

# TRANSPORTATION



SPRING 2018

**LORIN**

[www.lorin.com](http://www.lorin.com)

Luxury performance no longer demands a luxury price tag. No matter what signature look you're trying to create for your transportation designs, anodized aluminum can accelerate it. Choose from natural metallic finishes, virtually limitless color hues, or both to create bold looks on any budget. Three times tougher than the raw material, 60 percent lighter than competing metals, and corrosion resistant, anodized performs at all speeds.



## ILLUMINATED DETAILING

For automobiles to aircrafts, monorails to marine crafts, anodized aluminum illuminates interiors unlike any other. A tough, transparent oxide layer makes brilliant detailing glisten and won't scratch, peel or flake. And with our UV-stable ColorIn® series, fading is kept far, far away.





## GRIPPING POWER

No matter what surface anodized aluminum needs to adhere to, we have a patented solution for that. When you need an adhesive-promoting surface on both sides, AnoGrip® ensures no delamination. When you want the beauty of aluminum on one side with a laminated-something on the other, Adhere® enables gluing without primer — allowing quick, solid attachment to anything like resin-soaked papers, MDF board, foam installation or various sound-deadening materials.

## SLIM, SOLID & STRONG

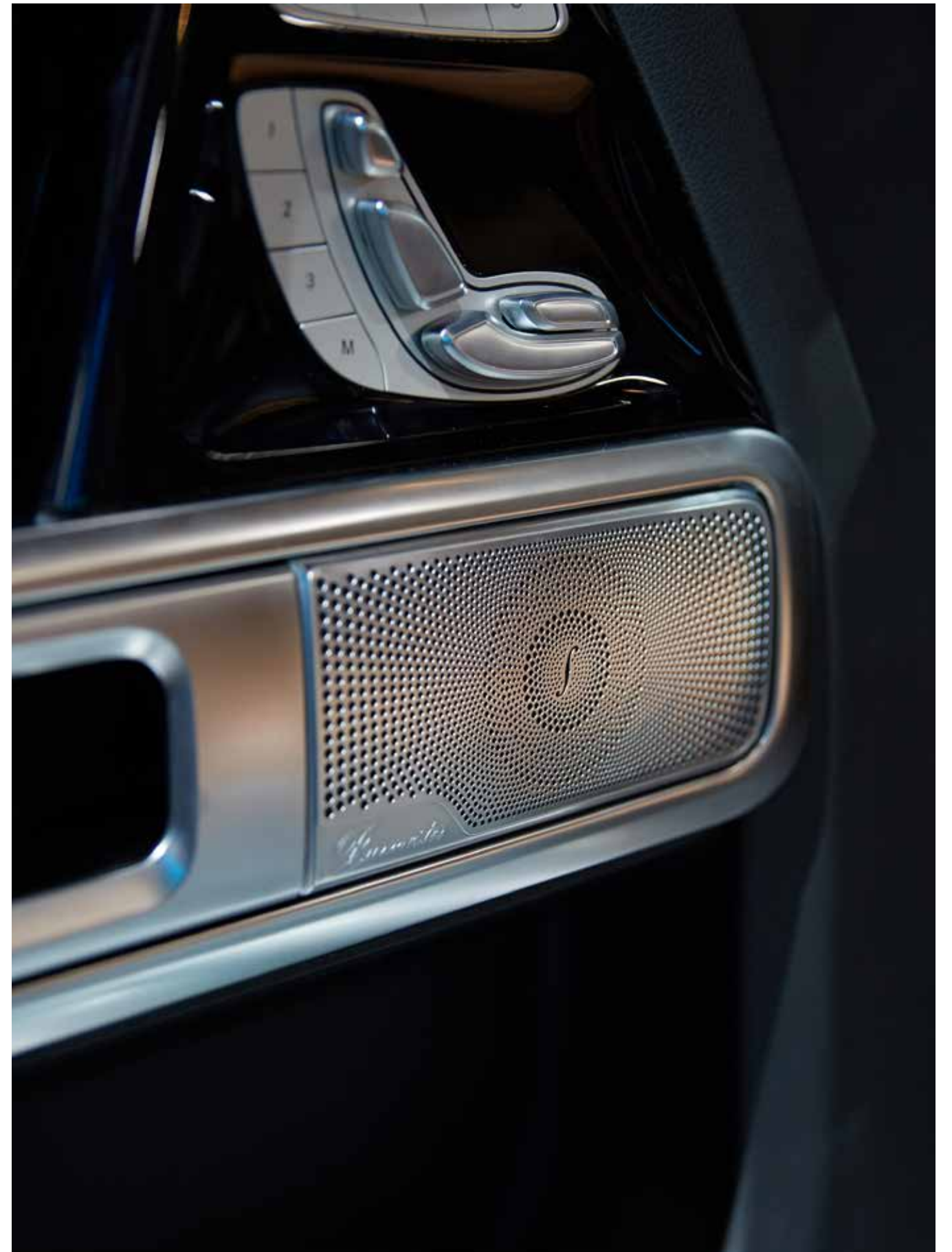
Three times harder than the raw material, anodized aluminum provides a natural abrasion resistance not found in other metals. Its corrosion-resistant, rust-free qualities are enough to make anodized preferred by many. Also being 60 percent lighter than copper, brass and stainless steel, transportation industries can't get enough. Combined with the coil anodizing process, the entire shipping, handling and manufacturing process is more efficient with less damage—resulting in a formable, lightweight material that lasts and lasts.





## A STRIKING LOOK THAT LASTS

The coil anodizing process electrochemically seals the color into the aluminum surface itself. This ensures consistent, fade-resistant colors that won't chip, flake or peel. Color matching is a cinch too, for any hue or metallic look you can dream up. And for the finishing touch: bright, matte, clear, brush-stroked—the options with anodized are endless.





## SAFE FOR ALL

Not only is aluminum the Earth's most abundant element, it is also 100% indefinitely recyclable as its structure doesn't deteriorate when reprocessed.

And unlike other materials, anodized aluminum does not flame, smoke, contain volatile organic compounds or emit toxic fumes. No matter if you're in the air or on the waves, that's a clean bill of health for everything and everyone.





## A MANIFESTO

At Lorin, we believe in aluminum. We believe in its possibilities—to become whatever a dreamer can dream, applied to anything from aircraft to appliances. We believe in its strength—to be cut, color matched, embossed, perforated, hammered, and still withstand the test of time. We believe in aluminum because we've seen what it can do.

Since 1943, we have been improving the process, further solidifying Lorin's global leadership in creating the most unique and durable finishes ever made. Throughout the journey, we've adopted smarter, environmentally sustainable methods. We've changed the game with anodized aluminum, our infinite colors and unmatched longevity is making it the premier solution for more and more designers worldwide.

Forget your perceptions. This is a new kind of aluminum. Polished, powerful, and dynamic. Reflect the beauty of anodized. Reflect your vision with Lorin.

# HOW WE DO IT

Coil anodizing is an electrochemical process, not an applied coating. The end result is nothing short of scientific magic with nearly limitless design possibilities and coil-loads of efficiencies. To let you in on the secret, here's how it works.

## The Coil Anodizing Process

At Lorin, we start with the highest-grade of anodized quality (AQ) metal. Arriving coiled, the raw aluminum is unwound and pulled through a series of tanks, each playing

a vital role. It is cleaned, anodized, colored, sealed, then rewound in one continuous process. Afterwards, we cut the material and deliver ready-to-fabricate all in one stop.

### Step 1: Cleaning

Raw aluminum is covered in mill oils. The cleaning tank is exactly that: ensuring all contaminants are washed away so the final surface is flawless.

### Step 2: Pre-treatment

Depending on the desired finish, the pre-treatment wash could be chemically:

- Etched, removing a thin surface layer of the raw aluminum creating a matte look.
- Brightened to smooth the surface and heighten its reflectiveness.
- Electropolished as a more eco-friendly alternative for a chrome aesthetic.

### Step 3: Anodizing

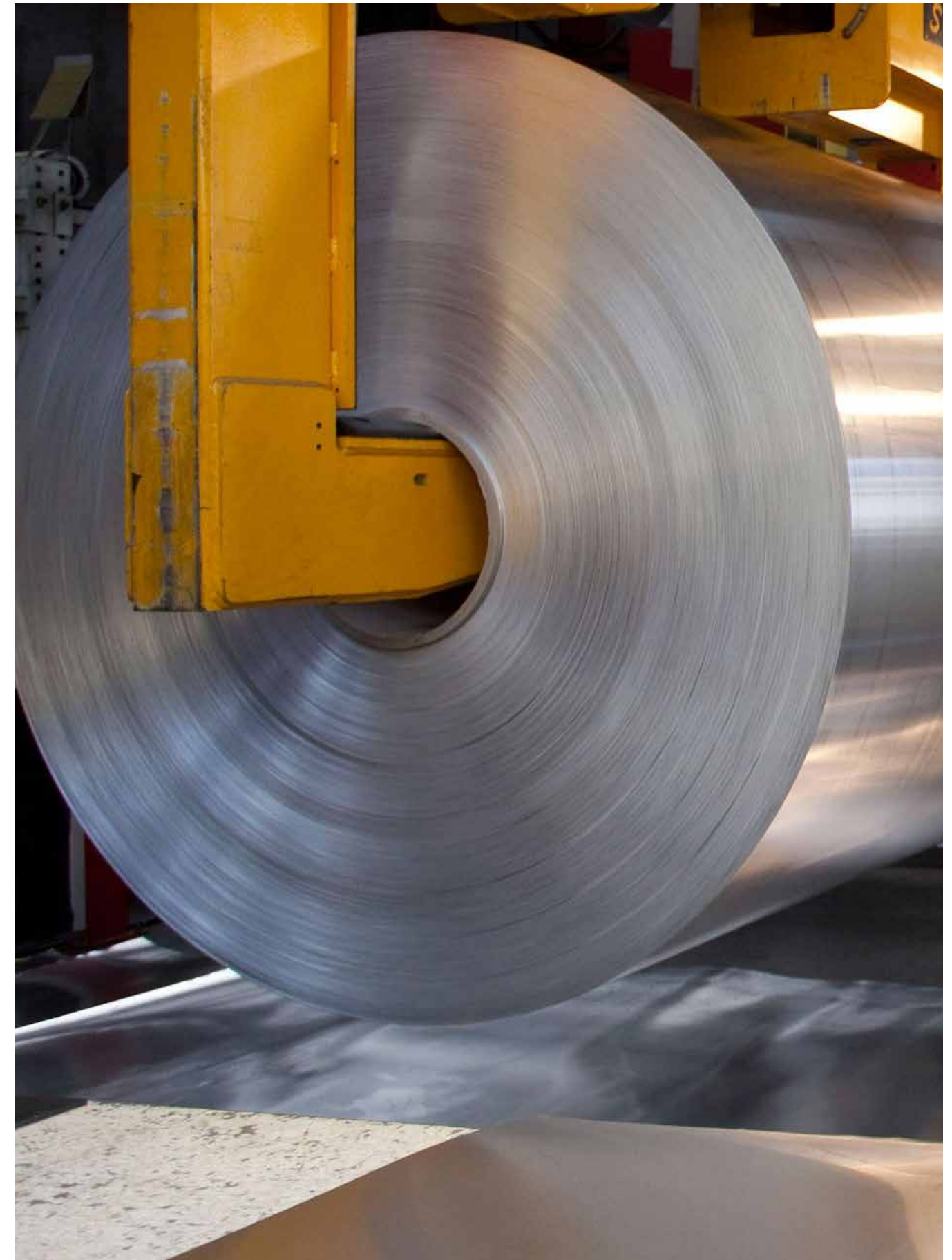
Using electrochemistry, an anodic film layer is grown onto the aluminum surface. The new layer is hard and porous—perfect for coloring. If the natural look of aluminum is desired, then skip coloring and start sealing.

### Step 4: Coloring

For vibrant colors, but not necessarily UV stable colors, dyes of any hue are absorbed directly into the anodic layer. For a UV stable metallic look, metal salts are electrolytically deposited. Both leave unmatched color intensities you never thought possible.

### Step 5: Sealing

Here we close the pores, lock in the colors, and create a tough, resilient, finished surface.



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**lorin.com** | North America: 800.654.1159 | International: +1 231.722.1631