



# Technical Bulletin #25

## COLOR

Concrete tiles can receive their coloring in a number of different ways but the most common methods used in America are slurry coats and integral coloring. Simply put, integrally colored tiles have the pigments mixed into the concrete mix prior to forming and slurry coating involves spreading a concentrated mixture of cement, pigment and water to the top surface of the tile immediately after forming. There are a number of additives that may be incorporated into each method to achieve unique effects, shades or color tones.

The difference in appearance is relatively easy to discern since the slurry coat typically creates bright colors and a shiny surface while the integrally colored tile normally displays a more natural finish with muted color tones. Deciding which tile to use will depend on a variety of issues, not the least of which is personal preference. It is important however to understand a few things about the two different coloring features.

A few roofing products such as natural slate or fire-glazed clay maintain their colors quite well, but their high costs (often several times the cost of concrete tiles) place them out of the reach of most consumers. Therefore, many consumers opt for concrete tiles, which are expected to last for the life of the structure, but do experience changes to their color and appearance as they are exposed to the weather and elements over the years.

We're often asked about the pros and cons of slurry versus integral color and listed below are some of the issues that should be considered when making a selection.

- Both color systems utilize a variety of synthetic pigments.
- Integrally colored tiles have the pigments mixed into the body where they remain for the life of the tile. Some surface erosion may affect the color and appearance of the tiles over time, but the color remains in the body of the tile.
- Slurry coated tiles are typically selected by a designer looking to make a dramatic color statement on the roof. Because all of the pigment is concentrated on the top surface of the tile, the roof displays brilliant color and glossy texture that enhances the "new house" look that builders desire to entice homebuyers. The down side to this type of tile is that the pigment takes the full brunt of nature's onslaught without protection from the body of the tile. Sun, rain and dirt attack the coating and gradually erode the color away from the tile. This process is gradual depending on local environment and weather conditions but ultimately the original color will be gone leaving a shaded appearance where the body of the tile shows through.
- Fortunately, the strength and integrity of the tile itself is not diminished by color loss in either tile. Both types of tile lend themselves well to recoloring and there are a number of products available that are used to rejuvenate and reseal roof tiles. Proper preparation and material selection is important when choosing to recolor a tile roof and it is recommended that a professional experienced in this process be used. Most of these professional companies use products for recoloring that are high-grade acrylics and provide a written warranty that ranges from 8 to 10 years.

In hot, humid climates, mildew and algae can grow on the tiles. While this growth, which can destroy other roofing materials, can be unsightly, it will have no adverse structural impact on concrete tiles. If the owner chooses, tile roofs with mildew and algae can be cleaned and recoated as mentioned above.