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## ALGAE DISCOLORATION OF ROOFS

Occasionally light coloured asphalt shingle roofs may discolour with a brown to black stained appearance. Although this staining sometimes is mistaken as dirt, moss, or even granule loss, it is caused by a species of algae known as *Gloeocapsa*. Natural pigments produced by the algae cells result in the dark discoloration, usually visible after the roofs are about five to ten years old.

Historically this phenomenon has been more common in southern coastal U.S. areas, but has recently become more common in the northern U.S. and into Canada. Although most noticeable on light shingle colors, the algae stain affects all asphalt shingle roofs, including darker colors.

The staining caused by the algae is in no way indicative of a shingle defect. This is an aesthetic concern only and has never been shown to seriously harm the shingle or significantly shorten the life of the roof. If the homeowner wants to restore the natural appearance of the roof, there are various options available.

1. High pressure washing is sometimes recommended by roof cleaning service companies. This is not recommended as it can quite often result in damage to the asphalt shingles, primarily due to the loosening and removal of the mineral granular surfacing. It is very important that the granules be left intact on the shingles as they provide protection for the asphalt from ultraviolet radiation.
2. For anyone with a new roof construction, it is possible to install a zinc metal or other galvanized type metal strip near the ridge of the roof. As the metal ions oxidize and erode off of the metal strip, they wash down the roof inhibiting cellular algae growth. (This is why the staining on algae discolored roofs is usually less or non-existent below metal roof attachments such as flashings, aluminum-sided dormers, antennae anchor wires, etc.) Please consult your roofing material wholesaler or dealer for information on these types of metal strips.
3. The algae discoloration is difficult to remove from roofing surfaces, but it may be lightened with a diluted solution of chlorine bleach, trisodium phosphate and water. Specifically, one part chlorine bleach to three parts water with a quarter cup of trisodium phosphate. Gently spray the solution on the shingles. Apply the solution carefully to avoid damaging other parts of the building or the shrubbery below; mild scrubbing in severely stained areas may be required, but avoid harsh scrubbing as this may loosen and remove the granules. The bleach solution may make the roof slippery so it may be advisable to work from a ladder or walkboard to avoid walking directly on the shingles. Thoroughly rinse the solution off the roof with a gentle

spray from a hose. Historically this cleaning option has been shown to be only a temporary relief from the algae discoloration. Repeated applications may be required every few years.

4. A commercially available environmentally friendly soap solution has recently come on the market, known as Safer's De-Moss. Although we have no specific comments or recommendations regarding these cleaning solutions, more information on the availability of Safer's De-Moss may be obtained by phoning the manufacturer at 1-800-387-5306 (or 416-291-8150).
5. Due to the increased occurrence of algae discolored roofs in the southern U.S., shingles are now available with small quantities of zinc or copper granules embedded in the mineral surfaced granule coating. These particles inhibit the algae growth through some of the life of the asphalt roof.

[\[return to listing\]](#)

***Canadian Asphalt Shingle Manufacturers' Association***