



Benefits & Care of Anodized Aluminum

Anodizing successfully combines science with nature to create one of the world's best metal finishes. Anodize is an electrochemical process that thickens and toughens the naturally occurring protective oxide. The resulting finish is the second hardest substance known to man, second only to the diamond. This characteristic makes anodize an excellent choice for use in high-traffic areas, such as doors and railings, where hardness and abrasion resistance properties are vital.

The purpose of anodizing is to form a layer of aluminum oxide that will protect the aluminum beneath it. The aluminum oxide layer has a much higher corrosion and abrasion resistance than aluminum. A typical anodize finish used in the architectural industry is called "two-step electrolytic." [read more...](#)

Linetec recently introduced a propriety system for creating copper-colored anodize that gives the look of rich, real copper, and resists stains from salt runoff, galvanic corrosion, and the formation of patina. [read more...](#)

Specifying Anodized Aluminum

In order to ensure a long-lasting anodize finish on building products, the American Architectural Manufacturers Association's AAMA 611-98 specification should be referenced at the time of the order. This specification addresses finish mil thickness, color ranges, and performance of architectural anodize. Linetec offers an [on-line spec-writer](#) on their website.

AAMA Anodizing Specification 611-98

	Class I	Class II
End use	Exterior	Interior or exterior with regular maintenance
Film Thickness min.	0.7 mils	0.4 mils
Abrasion Resistance	Best	Good
Salt-Spray Resistance	3,000 hours	1,000 hours
Color Retention	5 years: Fade + 5 Delta E	5 years: Fade + 5 Delta E

If requested, the finisher should submit, for approval, representative samples of the allowable color range. A set of color range samples consists of two samples which represent the extreme of appearance to be expected on the finished parts. The range samples should not differ by more than 5 Delta E.

Warranty

Linetec's documented testing allow us to offer warranties of 5 years, on Class I Anodize finishing, with confidence that your product will perform as intended. In some cases, with prior approval and a minimal up-charge, Linetec can offer an extended warranty up to 10 years.

The anodizing warranty for Class I, (0.7 mil) clear, bronze and black finishes is backed by the strength of Linetec. We warrant that the finish will not chip, crack, or peel (adhesion), chalk, or color change / fade. [View sample warranty.](#)

Benefits of Anodizing

Value - Anodizing is available at a lower initial cost than competing finishes, plus has low maintenance cost, offering superb life-cycle value.

Durability - Anodizing offers exceptional resistance to abrasion, far superior to that of paint. because the anodic oxide is integral to the aluminum substrate, it simply cannot chip or peel.

Color Stability - Anodic oxide is unaffected by ultraviolet light rays and is resistant to slats, making anodizing a colorfast finish that is repeatable and reliable.

Maintenance - Anodized surfaces, unlike stainless steel, will not show fingerprints. It resists scratching during value-added processing such as fabrication, installation, cleaning, or other handling. Soiled anodized aluminum may be cleaned with simple soap and water.

Aesthetics - Anodizing yields a deep, rich metallic luster and is available in a wide range of gloss and color alternatives.

Environmental Safety - Anodizing is a safe process that is not harmful to human health; it has little environmental impact and anodized aluminum is fully recyclable without the environmental risks associated with organic coatings.

Cleaning Anodized Aluminum

Cleaning anodized aluminum is easy with the right technique. Because anodizing is so hard, you want to use an abrasive cleaning technique with a gentle soap. Do not use harsh acidic or alkaline cleaners because they may destroy the finish. Use solvents with care as they may stain the finish. Regardless of the technique, be sure to try a test area first. One recommended technique is to use an abrasive cleaning sponge with mild dish washing liquid. Always try a test small area first to prevent a widespread problem. For more detailed (printable) instructions see Linetec's [Care After Installation of Anodized Aluminum.](#)

For more information on anodizing visit the [anodizing section](#) of Linetec's website, Linetec's on-line [AIA presentation](#), or the Alumium Anodizing Council [website](#).