

**SURFACE CLASSIFICATIONS**

**Not Exposed**

This classification includes any surface not visible to the end user or a surface where esthetics are not important. These surfaces can have defects such as die lines, scratches, or handling marks. Defects that diminish the cross section of the profile are not permitted. Bangs, inclusions, dents, gouges are not permitted. Applications might be printing film clamps, fabrication jigs or tools, machine stock, profiles that will be machined, tumble deburred, finned areas on heat sinks, gears, slotwall inserts, and racking material. Recommended alloys: all available alloys.

**Visual Family**

*Profiles classed in this group require a good to excellent surface finish. Generally, but not always, these profiles will receive some form of secondary finish such as paint, powder coat or etch and anodize. The following three sub-classes describe these requirements.*

**Visual C**

A Visual C surface is generally a surface that can be seen by the end user but surface quality is not an important function of the part. These surfaces can have defects such as die lines, scratches, or handling marks only if they will not be visible from a distance of 8 feet in a mill condition or after finishing. Defects that cannot be detected from a distance of 8 feet are acceptable. Applications might be industrial construction sections, equipment parts, exposed finned areas on heat sinks, overhead tracks or frames, thresholds, and window and door sections. Recommended alloys: typically 6061, 6351.

**Visual B**

A Visual B surface is generally a surface that can be seen by the end user and surface quality is important but not the primary function of the part. These surfaces can have minor defects such as die lines, highlights, scratches, or handling marks only if they will not be visible from a distance of 3 feet, in a mill condition or after finishing. Defects that cannot be detected from a distance of 3 feet are acceptable. Applications might be display systems or frames, office furniture, automotive roof racks, electronic housings or enclosures, mounting surfaces on heat sinks, enclosure or cabinet hardware, light fixture housings, power bar housings, medical or mobility equipment, and closet door systems. Recommended alloys: 6060, 6063, 6005.

**Visual A**

A Visual A surface is generally a surface that can be seen by the end user and surface quality is the primary function of the part. These surfaces can have very minor defects such as die lines, highlights, scratches, or handling marks only if they will not be visible at "arm's length", in a mill condition or after finishing. Applications might be picture frames, appliance trim, interior sign blades, and display systems. Defects that cannot be detected at "arm's length" are acceptable. Recommended alloys: 6060, 6063, 6463.

**Critical Polished**

Profiles classed in this group require an excellent surface finish. These profiles will be polished prior to bright anodizing. Defects such as dies lines, highlights, scratches, or handling marks will not be visible after polishing at a distance of 18 inches. Applications might be picture frames, appliance trim, shower door components and display systems. Recommended alloys: 6463, 6063.

**Critical**

Profiles classed in this group require an excellent surface finish. These profiles will not be polished prior to bright anodizing. Defects such as die lines, highlights, scratches, or handling marks will not be visible at a distance of 18 inches. Applications might be picture frames, appliance trim, shower door components and display systems. Recommended alloys: 6463.

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