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Technical Advisory Bulletin

To: GAF Residential Sales, GAF Contractors, Field Services, AIS, CARE
From: Technical Services
No: TAB-R-167

Color and Shape Variations with Slate Roofs

What Are Color and Shape Variations?

Please remember that slate is a completely natural material, so there can often be color and shape variations in individual slates, or from one lot of slates to another. Most of these common color and shape variations are most noticeable in certain lighting conditions. The majority of color and shape variations are not detrimental to the roof's performance but can alter the aesthetics of the slate tile. Some common slate imperfections include:

- surface efflorescence ("milk spotting")
- rust and curved
- warped slate

What Does Natural Weathering Of Slate Look Like?

Characteristics of Slate After Natural Weathering... exposure to the elements can lighten the overall color tones of the slate or create a light bronze, buff or tan visual appearance after weathering (typically 18-24 months). These natural weathering characteristics are:

- Not related to surface efflorescence or rust.
- **Not** detrimental to the structural integrity or performance of the slate.
- Desired by many architects and property owners for the natural and rustic appearance.
- Explained in further detail in product literature.

What Is Surface Efflorescence?

Surface Efflorescence, often referred to as "milk-spotting" in the slate roofing industry, is:

- A white surface color that may naturally occur in stone products.
- Often caused by the reaction of the slate to wetting, drying, and thermal cycling or exposure to airborne pollutants.
- Typically less visible over time as the slate naturally weathers.
- Not detrimental to the structural integrity or performance of the slate.

What is Rust?

Rust is:

- Often caused by pyrite inclusions, a naturally occurring substance, which can be found in some natural slate products such as the TruSlate® Premium Roofing System.
- Typically more visible as the slate is exposed to the elements.

Can Curved or Warped Slates Affect Long Term Performance?

Curved or Warped Slates... occur naturally. Minor curving and warping will not likely affect the long-term performance of the slate; however curving or warping may cause the slate to sit improperly on the slates above or under it or in the TruSlate® Batten & Hanger System.

- Failure of the slates to sit properly may affect long-term performance of the system. Any slates that fail to sit properly should **NOT** be installed.

What Should I Do If I Notice Any Of The Issues Noted Above?

Before Installation, Always be Sure to:

- Examine slates for issues with surface efflorescence, rust, curvature and warping.
- Cull out slates exhibiting severe issues of surface efflorescence, curvature or warping. Do **NOT** install these slates.
- Cull out slates exhibiting any rust spots or iron inclusions (shiny metallic clusters). Do **NOT** install these slates.
- Pull, mix and install slate from all crates on the jobsite to avoid color patching on the roof.
- If you observe a significant amount of slates with the above issues or you need assistance determining whether a color or shape variation is severe, please contact Technical Services at the number listed below.
- For information on warranty coverage, please see the TruSlate® Ultimate Pledge™ Ltd. Warranty or TruSlate® Smart Choice® Ltd. Warranty.

Questions?

GAF Technical Services Can Assist You... with these and other questions you may have regarding your new roof installation. Technical Support Services can be contacted at 800-766-3411. The GAF website is a great resource for just about any question you may have or for additional information you may require. Please visit www.gaf.com to find the latest information on our products and their installation.

Important: This document supersedes any prior GAF Technical Advisory Bulletins on this topic. Please always check www.gaf.com to make sure you have the most up to date information.