



CHEM PROCESSING, INC.

Platings & Coatings for Industry

Hard Coat Anodizing: Type III

Hard Coat Anodizing, Type III, is an electrochemical process that creates an aluminum oxide film by rapidly controlling the oxidation of an aluminum surface. Hard Coat Anodizing utilizes sulfuric acid, low bath temperatures, and constant current pulsating rectification to achieve a very hard coating, 60-70 Rc. Hard Coat Anodizing is generally used for applications that need a corrosive, abrasive, and wear resistant coating. Other advantages of Hard Coat Anodizing include: improved paint adhesion; improved adhesive durability; excellent lubricity; resistance to atmospheric and marine attacks. Hard Coat Anodizing is also available with PTFE (Teflon™), and if required, the hard coat can be dyed black.

Chem Processing Inc. Type III Anodizing Plating Capabilities:

- Typical Formed Thickness is 0.0010 to 0.0040 in.
- Available with PTFE (Teflon™)
- Rack Anodizing
- Available Masking for Selective Surface Anodizing
- Salt Spray Corrosion Test (minimum 336 hours of salt spray resistance)
- Thickness Analysis, Coating Weight
- Taber Abrasion Test
- Dielectric Testing

Applicable Specifications:

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|-----------------------------|------------------------------|-------------|
| MIL-A-8625F Type III | MIL-STD-171D (7.5.1 & 7.5.2) | |
| MIL-STD-186 D (207) | MIL-F-14072C (E514) | |
| ASTM B5580 (Type B,C,D,E,F) | AMS 2468 & 2469 | |
| MIL-STD-193K | AMS B117 | MIL-C-60536 |

Typical Type III Applications:

- **Machinery:** excellent abrasion resistance for high-speed machine parts
- **Electronics:** provides uniform emissivity and a high dielectric
- **Marine:** long-lasting corrosion resistance in salt-water
- **Oil and Petrochemical:** excellent corrosion and wear resistance
- **Aviation and Space:** durability and longevity
- **Ordnance:** corrosion protection, and abrasion and wear resistance
- **Cookware:** corrosion protection and non-stick properties.

Chem Processing Inc. is committed to excellence in metal finishing. Chem Processing Inc. uses their engineering expertise and computerized process controls to **exceed their customer's expectations** when adherence to strict thickness specifications is essential.