



Industry Uses:

- Aerospace
- Aircraft
- Automotive
- Medical
- Defense

Coating Specifications:

- MIL-A-8625 (Types II & III)
- AMS-2469
- AMS-2471
- AMS-2472
- ASTM-B-580
- Medical Validated Lines / Processes

Typical Thickness:

- MIL-A-8625
 - Type II – .0001-.001
 - Type III – .0016-.0024
- Can apply from .0001 - .004 total thickness

Corrosion Resistance:

- >336 hours per ASTM B-117

Dielectric Resistance:

- 1000V per .001" coating thickness

Colors:

On-line dyes consist of black, red, blue, olive drab, tan, blue grey and others; specific dye needs can be satisfied upon request

Seals:

Hot Water Seal, Nickel Acetate, Sodium Dichromate

Aluminum Anodize

Aluminum anodizing is an electrochemical process that converts aluminum into a durable, corrosion resistant, anodic oxide finish. The metal substrate is considered the “anode” in this electrolytic process, which is why we use the term anodizing. An electrical current is passed between the metal and a cathode – usually flat, aluminum bars in a sulfuric acid bath – producing an anodic oxide.

This aluminum oxide is not applied to the surface like paint or plating, but is fully integrated with the underlying aluminum substrate, so it cannot chip or peel. It has a highly ordered, porous structure that allows for secondary processes such as coloring and sealing. Anodizing is, therefore, a matter of highly controlled oxidation – the enhancement of a naturally occurring phenomenon.

Anodized finishes have made aluminum one of the most respected and widely used materials today in the production of thousands of consumer, commercial and industrial products. Aluminum Anodize coating thickness penetrates 50% into the surface of the substrate and 50% on the surface where there is some growth. *(i.e. coating thickness of .001" per side will grow by .0005" per side or surface)*

Technical Advantages

- Type II – Used for Corrosion Protection
- Type III – Extremely Hard, Abrasion Resistant
- May be Selectively Plated
- Economical, Good Dielectric Qualities
- Can be Dyed in a Number of Colors



Call: (937) 253-5311

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Medical Anodize Military Applications Aerospace



Sulfuric Acid Anodize (MIL-A-8625 Type II):

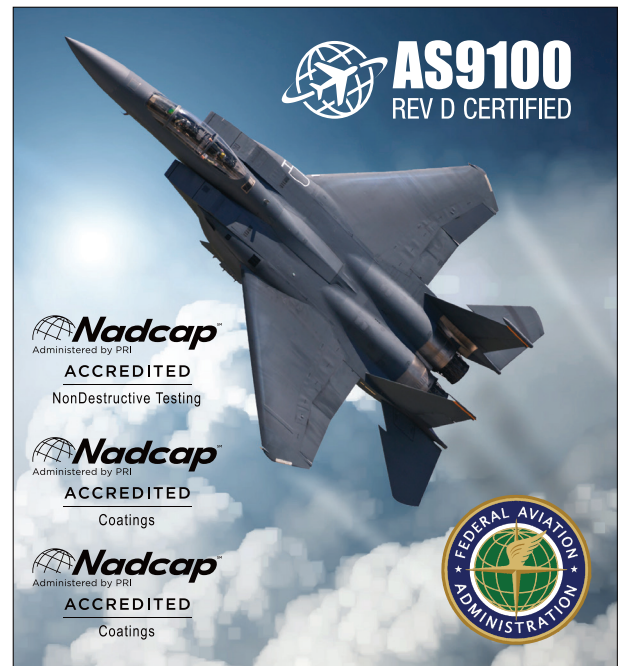
Benefits:

- Corrosion Resistance and provides good abrasion resistance
- Variety of colors:
Red, Fire Red, Blue,
Black, Olive Drab Tan,
Gold, Blue Gray & Gray.
*(*Other colors can be added)*
- Adds durability

Hard Coat Anodize (MIL-A-8625 Type III):

Benefits:

- Improved wear resistance
- Non-conductive
- Can repair worn surfaces on aluminum
- Improves surface for slide applications
- Can be dyed; however, does not yield a decorative finish
- Finish is harder than tool steel
- Can be ground or lapped



Techmetals Engineered Aluminum Anodize Finishes

Also available in the Aluminum Anodize family of products, are the Engineered Finishes we have developed to provide greater benefits for a variety of applications. Techmetals has a Research and Development team that will work closely with each client, listening to their needs and creating personalized finishing options to best fit their needs. Our commitment to customer satisfaction is truly unmatched in the industry.

OxyTech & OxyTech II

OxyTech II is an extended Type II processing that offers excellent corrosion protection of over 816 hours of salt spray testing on 6061 aluminum. OxyTech is more than just hard coat anodize, this rigid process delivers a Type III anodize finish that is not only more consistent – but also proven to outwear standard hard coat anodize finishes.

OxyLube

The same superior hard coat anodize finish as OxyTech, with the added lubricity. We have taken sub-micron particles of PTFE and impregnated them into the coating for added wear and lubricity.