

# Metal Finishing

Our premiere anodizing team is able to offer the following metal finishing operations.



## Type 2 Anodize, Class 1 (Non-Dyed)

Type II standard anodized aluminum has a coating up to 1 millimeter thick and is sealed to lock in the dye and close the pores after the anodizing process for improved corrosion resistance. It is the most common type of aluminum anodizing.

## Type 2 Anodize, Class 2 (Dyed)

Type II anodic coatings are used to protect and color aluminum parts for decorative purposes only, where there are minimal requirements for durability. Typically, these are thin, highly porous, clear coatings that will easily receive dyes. These coatings can be dyed in a wide spectrum of colors.

## Type 3 Anodize, Class 1 (Non-Dyed)

Type III Hard Coat anodized aluminum is a thicker, more durable coating up to 2 millimeters thick. It is also available in non-dyed and dyed options. For the best wear resistance, and when adhesion is required on a non-dyed component, it is typically not sealed.

## Type 3 Anodize, Class 2 (Dyed)

Type III (Hardcoat Anodized) requires more exacting process conditions, which result in a harder, denser, thicker, and more abrasion-resistant coating. Hardcoat thicknesses can vary from 0.0005 to 0.0030: and beyond, but it is dependent on the specific alloy being anodized.

## Chemical Conversion Chem-Film

Chemical Conversion coating is often referred to as Chem Film, chromate coating, or yellow chromate coating. This coating process applies chromate to the metal substrate, creating a surface that is corrosion-resistant, durable, and exhibits stable electrical conductivity.

## Passivation of Stainless Steel

Passivation is a chemical treatment with a specific acid formula that removes free-iron or other surface contamination from the stainless steel while simultaneously promoting the formation of a passive chromium/nickel oxide layer to act as a barrier to further corrosion.