

To Clean or Not to Clean Your Roof

By Gordon Roberts, Finns Cove (reprinted from the Waterford Lakes Fountain of News, September 2002.)

Many of us have noticed as our Waterford Lakes neighborhoods mature that the roofs are becoming stained with dark streaks or marks. The ugly “mildew” on asphalt shingled roofs found around Florida is not mildew, but algae. Observe the staining found on any roof. Notice that the areas found around chimneys, vents, and flashings appear to be noticeably cleaner than any other part of the roof. The reason is that the metals contained in the vents and flashing (copper and zinc) inhibit algae growth by releasing metal ions over time.

Many people feel pressured by neighbors and homeowners associations to clean their roof. There is also a myriad of companies promising beautiful roofs. Make an informed choice before making your decision to clean your roof. Check the manufacturer's recommendations and warranties. To do anything less may cost you more in the long run. When the time comes to re-shingle, check out the new shingle products that contain algae inhibitors such as copper and zinc.

Algae spores grow wherever they find minerals, moisture, warmth, and light. The latter three are readily found in Florida. Where does the algae find minerals to eat, thus forming the fourth and final element necessary to sustain algae growth? The mineral granules on the shingles!

The typical asphalt shingle happens to be the predominant roofing material used in Florida. Specifically, these shingles are made of base material that is either organic felt or glass fiber mat and mineral granules that compose the shingle surface. The felt or mat gives the shingle strength while the mineral granules provide protection from impact, ultraviolet damage, and improve fire resistance. The life spans of shingles in Florida range from 15 to 25 years. This information was obtained from the Florida Association of Roofing, Sheet Metal and Air Conditioning Contractors (FRSA).

3M and ISP Mineral Products, Inc. are two of the largest granule manufacturers for shingles in the United States. They market these granules to various shingle manufacturers, such as Owens Corning, GAF, U. S. Intec, Inc. and Georgia Pacific. Admittedly, the granule manufacturer 3M states “dark streaks formed by algae can absorb heat from the sun which can cause premature deterioration” of the shingle. However, they further state that the alga does not cause direct damage to the roof. The same cannot be said with chemical cleaning or pressure cleaning. 3M also warns that if a homeowner tries pressure-washing or chemical solutions to clean the algae stains “roofing granules can be knocked off and (cleaning) solutions decrease the life of the roof.” Owens Corning specifically says that pressure washing is not recommended due to the possibility of removing granules, thereby “shortening the life of the Roofing System.”

Numerous “self-help” and professional sources recommend chemical treatments utilizing various concoctions involving chlorine bleach and Trisodium Phosphate (TSP) mixed with water. Most legitimate sources caution that chemical treatments void shingle warranties, cause plant damage, and permanently damage shingles. Further, it is only a temporary solution and must be repeated every two to three years. The website --<http://www.HomeRepair.About.Com/>

even warns that sodium hypochlorite (bleach) neutralizes chemicals used to deter termites and voids termite warranties.

Shingle manufacturers do not recommend the "self-help" and professional chemical treatment approach. A technical representative with shingle manufacturer U. S. Intec, Inc. says that "such cleaning, besides its repeated costs because it is only a temporary solution, is usually unsatisfactory because a) Cleaning compounds tend to dry out and age the shingles; b) even if a cleaner uses a long brush instead of walking on the roof, granules are still dislodged; and c) cleaning solutions may run off on shrubbery and damage it."

The other method of removing the algae is pressure washing. Granule manufacturers, and shingle manufacturers both warn against this method for one very simple reason. It removes the protective granules from the shingles. Other sources warn that pressure washing can damage the roof. Indeed, I know of one neighbor who had his roof cleaned using "algaecide applied at low pressure" and ended up with roof damage after the cleaning. Our houses are of the same design and both built by the same builder. It seems the shingle manufacturers were right.

Ultimately, only the homeowner can decide which is the lesser of two evils, ugly algae or premature deterioration of the shingles. I have concluded that any method of cleaning is only temporary, will undermine the structural integrity of the roof, and greatly reduce the life span of the shingles. Accordingly, an alga is the lesser of two evils. But when the time comes to replace my roof, I will invest in the algae resistant products that were not available the last time my home was re-shingled.