



RCIA ~ TECHNICAL BULLETIN

What you should know about cleaning your roof.

DON'T REPLACE IT CLEAN IT!

Your house is most likely your biggest investment and your roof is one of the most expensive parts of your house. It is extremely important to have the utmost in confidence in your decision before hiring a qualified roof cleaning contractor.

Certified Roof Cleaning Institute of America roof cleaning contractors only use chemicals approved by the ARMA and shingle manufacturers and do not use pressure on asphalt shingles. RCIA roof cleaning contractors also provide our customers with technical bulletins directly from www.asphaltroofing.org and shingle manufacturers to prove that our procedures and chemicals are properly formulated for roof cleaning. Our chemicals provide enough cleaning power to remove all mold, mildew, and streaks...without pressure washing or heavy rinsing.

RCIA contractors provide a 100% Guarantee your roof will look like new again!"

Pressure washing is not recommended because it will remove a large amount of the ceramic coated granules from your shingles, which will void the warranty. Even low pressure will cause granule loss and shorten the life of your shingles. If you have ever cleaned out the inside of your gutters you will notice granules in them just from the rain taking them off. Think what any additional pressure would do to your roof.

For instance, you see someone cleaning a roof with so-called "low" pressure and biodegradable chemicals and it appears they have done a good job just because the streaks and discoloration are gone, but guess what? So is a large amount of the protective ceramic coated granules which insures the shingle's warranty. The roof will no longer have the original 20-30 year warranty the customer paid for. Thousands of dollars are spent each year replacing and repairing damage caused by under skilled operators and companies who over sold their knowledge and capabilities.

Depending on how corrosive the chemicals they were using and the amount of pressure was applied to the shingles, a 20-30 year warranty roof may only have enough ceramic coated granules to last 5-15 years. There is no telling how much damage they have done until 5-15 years later the roof has deteriorated prematurely and must be replaced MUCH MUCH sooner than it should have. Make sure your roof's warranty will not be compromised by hiring a

qualified professional who really knows what they are doing, has references, the proper documents from the RCIA, ARMA, and shingles manufacturers to PROVE it.

Always use a 'chemical only' cleaning process for your roof. Roof cleaning is a completely different trade from pressure washing requiring different pumps, plumbing, hoses, nozzles, valves, chemicals, caution, knowledge, experience, skill, and insurance. The certified RCIA roof cleaners have all of the necessary tools, and have learned from the best roof cleaning professionals in the country. www.saferoofcleaning.com
Make sure you know what kinds of chemicals are being applied on your property.

1) Do not accept *"it's biodegradable"* for an answer.
Even uranium is biodegradable over 50,000 years or so.

Because many "competitors" lack our roof cleaning equipment, knowledge, training, and experience, they sometimes apply a dangerously strong chemical solution. Sodium Hydroxide and Potassium Hydroxide will dissolve the asphalt and tar on your roof, shortening the life of your shingles and voiding the roof's warranty. Even sodium metasilicate is too corrosive. Products containing sodium percarbonate (oxygenated bleach) are ineffective and will not remove streaks without pressure.

2) Do not accept *"we use low pressure"* for an answer.
What exactly do they mean by low pressure? 500-1000psi is too much and will blast off too many granules. Any more pressure than 100psi is excessive.

If the company you are asking whether or not they use a pressure washer and they say, "Yes, but it's very low-low pressure" It's only 500-1000psi and it won't damage your roof. We can not stress enough to all home owners who have asphalt shingle roofs to avoid hiring companies who use any pressure at all. A chemical only, NO pressure system is the best, safest, most efficient, longest lasting way to go.

Roof cleaning companies who "low" pressure wash roofs may have not had any complaints from the BBB for years, but it's only a matter of time when one of the roofs they have pressure washed will have to be replaced much sooner than the warranty expires. A more attractive lower price will actually be more expensive in the long run.

Gadgets like water brooms, roof gitters,
pitch witches, and surface cleaners
all operate from a pressure washer &
will all cause more harm than good.

Our chemicals do all of the work to remove streaks and discoloration from your roof and require no pressure or heavy rinsing. Because we do not have to rinse, your roof will stay cleaner longer than our competitors. Leaving the chemicals on the roof creates a roof treatment or a hostile environment for future algae growth. Each time it rains, a small amount of chemical is washed off to help re-clean your roof over and over again.

Contractors using RCIA and ARMA certified methods normally provide a warranty ranging

from 1 to 4 years depending on environmental conditions against algae regrowth on your roof. The more humid and warmer the climate, the more favorable the growing conditions for algae are, thus the warranty period is shorter than in colder, drier climates."

Concerned about your plants, pets, and landscaping?

We only spray the roof, not your plants. We always bag the ends of your downspouts, collect all the chemical run-off from the roof and dispose of them away from your landscaping. If the roof does not have gutters we will thoroughly dilute the roof cleaning chemical down to safe levels by spraying the landscaping with water before, during, and after applying chemical. After the chemical biodegrades and evaporates from the roof, the dried crystals and surfactant act as a roof treatment to keep the roof cleaner longer as it rains.

The rain actually does a better job of rinsing than if you tried to rinse it yourself because the rain is slightly acidic with a PH of 5.6. Our roof cleaning chemical has a PH of 11 and most city water supplies have a PH of 8. The rain helps reactivate the chemical at a lower pH, which gives the roof a secondary cleaning, neutralizes the chemicals better, and aids in disinfecting the mold and mildew embedded in the shingles even further. The rain does a much more thorough job, giving your roof a much longer lasting cleaning.

RCIA contractors have had to go behind many competitors who use chemicals NOT approved by the ARMA or shingle manufacturers or use no chemicals and pressure wash or rinse their customer's roofs, which start growing mold and streaks much sooner than our customer's roofs.



technical bulletin

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Algae Discoloration of Roofs

For many years, roof discoloration caused by algae has been observed throughout the United States and Canada. This is commonly referred to as "fungus growth." The discoloration usually has a brown to black appearance, and may be mistaken for soot, dirt, moss, or tree droppings.

The primary species of algae being observed is *Gloeocapsa Magma*. This type of algae is contained in and transported through the air, and tends to collect and grow upon roofing structures. Natural pigments produced by this algae may cause a white or light colored roof to gradually turn dark brown or black. The algae discolorations should not be confused with moss or tree droppings, which typically produce only localized discolorations.

This type of roof discoloration has been most widespread in the Gulf States and along the Northwest and Eastern Seaboards. It is not, however, confined to only these regions. Algae growth occurs to varying degrees in all regions of the country, especially those subjected to warm, humid conditions. It should be noted that almost all types of roofing systems are susceptible to algae discoloration. It is, of course, most readily visible upon white or pastel roofs, while it is not so visible upon darker shades of roofing.

Algae discolorations are difficult to remove from roofing surfaces, but may be lightened by applying a solution of chlorine bleach, trisodium phosphate, and water. Solutions for these ingredients may vary between shingle manufacturers and depend on the amount of discoloration. Solutions range from one cup TSP, one gallon bleach and five gallons of water, to one cup TSP and 2.5 gallons each of bleach and water.

First, gently disperse this solution on the roofing surface. Use normal precautions for handling bleach. Be sure to apply it carefully to avoid damage to other parts of the building and its surrounding landscape. Avoid scrubbing the surface, as this friction may loosen and remove granules. If possible, always work from a ladder and/or walkboards to avoid direct contact with the roof surface. Observe all possible safety precautions when working on or near the roof. Finally, rinse the solution from the roof by gently spraying the surface with water. Be warned that this solution application and rinse process will make the roof surface slippery and potentially hazardous to walk on during treatment.

The effectiveness of such cleaning techniques are only temporary, and discoloration will likely recur. However, several types of algae resistant roofing products have been developed, and are now commercially available. These asphalt roofing products are specifically designed to inhibit algae growth for extended periods of time.

Caution!

High pressure washing systems for algae removal should not be used.

Note: This document was prepared by the Asphalt Roofing Manufacturers Association and is disseminated for informational purposes only. Nothing contained herein is intended to revoke or change the requirements or specifications of the individual roofing material manufacturers or local, state and federal building officials that have jurisdiction in your area. Any question, or inquiry, as to the requirements or specifications of a manufacturer, should be directed to the roofing manufacturer concerned. THE USER IS RESPONSIBLE FOR ASSURING COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

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Algae Staining on Shingled Roof Surfaces

Steep Slope Technical Point

Updated: 10/07



*Quality You Can Trust Since 1886...
From North America's Largest Roofing Manufacturer™*



Steep Slope Technical Point

TO: Steep Slope Sales Team,
GAF-Elk Contractors, GAF-Elk
Distributors.

FROM: Contractor Services

DATE: 10/1/07

No: I02-07

SUBJECT: *Algae Staining On Shingled Roof Surfaces*

<i>What Are Those Black Stains On The Roof?</i>	Those black stains are Algae. Algae appear as dark stains on shingles that usually cover more area on the lower section of the roof and taper as they reach the ridge.
<i>How Does A Roof Get Algae?</i>	Algae spread from one infected roof to another via airborne spores. These spores land randomly on a roof and take root. A protective sheath creates the dark color the algae forms to protect itself from UV rays.
<i>How Does It Grow?</i>	Algae require moisture and proper temperatures to grow. Dew is the primary moisture source. Algae are found predominantly in the Southeast, but it can and will grow nationwide. The algae generally grow on the northern exposures of the roof since this exposure generally receives less sunlight. Algae are well adapted to extreme conditions.
<i>What Solutions Do I Have?</i>	<p>1. Install Algae Resistant Shingles, such as GAF-Elk's shingles which have a specially formulated granule that inhibits algae growth, keeping your roof looking new for years to come.</p> <p>2. If a new roof is not an option, GAF-Elk recommends cleaning the roof with a special mixture. That mixture is: 4 gallons of water, 1 gallon of bleach and 1 cup of TSP (Tri-Sodium Phosphate-or acceptable phosphate-free substitute) found at many home centers. Apply this mixture with a garden sprayer, let sit on the roof surface for up to 20 minutes, and rinse with low-pressure water. Be sure to protect any shrubs below. Remember, the roof surface will become slippery when wet- be careful!!!</p>
<i>What NOT To Do!</i>	Do not power wash the shingles to clean the shingles. Some roof cleaning companies offer this service. However, it is not recommended as it may dislodge granules, which can lead to premature shingle failure.
<i>What GAF-Elk Shingles Can I Use?</i>	GAF-Elk Designer Lifetime Shingles have StainGuard® Protection nationwide (all except Grand Sequoia). Additionally, Timberline® Prestique® 30, Timberline® Prestique® 40, and Timberline® Prestique® Lifetime have StainGuard® protection in all areas except for the West. Finally, Royal Sovereign® is also available with StainGuard® protection in select areas. All colors have Stain Guard® Protection.
<i>Where Can I Get More Information?</i>	GAF-Elk Technical Services can assist you... with these and other questions you may have regarding your new roof installation. GAF-Elk Technical Services can be contacted at 800-ROOF-411 (800-766-3411) . Also, <i>the GAF-Elk website is a great resource</i> for just about any question you may have or for additional information you may require. That site is at: www.gaf.com .

*except west zone



Extensive algae growth.



Geographic potential map.