



Keymark

CORPORATION

ALUMINUM EXTRUSION

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50% - 70% PVDF Paint Finishes Warranty & Life Expectancy

Although Keymark Corporation warrants 50% PVDF paint finishes for 5 years (AAMA2604-02), and 70% PVDF paint finishes for 10 years (AAMA2605-02), many more years of service life should be expected. However, warranties have a margin of error built into them to insure the warranty will cover the finish performance over the specific warranty time span.

The following are explanations of what is covered in the warranty and what they mean:

Adhesion: If adhesion is going to fail, it will typically fail in the first year of its service life and the warranty will cover the issue. If the adhesion is ok from the start, it will rarely fail during the service life of the finish. PVDF finishes have been on buildings since the early 70's and still have perfect adhesion.

Gloss: Gloss is the reflectance of the painted finish and is measured on a scale from 0-100 units. Zero gloss is completely flat, absorbing all light, while 100 gloss reflects all light back. All painted finishes will lose gloss over time but some will lose faster than others. PVDF resin is extremely resistant to loss of gloss but also will lose gloss over time, primarily caused by intense UV radiation. Typical PVDF finishes have a gloss of 25-35. When gloss is lost, the gloss number will always go down and because the gloss is typically low initially, loss of gloss is not real significant over time.

Chalk: Chalk is a breakdown (typically caused by intense UV rays) of the resin system (the primary constituent) of the paint itself. 50% PVDF refers to the percentage of PVDF in the resin system (I.e.: 50% of the resin system is PVDF resin) and the same goes for the same percentage increase in 70% PVDF. PVDF is one of the best known resins to resist chalking for paint.

Fade: The leaching or oxidizing of pigment is known as fade. Like chalking, fading is also caused by intense UV radiation. All pigments will fade over time but the degree to which they fade depends on several properties. Typically inorganic pigments are the most stable and will fade the slowest while instable organic pigments can fade quite rapidly. Typically only inorganic pigments are used in PVDF paints but occasionally organic pigments are required particularly when bright, vibrant colors are desired. These pigments are always the most stable form of organic pigments but are still less stable than



inorganic pigments. To combat the greater susceptibility to fading in these less stable pigments, a clear-coat is used over the topcoat to minimize UV exposure. Unless a particular project is in an extreme environment, one should expect a PVDF paint finish to last several years beyond, and in some cases multiples of, the warranty period.

Keymark Corporation does not have control over maintenance, location, use, etc. of our paint finishes and for that reason, can not issue warranties beyond a guaranteed service-life timeframe in the most extreme environments within the United States.

In order to maintain the original beauty, even these highly durable finishes need to be cleaned occasionally (Consult AAMA specification 609 & 610-02 for maintenance instructions). When selecting a cleaning solution use mild soap solutions, avoid using strong acid or alkali cleaners as they may damage the finish.

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