

# ANODIZED PLUS®

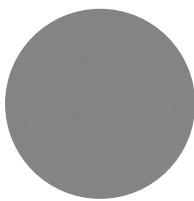
YKK AP Anodized Finishes with Proven Advantages



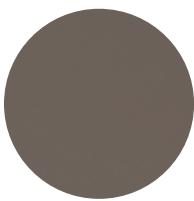
**YKK**  
**ap**<sup>®</sup>

Entrances | Storefront | Curtain Wall | Window Wall | Balcony Doors | Windows | Sun Control

# An Introduction to Anodized Plus®



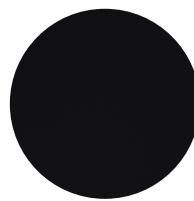
YS1N  
Clear



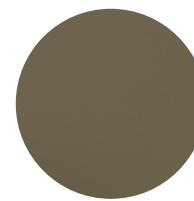
YB1N  
Med Bronze



YB5N  
Drk Bronze



YK1N  
Black



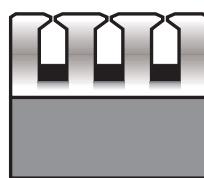
YH3N  
Champagne



YW3N  
White

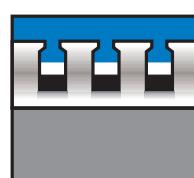
## Conventional Anodized vs. YKK AP Anodized Plus®

### AAMA 611 – Conventional Anodized Finish



Porous Aqueous Seal  
Anodic Oxide  
Plus Electrolytic  
Pigmentation Coating

### AAMA 612 – YKK AP Anodized Plus® Finish



Electro-Deposition  
Organic Seal  
Anodic Oxide  
Plus Electrolytic  
Pigmentation Coating

The synergistic effects of this new aluminum finish result in important advantages:

- Increased resistance to chemical corrosion.
- Superior color and gloss retention.
- Enhanced protection of aluminum substrate.

**What is Anodized Plus?** It is another innovation from YKK AP. Anodized Plus provides a unique protective seal on anodic finishes. Its anodic coating combined with an organic seal offers the dual benefits of enhanced durability and resistance to staining and degradation.

Conventional anodic coatings rely on hot water or steam sealing to close the porous anodic layer; however, it is not possible to close every pore using this process. YKK AP Anodized Plus replaces the conventional sealing process with a unique non-aqueous, electrodeposited organic seal that provides complete protection for the anodic oxide and the pigmentation coating.

YKK AP controls every step in the manufacturing process under one roof. To ensure the quality and the integrity of the aluminum alloy we cast our own aluminum logs for extrusion. Our method of electrolytic coloring by vertical immersion provides unmatched color consistency and eliminates the need for color range samples. The colors available are white, black, clear, champagne, medium and dark bronze.

YKK AP Anodized Plus meets all of the requirements for the newest standard for anodized finishes, AAMA 612. To ensure that the anodized finish on your next project meets your aesthetic requirements and stands up to chemicals commonly found on construction sites and harsh environments specify AAMA 612 — specify YKK AP Anodized Plus.

All YKK AP products are created in facilities that are models of energy efficiency and environmental responsibility. YKK AP's U.S. manufacturing plant in Dublin, Georgia, is ISO 14001 certified and has a 73% recycling rate. The plant:



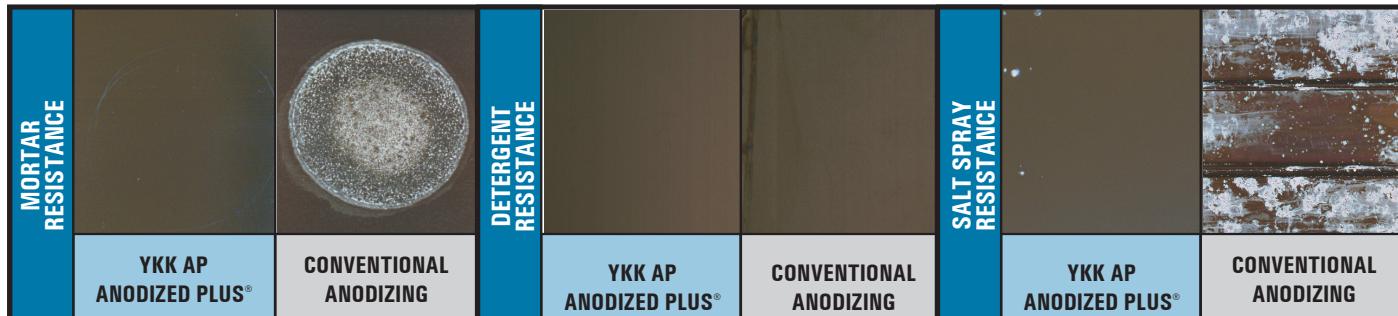
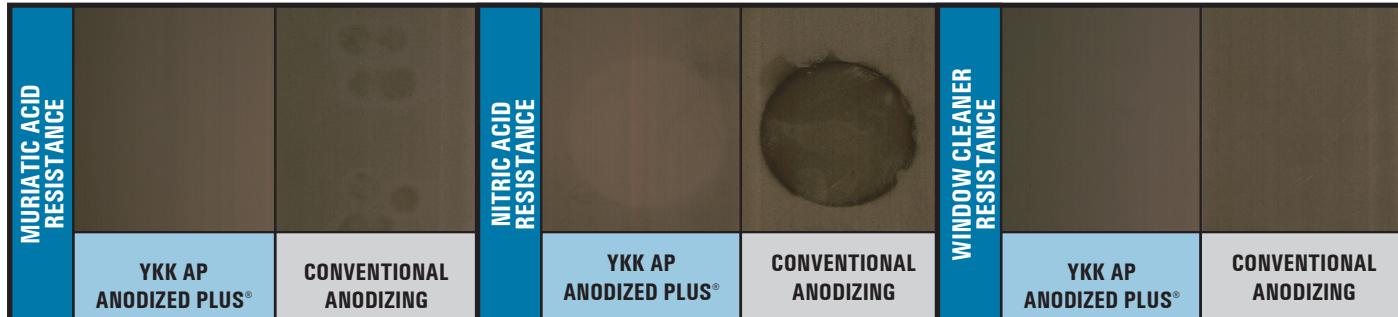
- Recycles 100% of aluminum waste on-site
- Has reduced the amount of other waste materials sent to the landfill by 40%
- Uses regenerative burners to save 50% on the melting/casting operation's fuel consumption
- Captures and burns 93% of all solvent emissions from the paint line
- Uses state-of-the-art techniques for waste water treatment

## COMPARISON OF ANODIZED FINISH STANDARDS

TEST	PERFORMANCE		
	AAMA 612	AAMA 611	
		CLASS I	CLASS II
<b>HSINH</b>	<b>Coating Thickness</b>	0.7 mils (18 microns)	0.7 mils (18 microns)      0.4 mils (10 microns)
	<b>Color Uniformity</b>	Samples Shall Not Differ More Than 5 Delta E	Within Established Color Range
<b>HSINH</b>	<b>Hardness</b>	Minimum 3H Hardness	Michael Clark Abrasion Test
	<b>Muriatic Acid Resistance</b>	No Blistering & No Visual Change in Appearance	No Test Specified
	<b>Mortar Resistance</b>	No Loss of Film Adhesion & No Visual Change in Appearance	No Test Specified
	<b>Nitric Acid Resistance</b>	Maximum Change in Color of 5 Delta E	No Test Specified
	<b>Detergent Resistance</b>	No Loss of Adhesion, No Blistering & No Visual Change in Appearance	No Test Specified
	<b>Window Cleaner Resistance</b>	No Blistering & No Visual Change in Appearance	No Test Specified
	<b>Craze Resistance</b>	No Crazing Below a Metal Temperature of 82° C (180° F)	No Crazing Below a Metal Temperature of 82° C (180° F)
<b>ALUMINUM</b>	<b>Humidity Resistance</b>	Only a Few Small Blisters As Defined by ASTM D 714	No Test Specified
	<b>Salt Spray Resistance</b>	Samples Exposed for 4,000 hrs ASTM D 1564	3,000 hrs ASTM B 117      1,000 hrs ASTM B 117
	<b>Weathering</b>	5-Year South Florida Exposure	10-Year South Florida Exposure
	<b>Gloss Retention</b>	Shall Be a Minimum of 50% After 5 Years South Florida	No Test Specified
	<b>Erosion</b>	Less Than 10% Film Thickness Lost After 5 Years South Florida	No Test Specified
	<b>Seal Test</b>	Quality of Seal Determined Through Performance Tests Shown Above	Maximum Weight Loss of 40mg/cm <sup>2</sup>

An anodized finish that is tough enough to resist damage from construction site chemicals, harsh environments and now Father Time. YKK AP's **Anodized Plus®** material shipped from the Dublin Manufacturing Facility, will meet or exceed all of the requirements for AAMA 612—the latest standard for anodized finishes.

### Specify AAMA 612 — Specify YKK AP Anodized Plus®, Now With 10 Year Finish Warranty\*



Anodizing is one of the most beautiful, unique and economical ways to finish architectural aluminum. The anodizing process enhances the intrinsic luster of aluminum and simply can not be duplicated with paint. Architects and designers desire the appearance of anodized finishes, but are concerned with the vulnerability of the finish to staining and degradation. In an attempt to improve the durability of anodized finishes manufacturers have increased the thickness of the oxide coating. But, this simply masks the problem and does not address the real issue. The inherent weakness of the conventional anodizing process is the inadequate seal of the anodic pores not the thickness of the oxide coating. Even the smallest openings in the seal leaves the anodized finish vulnerable to attack. In 1965 Honny Chemical developed a new sealing process that seals 100% of the pores 100% of the time; this is the sealing process used for **YKK AP Anodized Plus®**.

\*YW3N Anodized White finish is warranted for 5 years.

# YKK AP Locations

## Headquarters

**Offices** 101 Marietta St NW, Suite 2100, Atlanta, GA 30303 **Tel:** (678) 838-6000 **Fax:** (678) 838-6001

## Sales & Manufacturing Centers

<b>Cincinnati</b>	8748 Jacquemin Dr, Suite 400, West Chester, OH 45069	<b>Tel:</b> (513) 942-7200	<b>Fax:</b> (513) 682-2123	<a href="mailto:cincinnatiservice@ykkap.com">cincinnatiservice@ykkap.com</a>
<b>Dallas</b>	346 E. Belt Line Rd, Suite 600, Coppell, TX 75019	<b>Tel:</b> (469) 528-6900	<b>Fax:</b> (469) 528-6907	<a href="mailto:dallasservice@ykkap.com">dallasservice@ykkap.com</a>
<b>Los Angeles</b>	10750 7th St, Suite 102, Rancho Cucamonga, CA 91730	<b>Tel:</b> (909) 219-6597	<b>Fax:</b> (909) 354-3170	<a href="mailto:laservice@ykkap.com">laservice@ykkap.com</a>

## Branches

<b>Atlanta</b>	8140 Troon Cir, Suite 110, Austell, GA 30168	<b>Tel:</b> (678) 945-6190	<b>Fax:</b> (678) 945-6328	<a href="mailto:atlantaservice@ykkap.com">atlantaservice@ykkap.com</a>
<b>Baltimore</b>	6670 Business Pkwy, Suite 104, Elkrige, MD 21075	<b>Tel:</b> (410) 796-1001	<b>Fax:</b> (410) 796-2031	<a href="mailto:baltimoreservice@ykkap.com">baltimoreservice@ykkap.com</a>
<b>Greensboro</b>	4524 Green Point Dr, Suite 106, Greensboro, NC 27410	<b>Tel:</b> (336) 665-1963	<b>Fax:</b> (336) 665-1965	<a href="mailto:greensboroservice@ykkap.com">greensboroservice@ykkap.com</a>
<b>Houston</b>	5300 Hollister Rd, Suite 320, Houston, TX 77040	<b>Tel:</b> (713) 329-9551	<b>Fax:</b> (713) 939-0811	<a href="mailto:houstonservice@ykkap.com">houstonservice@ykkap.com</a>
<b>Orlando</b>	7608 Currency Dr, Orlando, FL 32809	<b>Tel:</b> (407) 856-0660	<b>Fax:</b> (407) 856-0090	<a href="mailto:orlandoservice@ykkap.com">orlandoservice@ykkap.com</a>

## About YKK AP America Inc.

YKK AP America is a technology-oriented manufacturer of commercial facade systems and residential doors and windows. With every finished good, we push the boundaries in next generation manufacturing and create value for architectural applications. Driven by a desire to provide exceptional service in our markets, YKK AP America builds upon our foundation of advanced engineering, vertically integrated manufacturing, and customer focus to deliver the highest level of quality at a competitive price.



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



YKK AP maintains a state of the art ISO 14001 certified manufacturing facility in Dublin, GA.



Entrances | Storefront | Curtain Wall | Window Wall | Balcony Doors | Windows | Sun Control