

Dirty Roof – What is that Stuff?

Gloeocapsa magma is growing on your roof – just because you can't see it yet, doesn't mean it isn't there! Asphalt, tile or metal roofs are not immune to this invasive pest that appears to be dark stains creeping up a roof. Gloeocapsa magma is a species of cyanobacteria. Cyanobacteria are an ancient line of photosynthesizing bacteria, which photolyze water generating oxygen gas. Ancient cyanobacteria are ancestral to the chloroplasts of all plants on earth. We live in nature and nature keeps trying to reclaim our properties – look up sometime and you will see the visual evidence. This bacteria grows like an algae on your roof, it grows anywhere that stays wet. Every North facing side of the property doesn't dry as quickly due to our location on the planet. Trees add nice shade, but can exacerbate the trapped moisture on the roof. Then, moss and lichen feed off the algae, creating a nice little forest bed on your roof.



Gloeocapsa Magma



The above picture shows an asphalt roof with an infestation of gloeocapsa magma. Comparatively, the picture here shows the same shingle type before infestation. Notice the difference? Those little rocks or granules help keep your roof in tip-top shape. A roof without any granules doesn't keep the rain out and a new roof can cost thousands of dollars. So, the obvious next step would be to pressure wash that pesky algae off your

roof, right? Very Bad Idea! While a pressure washer is good for stripping wood for restoration, the last thing you want is to apply that technique to your shingles. The goal, here, is to kill the infestation and to leave as many granules as possible on the roof.

The first step is to do your research: Read your roof warranty – you do not want to choose a method that will void that warranty. If you have a warranty that includes treatment for this, great! The ones I've read from ARMA and GAF both say the same thing – no pressure roof treatment. At this point, many consumers may start to get bids. I would do some more research first, just so you get exactly what is best for your roof. It's not just about price shopping; it is about getting what you pay for. A low-baller may not even have liability insurance; let alone some sort of guarantee. These are general called Chlorine Cowboys, because they spray Sodium Hypochlorite on everything, even those surfaces that will be ruined (i.e. Plants). At the same time, you don't want to be price gouged, but know that quality and safety cost a little bit more. Check a few references as any decent roof cleaner will have a stack of satisfied customers and get a certificate of insurance that will give you extra protection.

The widely accepted treatment contains:

1. Sodium Hypochlorite – gives that visual result of making those black streaks disappear
2. Algacide – does the hard work of killing off the algae, moss and lichen
3. Surfactant – helps the solution “stick” to the roof so it won’t just rinse off
4. Other Ingredients – each company will have its own proprietary recipe

The first item scares a few of you, I understand. Sodium Hypochlorite (SH) or commonly called, bleach, envisions “bleached” items. Believe it or not, but SH is used in water treatment and can be used safely. SH, not the household variety, breaks down rather quickly when exposed into a salt compound. An experienced roof cleaner will be able to explain all the safety methods needed to apply SH and how it will not discolor your roof.

Environmental Impact

Flora and Fauna

If this roof treatment kills organic matter, what will it do to my yard?

This is a valid concern and one that can only be prevented by qualified roof cleaners. No pressure roof cleaning means that the chemical solution is applied in a very controlled manner. That being said, a few precautions are necessary to protect your plants. If you have gutters, the downspouts should be covered with bags so the draining solution is collected. If a mist of the solution kills the algae on the roof, imagine what a pool of the solution will do to the environment? Additionally, soaking the surrounding ground with water will create a barrier between the plants and the spray. Sometimes, a tarp is necessary for more delicate plants.



Sodium hypochlorite is a gas and a liquid, which means that safe application is tantamount to the bottom line. When you get your roof cleaned, keep all animals and people inside and make sure all the doors and windows are securely shut. After a few hours, the SH will break down into a salt compound that will not be harmful. The aroma will be of a pool in high summer, but that too will dissipate. If there is a spill accident, a pool of this solution can kill a patch of plants. If flooded with water right away, the plant/s may survive even though it may look dead. A misting that does not get immediately rinsed will produce dead spots on leaves/petals. This will not kill the plant, only discolor it for a time. Typical shrubs, trees and ground cover are hardy enough that only a spill will harm them.

Why not take a few pictures of your lawn, plants and roof the day before your roof is treated? That way, you will have proof of the state of your plants right beforehand.

Good Luck and Let the Pros do the [Roof Cleaning!](#)