

Variations in Color Appearance on Newly Installed Asphalt Shingle Roofs

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Homeowners may look at their newly installed roof and think that the shingle color does not look like the picture in the brochure. In fact, variations in the appearance of asphalt shingle roofs are not uncommon, and generally occur for five reasons: color shading, back surfacing transfer, staining, excessive surface asphalt, and deviation from installation instructions.

Color Shading

Color shading is usually the result of variations in surface reflectance in different areas of the roof. Even slight differences in shingle texture can make color shading perceptible. This may occur more frequently with black and other dark-colored shingles since only a very small amount of light will reflect from a dark surface.

The variations that cause shading of black or other dark-colored shingles are so slight that they are difficult to detect during the manufacturing process. With white and other light-colored shingles, the total amount of light reflected is considerably greater, resulting in reduced potential for color shading. Shingle manufacturers will often use surface granule blends to reduce the potential for color shading by incorporating a variety of different colors, which help reduce shading by making observable differences less noticeable. Color shading typically varies with the time of day, light intensity, and viewing angle.

Back Surfacing Transfer

Fine particles placed on the backside of shingles so they do not stick together in the bundle can rub off onto the colored granules on the exposed shingle surface. This may cause temporary appearance variation immediately after the shingles are installed. However, natural wash from rainfall will eventually remove this loose backing material from the shingle surface.

Staining

Staining may occur when shingles are stacked or stored for extended periods. Lighter oils in the asphalt coating may seep between and migrate onto neighboring surface granules. This is generally eliminated by natural weathering over time.

Excessive Surface Asphalt

One step in the shingle manufacturing process is pressing the surface granules into a hot asphalt coating. This can occasionally result in small amounts of asphalt rising between the

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surface granules and affecting the appearance in a manner similar to color shading. Natural weathering may reduce the variability depending on the amount of over-pressed asphalt.

Deviation from Installation Instructions

Deviations from the manufacturer's printed application instructions by the roofing contractor may also result in an unanticipated visual patterning. ARMA recommends that installers follow manufacturer application instructions to avoid patterning.

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