

How to Dye Anodized Aluminum using OrcoAluminum™ Dyes

OrcoAluminum™ dyes provide a wide range of colors for type I, II, and III anodized aluminum. **OrcoAluminum™** dyes are suited for many different applications such as jewelry, architectural, military, automotive parts, office accessories, transportation, sporting equipment, electronics and medical equipment. Organic Dyes and Pigments offers technical support including custom shade-matching and troubleshooting.

Application Procedure for **OrcoAluminum™** Dyes

1. Basic equipment necessary includes rinse tanks, dye tank, and a sealing tank. All tanks must be of an inert material such as stainless steel or plastic.
2. Oil traps should be used to prevent contamination of dye solution.
3. It is important to dye immediately after rinsing of freshly anodized aluminum. It is best practice to use three separate rinse tanks.
4. Add aluminum into dyebath set at 140°F and proper pH. pH can be adjusted using Acetic Acid to lower pH and Sodium Acetate or Sodium Hydroxide to raise pH.
5. Run aluminum in dyebath for desired amount of time, typically ~10 minutes with good dyebath agitation to promote levelness.
6. Move the aluminum to the hot sealing tank bath set at 200°F and containing 0.5% Nickel Acetate for 10-25 minutes.
7. If necessary, use 0.5% Boric Acid to minimize smutty deposits.
8. During sealing, pH should not go below 5.3 as the dye will leach from the microscopic pores of the oxidized layer.