

CORPORATE CAPABILITIES

REFLECT YOUR VISION

LORIN

CREATION WITHOUT LIMITATION

For decades, we've worked to make anodized aluminum the best option for products, projects, and the visionaries behind them. Beautiful designs shouldn't be held hostage to restrictions and costly build challenges—a material should reflect the brilliance of innovation without limiting it. For any signature look you desire, anodized aluminum is reflective, customizable, consistent, and 100% recyclable—perfect for making a statement in every way.





BEAUTIFUL FROM BEGINNING TO END

Family-owned for over 75 years, Lorin anodized aluminum can be seen shining brilliantly on some of the world's most iconic structures and product designs, and, no matter the age, they are always radiant. Three times tougher than the raw material, anodized aluminum won't chip, flake, peel, patina, rust, or weather. And to make things easy, we clean, anodize, color, seal, cut, and deliver ready-to-fabricate coils all in one stop. To put it simply, no matter how grand the creative vision, we'll make the process easy and provide a product that lasts and lasts and lasts.

GLOBALLY POSITIONED

Lorin is accessible for projects of any scale anywhere in the world. Our culture is one of creative problem-solving and collaboration, aiming to see your vision through—and the standards required by everyone involved—long after the life of the project. On a team, people make all the difference. Let's work together and create something beautiful to help you reflect your vision.





AnoZinc® I with Arconic Tectur-Al™



CopperBrite®



GoldMatt®



ClearBrite®

LIMITLESS APPLICATIONS

From fine detailing to stories-high installations, Lorin anodized aluminum is formable, durable, customizable, and surprisingly affordable.

- INTERIORS & EXTERIORS
- ARCHITECTURE
- TRANSPORTATION
- CONSUMER GOODS

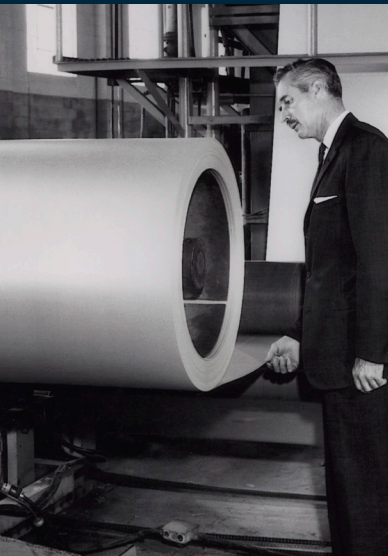
LORIN: A SHORT STORY

It's 1943 in Muskegon, Michigan. Our founder, Herb Kersman, opens a small electroplating firm to support the war effort by producing cadmium- and zinc-plated materials. The demand for anodized aluminum eventually prompted Herb to pivot business strategies, and the rest, they say, is history.



40s

1943: Herb Kersman opens electroplating company called Muskegon Plating



50s

1953: First-ever coil anodizing line designed and built

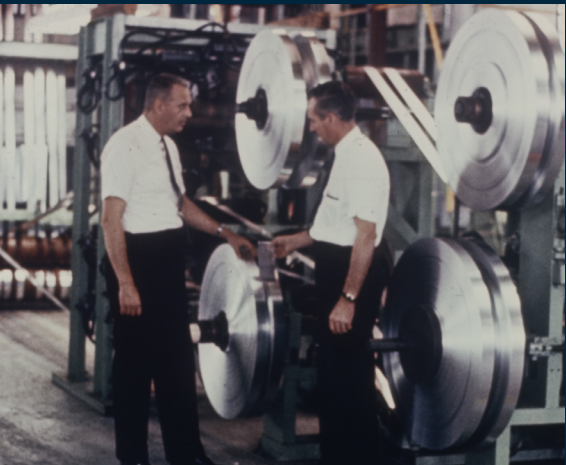
1957: Fire causes severe building and line damage



60s

Early 1960s: Two more coil anodizing lines built

1962: Coil slitting and shearing services added



70s

1976: State-of-the-art wastewater treatment facility built

80s

1983: Robert "Buzz" Kersman purchases Lorin Industries

1988: UV-resistant ColorIn® colors introduced



90s

1991: Innovative lighting sheets developed: PreMirror® and DuraMatt®

1991: Cogeneration facility built for sustainable future

1992: Established as global leading supplier of 3.5" diskette for personal computers

1996: Eighth coil anodizing line built

00s

Early 2000s: Business expands internationally in Asia, Europe and Latin America

2006: Park Kersman becomes third-generation owner

2006: Lorin launches Adhere®, patented in 2009

10s

2010: Mercedes-Benz Superdome refinished with Lorin anodized aluminum

2012: Lorin Industries named one of "Michigan's Top 50 Companies to Watch"

2013: Expands architectural business in China with Zaha Hadid's Nanjing Youth Olympic Towers

2013: Lorin becomes official anodized aluminum supplier for Rimowa luggage

2013: Lorin creates world's only UV stable anodized aluminum zinc colors (AnoZinc I®, AnoZinc II®, Pewter® made with Arconic Tectur-Al™)

2016: Awarded "Project of the Year" by Metal Architecture magazine for the Owensboro Convention Center



ALUMINUM 101

Lightweight

Sixty percent lighter than copper, brass, and stainless steel

Strong

Three times tougher than raw aluminum with natural abrasion resistance

Corrosion Resistant and UV Stable

Won't chip, flake, rust, peel or patina despite the elements

Resilient

Flexes under impact loads and springs back flawlessly

Reflective

Optical properties are second to silver for bright aesthetics or reflective cool roofs

Non-combustible

Doesn't flame, smoke, contain volatile organic compounds or emit toxic fumes

Sustainable

Made from Earth's most abundant element, 100% indefinitely recyclable, and an environmentally responsible process

HOW WE DO IT

Coil anodizing is an electrochemical process, not an applied coating. And because anodizing is as much about art as science, the end result with Lorin is nothing short of magic—nearly limitless design possibilities and coil-loads of efficiencies.

From the Mill

It all begins with finding the perfect aluminum alloy for the application. And, in the event the project requires a high visual surface quality, we start with a high visual anodized quality (AQ) alloy, especially since anodizing will enhance, not hide, the surface characteristics of the raw material. Lorin works continuously with its qualified mills to assure they provide the highest quality raw aluminum available.

The Coil Anodizing Process

At Lorin, the anodized quality (AQ) aluminum arrives in coil form, 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. Afterward we cut the material and deliver ready-to-fabricate all in one stop.





THE ANODIZING PROCESS STEPS

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.

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 fines 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.

Additional Services - Lorin offers an extensive Coil Service Center for your Slitting, Cut-to-Length and Packaging needs.

LORIN

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