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Dirty Roof?

The Softwash Roof Cleaning Solution

By Michael Laskowski

Have you noticed those dark stains appearing on everyone's roof? Are they on your roof? If you haven't yet noticed these stains then after reading this article you will. You will also learn what exactly those stains are, why you should care and how to clean and prevent them in the future.

Many roofs today are becoming streaked with black bacterial stains and are eventually being overcome by small silver dollar sized lichens and moss. These fungi decompose the roof's shingles to the point of requiring replacement. This however is not the necessary aging process of a roof, on the contrary, it is a highly preventable process which with the right cleaning and maintenance techniques can be completely avoided and the roof's service life maximized. Failure to clean and properly maintain your property's roof not only can result in an unsightly roof as soon as 3 years after being installed but it's service life can be cut in half. To understand how and why it is important to maintain your roof, a basic understanding of what is growing on your roof is necessary.

The staining on your roof is not a stain at all but rather an infestation of various forms bacteria and fungus. This fungal infestation usually first appears as black bacterial (*Gleocapsa Magma*) stains, typically on the north facing sides of a property's roof or other heavily shaded area. Shortly thereafter, various forms of fungus (such as moss and lichen) will begin to appear, embed their filament type root system and begin an aggressive decomposition process of the shingle. So how do you stop this decomposition process and better yet prevent it?

The simple answer is to perform routine maintenance cleanings. To properly and safely clean a roof, however requires specialized techniques, training and equipment. Mechanical removal, aka pressure washing, is not an effective form of cleaning because any attempt to use high or even low pressure to remove the fungus will cause the shingle to prematurely lose the protective granules and can potentially void the shingle's warranty. Additionally, installing zinc or copper strips to existing roof surfaces will not safely work. Zinc or copper strips require applying the strips with exposed nails which can cause leaks. Wind damage can also occur when the sealant bond is broken when the strips are slid under the shingle. The cleaning process which is recommended by the Asphalt Roofing Manufacturers Association (ARMA) is to use a non-pressure based chemical cleaning process that will safely kill the roof fungus as well as their root systems and spores. This form of specialized cleaning is known as "softwashing."

Softwashing is the process where agricultural style sprayers, using garden hose strength pressure (40 psi - 80 psi), are used to safely apply specifically formulated, 100% Biodegradable, cleaners to treat the roofing surfaces. The goal of this process is to achieve a 100% kill ratio of not only the visible bacteria and fungus, but their root system



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and spores (fungal seeds) as well. If the root system and spores remain after the cleaning service is performed, the fungus will soon regrow and stain the roof once again. This is another reason why traditional pressure washing is ineffective in treating roof staining because the pressure washer will only remove the surface layer and the underlying root system and spores will remain behind.

Once the roof has been properly cleaned using the softwash process, the black bacterial staining will be visibly gone but time will be required for the moss and lichen to disappear if originally present. When moss and lichen are cleaned using the softwash process, they will become whitish/brown in color and eventually become dry and brittle like a weed that has been sprayed with a weed killer. Over the next couple weeks to months, these dead fungi will safely separate from their root system and fall off with natural weathering (wind, rain and time). High or even low pressure rinsing should be avoided since the mechanical removal of even dead fungus can cause damage to the shingle during the rinsing process. These types of maintenance cleanings are recommended every 3-7 years in order to maintain a fungus free roof and maximize your roof's service life. Frequency of cleanings will be determined by several factors; roof orientation, tree shading, local climate conditions as well as other environmental conditions.

Softwashing takes a scientific approach to properly keeping your property's roof clean and will ultimately help to maximize its full service life. Before you spend thousands of dollars replacing your dirty roof, consider having it safely softwashed instead. ■

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