

## Architectural Brilliance

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Create a striking entryway graced by columns that sparkle in the sun.  
Gently illuminate a hallway with shimmering accent panels and trim.  
What material creates this magic of light and mood?

### **Anodized Aluminum!**

Anodized aluminum is a beautiful, strong, cost-effective material that is transforming the architectural world from the inside out.



## Why Choose Anodized Aluminum for your Next Architectural Project?

### **Naturally Beautiful**

The anodizing process allows the natural beauty of the aluminum surface to shine through, unlike other coating and finishing processes. Our products are naturally protected through the clear anodic film and offer infinite combinations of aluminum finishes, anodized finishes, colors and post anodized embossing.

### **Tough Performance – Low Maintenance**

The durable, low-maintenance anodized surface resists scratches, is dent resistant, will never corrode, flake or peel and cleans up easily with simple soap and water.

### **Reduced Weight – Enhanced Profitability**

Anodized aluminum products weigh approximately sixty percent less than other metals including painted steel, copper, brass and stainless steel – giving you more pieces per pound and reduced inventory and transportation costs.

### **Environmentally Responsible**

Anodized aluminum can even help in securing LEED (Leadership in Energy and Environmental Design) points.

#### *Energy & Atmosphere Category Points*

Our ClearMatt products meet EnergyStar standards for total solar reflectance and thermal emittance.

#### *Materials & Resources Points*

The strict visual requirements of the architectural market prohibit high-recycle content aluminum use for anodizing – however our material is 100% recyclable at the back-end, and new initiatives are underway to create a LEED-friendly aluminum alloy for anodizing. Finally,

#### *Indoor Environmental Quality Points*

Anodized aluminum products do not outgas or emit toxic fumes like other coated materials. The anodizing process is 100% natural and will not negatively impact air quality.

Why Not Anodized?		
	Air Vents & Duct Covers	Fascias
	Aluminum Composite Panels	Garage Door Inserts
	Awnings	High Pressure Laminate Panels
	Car Ports	House Numbers
	Carpet Bars	Insulated Window Spacer Bars
	Ceiling Panels & Grids	Interior Signage
	Column Covers	Mailboxes
	Column Covers	Metal Doors
	Curtain Walls	Patio Covers
	Decorative Trim & Edge Banding for	Roofing
	Doors & Wall Panels	Signage
	Door Hardware Components	Store Fronts
	Door Kick Plates & Push Plates	Storm Doors
	Elevator & Escalator Panels	Switch Plate & Electronic Outlet Covers

**Anodic Film Standards** When using anodized aluminum in an architectural application, it is important to specify the appropriate anodic film to give the finished product the right amount of protection for the environment it will be exposed to.

Standard	Film – Mils	Film – Microns
Non-Standard Flash	< 0.100	< 2.5
Interior Commercial Standard	0.100 – 0.200	2.5 – 5.1
Exterior Standard No. 1	0.200 – 0.300	5.1 – 7.6
Exterior Standard No. 2	0.300 – 0.400	7.6 – 10.2
Architectural Class II	0.400 – 0.700	10.2 – 17.8
Architectural Class I	> 0.700	> 17.8

## Architectural Portfolio

Lorin Product	Aluminum Finish	Anodize Finish	Color	UV Stable
<b>Commercial Gage Product Solutions</b>				
AlumaPlus LL	Long Line Brush	Brightened	Stainless Grey	N
AlumaPlus Matte	Mill Finish	Matte	Stainless Grey	N
AlumaPlus Polished	Mill Finish	Brightened	Stainless Grey	N
AlumaPlus SL	Short Line Brush	Brightened	Stainless Grey	N
Antique Copper	Various	Matte	Lt Antique Copper	Y
BlackBrite	Bright Finish	Brightened	Black	N
ClearBrite	Bright Finish	Brightened	Clear	Y
ClearBrite Brushed SL	Short Line Brush	Brightened	Clear	Y
ClearBrite Ultra	Bright Finish	Brightened	Clear	Y
ClearMatt	Mill Finish	Matte	Clear	Y
ClearMatt Brushed SL	Short Line brush	Matte	Clear	Y
ColorIn – Black	Mill / Brushed	Matte	Black	Y
ColorIn – Dark Bronze	Mill / Brushed	Matte	Dark Bronze	Y
ColorIn – Extra Light Bronze	Mill / Brushed	Matte	Extra Light Bronze	Y
ColorIn – LA Extra Dark Bronze	Mill / Brushed	Matte	Dark Bronze	Y
ColorIn – Light Bronze	Mill / Brushed	Matte	Light Bronze	Y
ColorIn – Medium Bronze	Mill / Brushed	Matte	Medium Bronze	Y
CopperBrite	Bright Finish	Brightened	Copper	N
CopperMatt Brush	Short Line Brush	Matte	Copper	N
GoldBrite	Bright Finish	Brightened	Medium Gold	Y
GoldBrite Brushed SL	Short Line Brush	Brightened	Medium Gold	Y
GoldBrite Ultra	Bright Finish	Brightened	Medium Gold	Y
GoldMatt – Dark Gold	Mill Finish	Matte	Dark Gold	Y
GoldMatt – Medium Gold	Mill Finish	Matte	Medium Gold	Y
GoldMatt Brushed SL	Short Line Brush	Matte	Medium Gold	Y
SmokeBrite	Bright Finish	Brightened	Smoke	N
SmokeMatt Brushed SL	Short Line Brush	Matt	Smoke	N
<b>Lighting Product Solutions</b>				
DuraMatt 3000	Mill Finish	Brightened	Clear	Y
PreMirror 11	Bright Finish	Brightened	Clear	Y
PreMirror 41	Bright Finish	Brightened	Clear	Y
<b>Functional Product Solutions</b>				
AnoGrip	Mill Finish	AnoGrip	Clear	Y
<b>Foil Gage Product Solutions</b>				
Stainless LL	Long Line Brush	Brightened	Stainless Grey	N
Stainless MF	Mill Finish	Matte	Stainless Grey	N
NaturalMatt 50 Gloss	Mill Finish	Matte	Clear	Y
NaturalMatt Butler Brush	Butler Brush	Matte	Clear	Y

## Product Enhancements, Standards & General Information

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<b>Adhere</b>	Most interior grade products are available with Adhere on the backside. Additional charges and minimum order quantities apply to all products with Adhere.
<b>Color Stability</b>	Not all products in our portfolio are UV stable and will fade with direct exposure to sunlight over time. These products are identified in the Product Solutions section of this file as well as on their respective SpecData sheets. If additional coatings will be applied to your finished product, consider utilizing an UV stable coating to maintain the anodized color.
<b>High Pressure Laminate Applications</b>	<p>Lorin products have successfully performed within High Pressure Laminate (HPL) process under the following conditions:</p> <ul style="list-style-type: none"><li>• 320 Degree Fahrenheit heat</li><li>• High Pressure / High Heat – 1 hour</li><li>• Bonded with a phenolic resin soaked core sheet.</li></ul> <p>If you are using a process outside of the HPL process outlined above, we encourage you to purchase a small quantity of anodized aluminum to confirm product performance within your own process prior to ordering full production quantities.</p>
<b>Material Inspection</b>	Material is reviewed for visual consistency from edge to edge at a distance of 5 feet or 1.5 meters looking straight at the material hanging from a vertical surface.
<b>Surface Protection</b>	Lorin recommends that surface protection be applied to all specular / high reflective finish products as well as any anodized product with a thin anodic film to reduce surface scratching during the production process.
<b>Visual Standards &amp; Limitations</b>	Due to deviations which are inherent to the raw aluminum surface, anodized aluminum products may display a range of color shades which do not indicate a product defect. Please confirm with your Inside Sales / Sales Manager if your order is for standard inventory stock or a specific product that requires consistency throughout. Aluminum finishes are directional by nature and may show a color shift or shift in visual appearance when viewed at different angles. Please communicate running direction at time of assembly or finished product production.

## Fabrication Characteristics

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### Bending (Brake Press)

- Handling pre-anodized stock has been found to be similar to handling other metals.
- Half hard tempers are most often used because of their formability and structural integrity.
- Where possible, use scrap material to adjust the depth of stroke required to accomplish the desired bend.
- Gradual bending of the material will help to minimize crazing of the anodic film.
- Strippable surface protection will protect the anodized surface during the bending process.

### Laminating

- Polyfilm surface protection is helpful and can be left on throughout the production process.
- Clean the substrate with a clean brush prior to laminating.
- Cut the sheet to size using sharp shears or a saw.
- Consider experimenting with saw and feed speed on scrap material prior to full production runs.
- Cut into the sheet so that the rough edges are on the back-side.
- Spray-guide contact adhesives work best. Apply them on the anodized aluminum first, then on the core material.

### Roll Forming

- In many cases, no tooling changes are required when transitioning from other metals to anodized aluminum.
- Pre-anodized aluminum will take all minimum bend-radii as specified by the Aluminum Association.
- As with other metals, tooling should be kept polished.
- Chrome-plated rolls typically perform the best.
- Using surface protection will sometimes eliminate the need for lubricants.

### Stamping & Blanking

- No major modifications in tool design are necessary.
- Consider reducing male-female die clearance to 2%-8%.
- Keep dies sharp.
- Consider adding a looping pit ahead of the press allows for smooth coil feeding.
- Synthetic grippers on feed work best.
- Lubricants may be eliminated, depending on the process.
- Use lint-less gloves when handling pre-anodized stock.
- Anodized blanks are protected and stackable.