**TECHNICAL BULLETIN**

**ALGAE GROWTH ON ASPHALT SHINGLES**

_SUPERSEDES PREVIOUS BULLETINS_

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**Issue Description:**

Algae growth may cause discoloration on roofs resulting in brown to black streaks on a rooftop. Algae may be mistaken for soot, dirt, or tree droppings, most of which typically produce only localized discoloration. The primary species of algae being observed on roofs is Cyanobacteria Gloeocapsa Magma. This type of algae is contained in and transported through the air, and it tends to collect and grow on roofs. This type of roof discoloration has been most widespread in eastern United States. However, it occurs to varying degrees in all regions of the country, especially those subjected to warm, humid conditions, and it is most prevalent on roofs with northern exposure. Green algae (typically green in appearance) or moss sometimes found on roofs with northern exposure, overhangs or high moisture areas, is not the same species.

**Recommendations:**

Algae discoloration can be difficult to remove, but may be lightened by spraying a diluted solution of chlorine bleach and water on the roof. Prior to applying the solution, all ground vegetation directly under the roof should be covered. Solution should be a mixture of one gallon each of bleach and water (1:1). This solution should be sprayed on the roof and left untouched for approximately 10-to-20 minutes. **Do not scrub or use high-pressure power washing equipment. This will loosen and remove granules, thereby shortening the life of the roof covering.** After approximately 10-to-20 minutes, the roof should be sprayed with water, taking care to thoroughly flush the roof and the greenery around the home (grass, bushes and shrubs). When algae growth is extensive the cleaning process may need to be repeated. This technique is typically temporary, and the discoloration may recur. **Wear appropriate fall protection when on the roof and proper PPE, such as slip resistant shoes/boots and eye protection while cleaning the roof. Keep in mind that roof will be slippery when wet and caution should be taken when performing this task. When making a decision to clean your roof we recommend you consult a licensed/certified roofing professional.**

**How Does Algae Affect the Performance of Asphalt Shingles?**

Owens Corning has not seen evidence that algae deposits affect the performance of asphalt shingles.

**Algae Resistant (AR) Shingles:**

Asphalt shingles with algae-resistant mineral granules remain the most effective solution available for reducing cyanobacteria Gloeocapsa Magma algae growth described above. These products incorporate metals such as copper in the mineral granules. The algae-inhibiting properties of such metals were discovered by observing that algae staining was reduced or did not occur beneath the metal vents or flashing. The algae-inhibiting effects come from a gradual dissolution or leaching of metal under normal weathering conditions. Owens Corning® Roofing utilizes algae-inhibiting technology and offers a complete line of algae-resistant asphalt shingles. These products do not address green algae (typically green in appearance) or moss sometimes found on roofs with northern exposure, overhangs or high moisture areas.

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