



Aluminum Coil Anodizing Corporation  
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## Quality Assurance and Testing

Through various process controls coil anodizers are able to monitor and control the correct anodized coating for your application.

### Quality Criteria

- Anodize film thickness
- Anodize film uniformity
- Anodize film density
- Abrasion resistance
- Corrosion resistance
- Fade resistance
- Reflectivity
- Image clarity
- Insulative properties
- Adhesion
- Sealing

### Applicable Tests

- G.M.C. Cass Test
- Ford fact test
- Salt spray
- Weatherometer
- Fadometer
- U.V. Con
- Acid dissolution (ASTM B136-63T)
- Weight test
- Microscopic test
- Dielectric test
- Light section microscope
- Colorimeter
- Dorigon

## Fabrication Guidelines and Techniques

Pre-anodized aluminum coil can be used in nearly all fabricating operations with exceptions of deep drawing and extruding.

### Stamping and Blanking

- No major modifications in tool design are necessary.
- Reduce male-female die clearance to 2%-8%
- Keep dies sharp
- A looping pit ahead of the press allows for smooth coil feeding
- Synthetic grippers on feed work best.
- Lubricants may be eliminated, depending on the process.
- Use lintless gloves when handling pre-anodized stock.
- Anodized blanks are protected and stackable.

### Rollforming

- Often, no change in tooling is necessary when converting from another metal.
- Pre-anodized aluminum will take all minimum bend radii as specified by the Aluminum Association.
- Just as with stainless steel, keep tooling polished
- Chrome-plated rolls often perform best.
- Using polyfilm will sometimes eliminate the need for lubricants.

### Laminating

- Polyfilm protection is helpful. Leave it on through the process.
- Clean the substrate with a clean brush.
- Cut the sheet to size with shears or saw. Be sure they are sharp.
- Experiment with saw and feed speed on scrap.
- Cut into the sheet so that rough edges are on the back of the sheet.
- Spray-grade contact adhesives work best. Apply them on the aluminum first, then on the substrate

### Bending (Break Press)

- Handle pre-anodized stock similar to other metals
- Various dies can be used.
- Half hard tempers are most often used because of their formability and structural integrity
- Where possible, use a scrap of anodized sheet to adjust the depth of stroke required to accomplish the desired bend.
- Gradual bending will help to minimize crazing.
- Strippable polyvinyl films will help protect the surface during the bending process.