

Floor Joint Filler Color Change

Most semi-rigid epoxy and polyurea floor joint fillers have the potential to exhibit some change in color in certain settings, and Metzger/McGuire fillers are no exception. The most common color change occurs when a gray filler exhibits a shift towards a yellowish or green tone.

On some projects, the color change can occur almost immediately after the filler has been installed. On others, the change may be more gradual. When color change does occur on a project, it often leads to questions about whether the material is defective, or whether the installer "did something wrong." In most cases the answer is "no." A majority of filler discoloration can typically be tied back to a facility's lighting. Certain lighting systems can emit UV rays within a spectrum that can actually cause discoloration of the filler, or which simply render the filler's appearance to be different. This is typically noted as a slight "greening" of the gray filler.

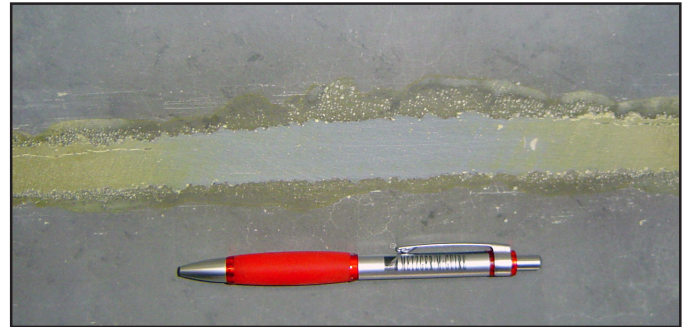
Severe Discoloration

In addition to lighting, over time we have observed a number of jobsites where environmental conditions appear to lead to more severe color changes—a shift in epoxy filler color from gray to yellow or bright yellow. Typical conditions include material installation in colder temperatures, often accompanied by the use of a temporary heating source in the building such as propane or natural gas. In some cases, an additional variable such as a curing compound or chemical admixture may also play a role. On projects where extreme yellowing of epoxy joint filler occurs, it is common to see similar yellowing in other fillers and sealants used in the building. The best way to avoid potential yellowing is to defer joint filling until the building is under permanent climate control. If the project schedule does not allow for delaying the joint filling, please contact our office to discuss project conditions and strategies to minimize the potential for extreme discoloration.

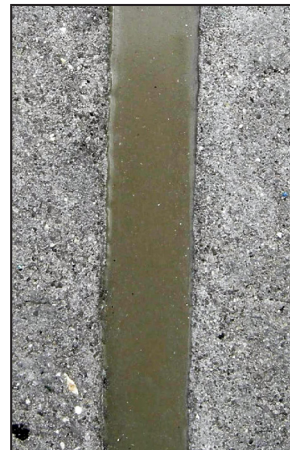
Verifying the Cause of Color Change

The easiest way to confirm whether the lighting system is responsible is to dispense the same filler in an area that is not subject to the same lighting. If there are no such unlighted areas, dispense the filler on cardboard and promptly shade it from the lighting source. Monitor it for color stability for 1-14 days, then remove the covering. If there are clear differences between the light exposed placement and the covered sample, then lighting can be identified as the cause.

If there is no detectable difference, bring the sample into different lighting conditions to confirm the color remains the same. If the sample color exhibits a truer gray tone,



Extreme discoloration typically occurs only when a variety of factors are at play including UV exposure along with installation at cold temperatures and/or in the presence of temporary heating sources.



The most common level of discoloration is a slight "greening" of a gray filler, often resulting from UV exposure.

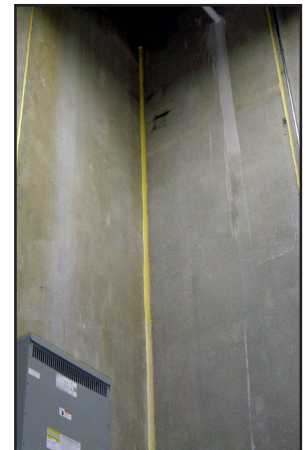


Photo taken at same project as photo above shows similar yellowing occurring on vertical wall panel sealants.

then the color rendering of the lights can be established as the cause. If it looks identical (discolored), a new material sample should be placed outside of the floor environment. If this sample shows no signs of discoloration, then an investigation of other potential environmental factors should be explored.

Is the Color Change Permanent?

Once a filler changes color, it will not revert back to its original gray. If you razor or grind off the top surface it will likely show its original color, but the newly exposed surface may discolor again if lighting has been identified as the source of the color change. Past project experience has shown that the intensity of the discoloration tends to fade with wear and time and become less objectionable. Discoloration of a filler will not adversely affect its performance or durability. Please contact our technical service department should there be questions as to the potential causes of filler discoloration on your project.

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