

How to get moss off roof shingles, and keep it off.

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Jim had an interesting problem with his mother-in-law's house. The 25 year old roof had no moss, ever. Then he re-shingled and the north and east sides have been constantly covered in moss. Why and what to do about it?

Zinc impregnated shingles

For a bit more money you can buy shingles that have chemicals in the shingles themselves that prevent the growth of moss. That's probably what Mom had on her roof before Jim re-shingled.

Regular shingles don't cause the moss to grow, but they do allow it to grow.

Removing Moss from shingles

To get rid of moss, first carefully scrape off any thick moss, without scraping hard on the shingles. Watch out, this is slippery stuff. Then use either a product specifically designed as a roof shingle cleaner, or a deck cleaner. But only use cleaners that have no bleach in them -- the non-bleach "restorers" for decks work well. You may need to use a soft-bristle brush and a hard spray of water. But be careful with power washers -- you could easily strip the granules off of the shingles so keep the pressure low. Let the chemicals and the flow of water do most of the work.

Keeping Moss off of shingles

Moss can be kept off of roofs by attaching zinc strips near the top of the roof. The rain water will take minute quantities of zinc off these strips and the flow of this zinc solution over the roof will prevent any moss from getting started. It won't remove moss that is already established -- you have to clean that off -- but it will keep a clean roof moss-free. Nail the strip under the shingle, but let it stick out a couple of inches onto the open roof. You need to add strips below any obstructions that stop the water flow, like below chimneys and dormers.

The strips I showed on the show are called Shingle Shield and they offer the convenience of fitting neatly and snugly up to the shingle tabs. You can also find rolls of zinc to do the same job. On the West coast you can buy zinc pellets to scatter under the railings of decks for the same purpose. Although available in BC hardware stores, they are very difficult to find anyplace else. Apparently the stores think this is only a coastal problem -- but zinc rolls are listed in the Home Hardware catalogue. In the Montreal area both strips and pellets are available from roofing supply stores like Materiaux Dajet (Lachine) or any Roofmat location in Quebec. Here is one web sites that sell rolls of zinc by the post that are less expensive than the specialized zinc strips: ZincShield at zincshield.com. Also you might want to read a very interesting article about avoiding herbicides by scrolling down to "Moss on Roofs - Factsheet" at www.Pesticide.org.

It doesn't work without rain

Yet Bill from Red Deer Alberta says that using zinc against moss is a farce: "Just caught the tail end of your spot on the weather network regarding roof moss. You suggested zinc strips. I can tell you from experience that the only people who get satisfaction from that solution are the sellers of zinc strips. I had it done on my cedar shake roof three years ago and did not have any reduction in the development of moss in the shady parts of the roof until I sprayed the areas with a dilute solution of chlorine bleach. Now that works and after a few weeks the stains from the bleach were not noticeable. Please don't delude your watchers with the zinc myth!"

Well Bill, This is one of those building science things that are very climate dependent. Zinc strips do in fact work wonders but they require abundant rain. Red Deer is almost a desert. You apparently do have enough shading and tree cover to grow moss, but not enough to activate the zinc strips. To get them to work in your area you would probably have to put a sprinkler on your roof. I can't recommend using the bleach because not only does it cause stains, it actually will degrade the protective oils in

the cedar shakes or the asphalt in asphalt shingles, loosening up the protective gravel topping and shortening the life of your shingles. You might want to look at cutting back the trees to get the drying winds of your climate to keep your roof dry enough to not permit the growth of moss in the first place. Will anti-moss tactics harm metal rain gutters?

Many roofers hesitate to use Zinc on a roof that has metal rain gutters because they fear that the zinc will corrode the rain gutter. They have experienced corrosion and failure of aluminum rain gutters, aluminum rails and aluminum siding when these items were installed with galvanized fasteners – and galvanized means zinc coated steel.

Electrolytic corrosion

What they experienced is electrolytic corrosion where an electrical current between two pieces of different metals causes corrosion. Two pieces of different metals exposed to the normal effects of weather changes outdoors will generally create small electrical currents that at times flow from one to the other causing corrosion. What is important is to realize that generally one metal will corrode the other, but not the other way around.

The hierarchy of metals

There is a hierarchy of metals, and under electrolytic conditions, ones higher in the hierarchy will corrode those below it, but not the other way around.

Solid zinc and solid aluminum should not be in direct contact with each other – such as zinc coated steel fasteners screwed through aluminum rain gutters. In this case, what happens is that the aluminum will corrode the zinc until it reveals the steel, then the steel will begin to corrode the aluminum! Kind of like the game of Rock – Scissors – Paper.

However all the zinc based products used on a roof to keep moss off, including steel strips covered in zinc are not in direct contact with the aluminum – not allowing an electrolytic reaction – and the zinc that is washed down the roof into the gutter is in fact zinc carbonate (the oxidization of zinc) that will not have any corrosion issues with steel, aluminum or copper. It is this liquid solution of zinc carbonate that prevents moss from starting to form.

Bottom line, zinc loaded shingles or zinc coated metal strips on the top of the roof, or liquid zinc will not damage metal rain gutters; aluminum, steel or copper because there is no electrolytic activity between the zinc carbonate and the metal gutters.

But copper can be corrosive to other metals without the electrolytic activity. Hence copper impregnated asphalt shingles, which are available in some regions to fight moss, should not be used with Aluminum or steel rain gutters as free copper can corrode these metals. In this case you should install copper rain gutters to avoid problems.

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