

Let's
**Talk
Tech**

Anodized Finishes

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Anodized Finishes

What is Anodized?

Anodizing is an electrochemical process that converts the metal surface into a decorative, durable, corrosion-resistant, anodic oxide finish.

The anodic oxide structure originates from the aluminum substrate and is composed entirely of aluminum oxide. This aluminum oxide is not applied to the surface like paint or plating, but is fully integrated with the underlying aluminum substrate, so it cannot chip or peel. It has a highly ordered, porous structure that allows for secondary processes such as coloring and sealing.

Order Considerations

As with any anodized finish, color variations between panels will occur on anodized ALUCOBOND® material. Steps to be taken to maximize color uniformity on anodized ALUCOBOND material include:

1. It is important to order enough panels to complete the project on the initial order. Any additional orders would be produced using different aluminum coils and would have a difference in color to the original order.
2. Panel direction should either be all horizontal or vertical. This allows the grain direction to remain constant. Panels erected perpendicular to each other will exhibit color variation.
3. **On the non-anodized (backside) of the panel, there will be an identification number and directional arrows. Fabrication and installation of the panels should be arranged to keep directionality of the panels consistent for best possible color consistency.**
4. Larger projects requiring more than one coil will be produced from coils that are as similar to each other in color as possible. However, there will be color variation whenever multiple coils have to be used.
5. For larger projects, consider installing panels by elevation and avoiding the use of multiple aluminum coils on the same elevation to minimize color variations between coils.
6. During masking and fabrication, typical full sized panels should be used to check color uniformity against all other panels.
7. We recommend ordering extra panels in the longest length and for each width in case of damage during fabrication or at the project site. Color variation is likely to occur on replacement or additional panels.
8. All material needed for a project should be ordered at one time to minimize color variation.
9. Please be aware that all architectural Class I anodized finishes will craze when the material is rolled or formed. Cracking is very thin, hair-like lines that appear in the surface of the anodic coating during any mechanical forming or bending. Performance of the finish is not affected by crazing.

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Stabilizer Marks

Panels 13 feet or longer may have a slight indentation on the edge of the long dimension. This indentation is caused by a stabilizer used to prevent the panel from bowing during anodizing.

Cleaning

A mild abrasive cleaning technique can be used. Solvents should be used with care since they may affect gaskets or sealers within the wall system. Acidic or alkaline cleaners should not be used because they may destroy the finish. It is recommended to use an abrasive cleaning sponge with mild dish washing liquid. It is best to try a test area first.

Racking or Tong Marks

In order to obtain an anodized finish, it is necessary to clamp the panel during the anodizing process. The marks left when the clamps are removed make that portion of the panel unsuitable as a finish surface. When ordering anodized material, refer to the following guidelines to allow for rack marks.

Bronze and Black Finishes

- Add 2" for panels up to 8' long
- Add 4" for panels 8' to 16' long
- Consult your [Sales Manager](#) for panels over 16' long
- For attachment methods other than routing and folding, add an additional 2" to the above guidelines

Clear Anodized

- Add 2" for panels up to 12' long
- Add 4" for panels 12' to 18' long
- Consult your [Sales Manager](#) for panels over 18' long
- For attachment methods other than routing and folding, add an additional 2" to the above guidelines

Aluminum Association Designation Systems for Anodized Material

ALUCOBOND PLUS panels are anodized to the following Aluminum Association Designations for Anodized material.

AAC22A41 - Clear Anodized, Class 1 finish (0.7 mil or greater coating thickness)

AAC22A44 - Impregnated Bronze to Black Anodized, Class 1 finish (0.7 mil or greater coating thickness)

Designations

AA = The Aluminum Association

C22 = Medium Matte Etch

A41 = Clear Class I finish

A44 = Two Step Colors with Class I finish