

# OUR PLATING SPECIFICATIONS

## CHEMICAL CONVERSION COATINGS ON ALUMINUM AND ALUMINUM ALLOYS [MIL-C-5541E]

### Description:

Covers the requirements for two classes of chemical conversion materials and the surfaces of aluminum and aluminum alloys. This specification is intended specifically to provide military weapons systems applications with maximum corrosion resistance and is not intended as a general purpose coating for commercial and decorative applications.

**Class 1A.** Class 1A chemical conversion coatings are intended to provide corrosion prevention when left unpainted as well as to improve adhesion of paint finish systems to aluminum and aluminum alloys. Coatings of this type may be used, for example, for all surface treatments of tanks tubings, and component structures where paint finishes are not required for the interior surfaces but required for the exterior surfaces. Repair of mechanically damaged areas of anodic coatings conforming to MIL-A-8625F by the use of class 1A coating (see 3.5) will provide an effective means of reestablishing corrosion resistance but will not restore the abrasion resistance of the anodic coating.

**Class 3.** Class 3 chemical coatings are intended as a corrosion preventive film for electrical and electronic applications where low resistance contacts are required.

Unpainted chromate conversion coatings will commence losing corrosion resistance properties if exposed to temperatures of 60° C (140°F) or above, during drying or subsequent fabrication or service.

### Applicable Documents:

| SPECIFICATIONS | THICKNESS             | REMARKS                                                                                | MIL-C-5541E |
|----------------|-----------------------|----------------------------------------------------------------------------------------|-------------|
| Class 1A       |                       | For maximum protection against corrosion, for surfaces to be painted or left unpainted |             |
| Class 3        | No dimensional change | For protection against corrosion where low electrical resistance is required           |             |

We are happy to answer any questions you may have about our process. Please feel free to contact us anytime.

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