAILABILITY

48.0" (1219 mm)
48.5" (1232 mm) 0.025" (0.6mm) only

GAUGE AVAILABILITY

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)

ADHERE 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.

ANODIZED FINISH TEST DATA

| CHARACTERISTIC | TEST METHOD | STANDARD | TEST RESULTS |
|----------------------|------------------------------------|---|---|
| Oxide Layer, Weight | ASTM B137 - Coating Dissolution | | > 1.5 mg/cm ² (9.7 mg/in ²), Top-Side Anodized Surface |
| Gloss Uniformity | ASTM D523 - 60° Gloss Reflectance | Medium Coarse, Matte Finish | Lorin Gloss E1H, Nominal Target 50 |
| Film Hardness | ASTM D3363 - Pencil Hardness | Based on a anodic film thickness, 6.4 µm (0.250 mils) | 9H Hardness, Top-Side Anodized Surface Only |
| Corrosion Resistance | ASTM B117 - Neutral Salt Spray | 500 hours, No Visible Pits | Pass, No visible pits, Top-Side Anodized Surface Only |
| Adhesion Quality | ASTM 1876 - T-peel resistance test | Lorin Commercial Standard | > 20 lbs/in ² peel strength, Back-Side Adhere® Surface |
| Seal Quality | ASTM B136 - Dye Stain | Dye Stain Test, No Stain Visible | Pass, No Stain Visible |

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 Mill#6
- 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 Lorin.com.

