

Organic Build-up on Gutter Protection

Dome gutter protection systems are perceived to be more efficient than other types of gutter covers. While many of these gutter caps work very well, sooner or later an organic crust will form on the nose of the gutter guard. The amount of crust formation depends on the number and types of trees, amount and consistency of rain fall, texture of panel, and type of finish.

The organic residue is usually most noticeable on the nose (front rounded portion over the lip of the gutter) of the gutter cover. The residue is formed by dirt and tree resin falling from the trees and sticking to the gutter cover panels. When it rains, some of the residue is dissolved in the rain water. Sometimes it's washed off. After the rain stops or during a soft rain, the flow of water slows down allowing the dissolved debris to deposit on the nose of the gutter protector. This is a similar process to stalactite formation in a cave, where mineral deposits instead of organic debris form icicle-like formations.

In most cases, the organic build-up on the gutter cover is a cosmetic issue. A dirty crusty gutter protection is very noticeable and takes away from the curb appeal of the home. A lighter colored panel such as cream or white is more likely to show the build up than a black or dark brown color. The new roof granule finishes on gutter caps don't show the organic build-up. Instead, the roof granule finish seasons with the rest of the roof and eventually blends in with the roof line.

Even if the accumulated dirt isn't noticeable, the performance of gutter covers can be affected by organic build-up. There have been some extreme cases where the gutter protection has formed organic stalactites hanging from the gutters. Excessive organic residue on the nose of the gutter guards will cause the system to fail and rain water flows on to the ground instead of into the gutters.

Baked enamel finishes are more prone to crusting on the gutter toppers. A baked enamel finish breaks down from the hot sun and separates. The panels take on a chalky appearance similar to early aluminum siding finishes. The chalky panels become very sticky. Organic debris accumulates at a faster pace on a sticky surface.

Some gutter covers are embossed with a pebbled texture. Dirt and resin collects in the embossing and doesn't get rinsed out easily with the rain.

High end gutter caps are coated with a Kynar finish. The stabilizer in Kynar is fluorine versus polyester or acrylic used in the baked enamel finishes. Since fluorine is a mineral, there isn't a chemical reaction to UV sunlight. The finish doesn't separate, hence the stick chalky formation doesn't occur with these types of gutter covers. Kynar finishes are very slick and are less prone to accumulating dirt and tree resin. If there are repeated rains, then the organic build-up is less likely to occur. However, Kynar coated panels still can accumulate organic build-up in drought conditions, especially if resinous trees are present. The resin gets baked on to the finish in the hot sun and is less likely to get rinsed off in the rain.

Manufacturers are aware of the organic build-up on the gutter guard panels. Most warranties include a disclaimer stating that as a condition of the warranty, you must clean off the nose of the panel.

There are no easy solutions to the organic build-up on the gutter protectors. You can minimize the cosmetic problems by choosing dark colors where possible or using a product with a Kynar finish. Roof granule finishes will hide the crusting more than with

paint finishes. Your gutter toppers may require periodic maintenance by spraying off the nose with a high pressure hose attachment. In the case of the textured panels, it may require getting up on a ladder with a sponge and a bucket of soapy water. All gutter guards are prone to organic build-up, be sure to choose ones that will less likely show the dirt and require less maintenance.