

Tech Hotline

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FADING IN EIFS AND ARCHITECTURAL COATINGS

Resistance to fading is an important performance characteristic of architectural finish materials. Resistance to fading is usually a function of:

1. Product formulation
2. Ultra-violet or sunlight exposure
3. Substrate condition
4. Color intensity

While Sto uses the highest quality pigments available for its finish coatings, fading is inevitable under certain conditions. Fading can be minimized by selecting colors wisely and recognizing that certain colors should be avoided, or, at the very least, recognizing that they will have to be recoated periodically to restore them to their original appearance. General rules to follow when selecting colors are:

1. **Select light colors** – Dark, intense colors will show fading more than lighter toned colors. In general, colors with a lightness value of more than 20% will have good fade resistance. The lightness value is a measure of the relative lightness of the color. The higher the number, the lighter the color. The lightness value of any color can be approximated by comparing it to a gray scale and is published for all colors in the Sto Color System and on the Sto Color Chart.
2. **Avoid selecting colors that use organic pigments** – Certain colors such as Indigo (Sto Color No. 21415) and Aqua (Sto Color No. 21315) are achieved with organic pigments. These pigments are inherently less stable than inorganic pigments. In particular, when colored finishes are installed over an alkaline substrate (i.e. those that contain lime or cement, such as uncured portland cement plaster or concrete) the risk of fading is greatly increased.

3. **Be especially careful when selecting colors for buildings in hot, humid climates** – such as Florida or Hawaii. The intensity of UV exposure combined with rainfall and constant high humidity accelerates fading.
4. **Limit the use of sensitive colors to accent areas that can be easily maintained** – expect to recoat these areas periodically with new coating to restore them to their original appearance.
5. **Avoid installing finishes on uncured, damp surfaces or surfaces that are exposed to moisture from behind the finish coating** – these conditions not only cause a potential problem with moisture being trapped behind the coating, which could cause it to mildew, blister and peel, but may also cause the migration of impurities in the substrate that have the effect of bleaching or staining the finish.

A wise color choice can often be the difference between many years of architectural beauty or a costly maintenance program to revive the beauty.

This information is provided by Sto Corp. to assist owners in making sound decisions when selecting colors and preventing unexpected color problems.