

## What is Anodizing

Anodizing is an electrochemical process that converts the metal surface, specifically on aluminum into decorative, tough, wear resistant, corrosion-resistant, anodic oxide finish. This oxide coating originates from the aluminum substrate and is composed entirely of aluminum oxide and is fully integrated with the underlying aluminum substrate, so it cannot chip or peel. This oxide coating is a porous structure in nature which allows for additional processes such as coloring and sealing. Stylmark is a Type II anodizing facility, which is defined by creating the oxide coating utilizing sulfuric acid baths.

Anodized finishes uniquely satisfy each of the factors that must be considered when selecting a high-performance aluminum finish:

- Durability
- Indoor Color Stability
- Ease of Maintenance
- Cost
- Aesthetics



# METAL, LIGHT & COLOR

## ANODIZING ALUMINUM & ENVIRONMENTAL IMPACT

Stylmark primarily uses aluminum alloy 6463 as it is the preferred choice for interior anodizing as this alloy is designed to achieve bright finishes and colors as seen in decorative trims and interior architecture applications.

Anodized finishes have made aluminum one of the most respected and widely used materials today in the production of thousands of consumer and commercial products.

Aluminum is a sustainable material that can contribute to LEED credits for its “Cradle to Cradle” lifecycle and the absence of air polluting VOC’s. For aluminum there is no “end of life”, it can be recycled repeatedly again without compromise.

## FINISHING

### CHEMICAL FINISHING

#### **Brightening:**

This process uses a solution of phosphoric and nitric acid to simultaneously form and dissolve an oxide coating on the aluminum surface.

#### **Etching:**

The controlled removal of metal with a caustic solution to develop a uniformly matte surface.

### MECHANICAL FINISHING

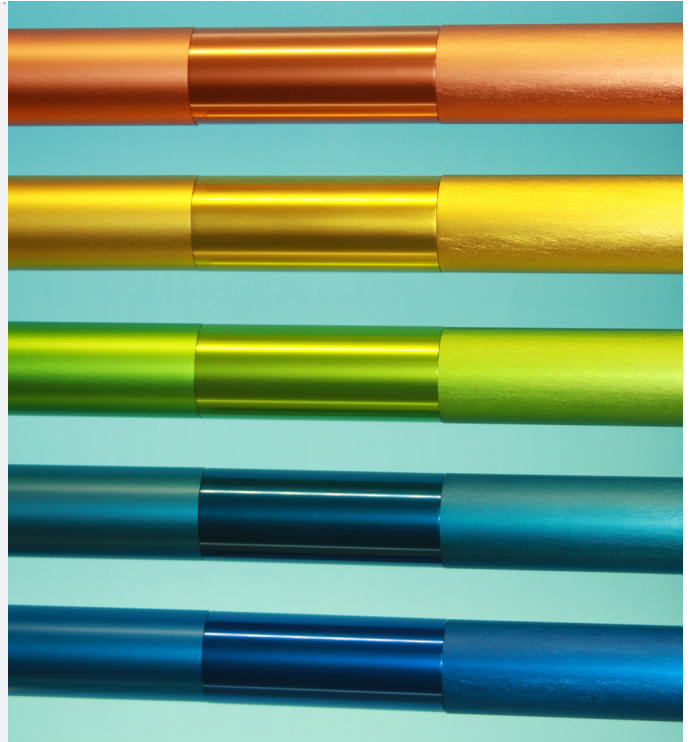
#### **Buffing:**

All aluminum parts are polished with a ventilated muslin buffing wheel and Tripoli buffing compounds.

#### **Brushing:**

Anodized parts are scratched brushed with a Vonnegut wheel using 180 grit aluminum oxide coated abrasive cloth.

Similar to the #4 finish on stainless steel.



## COLOR, TANKS & EXTRUSION SIZE

- Stylmark offers over 1000 color and finish combinations
- Custom color matching
- Stylmark has ten anodizing tanks
- Stylmark has three holding tanks to keep your custom colors available up to five additional days
- Stylmark can accommodate materials up to: 144" x 32" x 18"

## ABOUT STYLMARK

Founded in 1954, Stylmark is a leading designer and manufacturer of finished fixtures and full solutions – from aluminum and steel products, to LED lighting, showcases, fitting rooms, shelving, kiosks, architectural moldings and more. Stylmark's extensive inventory of stock and custom products and solutions are designed to work together, creating comprehensive and distinctive lifestyle environments.