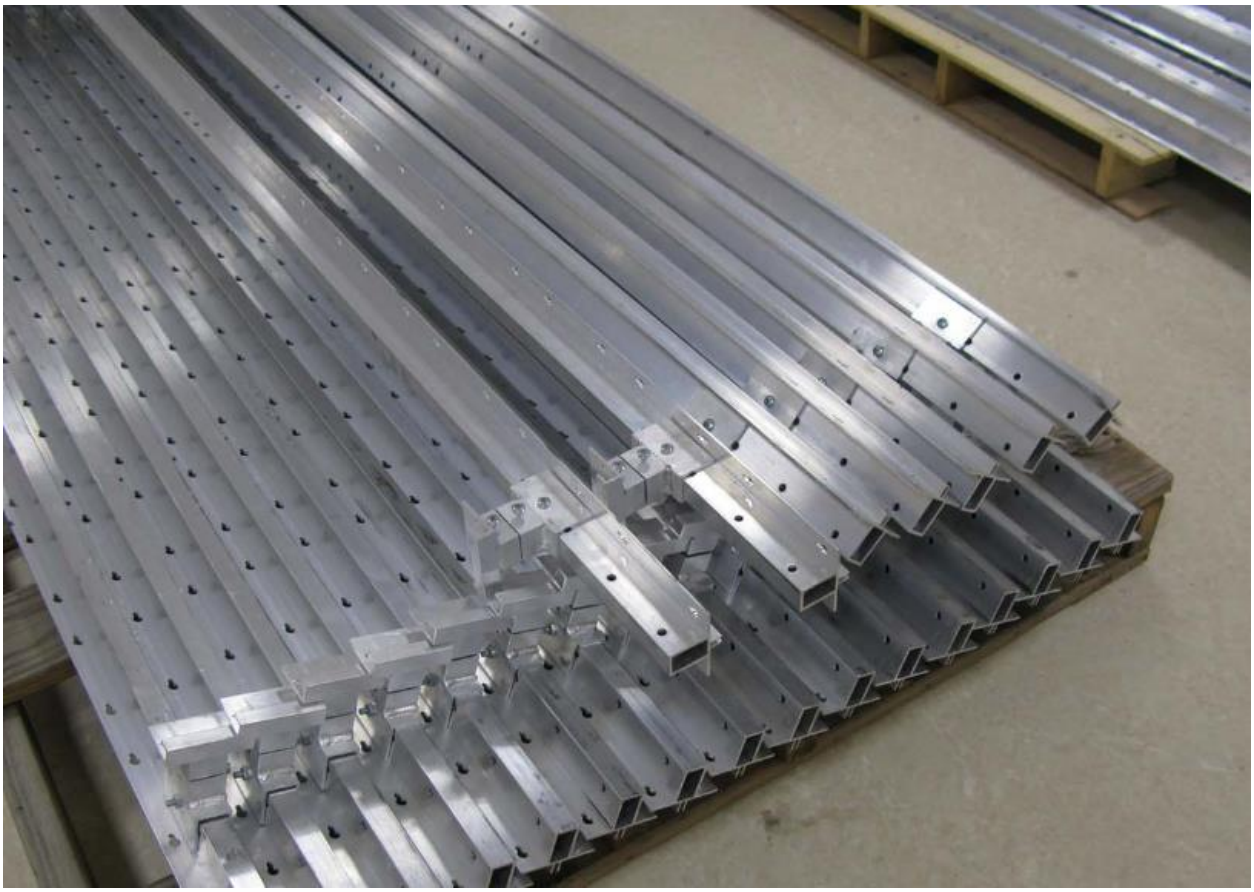
Technotes

Anodizing Aluminum



Anodizing Aluminum

Anodizing is an electrochemical process forming a porous oxide layer on the surface of aluminum for color and durability. The process involves submersion of the aluminum component in either a chromic or sulfuric acid bath. The aluminum is electrically charged, and acts as an anode - the resulting oxygen ions are released, forming an oxide barrier on the surface of the metal. With many colors to choose from, you have an attractive, highly durable finish for diverse applications including lighting, architectural, marine, electronics, displays, solar panels, railings, and sporting goods.

The American Architectural Manufacturers Association (AAMA) Specification directive 611-12 describes test procedures and minimum standard requirements for Class I & Class II anodic coatings.

Class I Architectural Coatings have > 0.7 mils of film thickness. Recommended for interior applications. Corrosion Resistance 3,000 hours salt spray.

Class II Architectural Coatings have > 0.4 mils of film thickness. Exterior applications, salt water environments, high traffic use. Corrosion Resistance 1,000 hours salt spray.

Military Specification MIL-A-8625F Hard Coat applied for extreme abrasive and environmental application have a film thickness of 1.5 to 7.0 mils.

Type II finish is produced using a sulfuric acid bath – thickness 1.8µ-25.4µ

Type III refers to Hard Coat finish – thickness 12.7µ-115µ

* Data extracted from AAMA 611-12; MIL-A-8625F; ASTM B 244-97, 487-85, 137-95, 117-07, 136-84, and 680-80 for test methods.

For more detailed information and best application advise, give us a call or email, we have a solution.

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