



shade variation

Virtually every stone, ceramic and porcelain tile, other than pure black or white tiles, has some degree of shade variation even in the same production run.

How to Deal with Shade Variation in Tile?

You should expect to find shade variation in stone, porcelain and /or ceramic tile?

It's not a defect. Rather, it's part of the stone, porcelain and ceramic tile manufacturing process.

And, as printing on tile has gotten more sophisticated, you'll find greater ranges in patterns and shades incorporated into the design. That, in turn, better emulates what you find in natural stone or wood.

In other words, you should definitely expect to find shade variation.

To help you find the right range, though, you'll want to look at shade variation ratings.

What Exactly is Shade Variation?

Shading in Natural Stone is an inherent & desired characteristic.

Like snowflakes and people, it is safe to say that no two pieces of stone are exactly alike. Even if two slabs were cut from the same block the visual results will differ. Therefore, we suggest that all stone users should celebrate and embrace these variations by turning them into the focal point of a design plan.

First, let's review what produces these variations. No matter how you twist it, turn it, or spin it, they are a product of nature. According to the Natural Stone Council, "many things affect the ultimate graining and coloration of natural stone including underground springs, mineral deposits, earth shifts, temperature, natural solutions in the earth, and pressure these elements receive over time." Although man attempts to emulate nature's creativity, "there is no way to duplicate these naturally occurring factors in a laboratory." These conditions produce the unique veins in marble and the grains in granite. These veins vary in shape, size, concentration, and thickness,

and thus create movement. Stone can be fine, medium, or coarse-grained creating variations in texture.

Regardless of the genesis, it is important to know how the marble, granite, limestone, or other natural stone will look when it is in place. Let's consider a few points to aid in the thought process.

- **Color:** The range of color available in natural stone may be the opening for any conversation on the product. After all, color is one of the single biggest factors in any design scheme. Beyond basic beige and white, there are values of brown, gray, green, yellow, peach, black, rose, blue, etc., etc. Each color family ranges within itself to produce even greater character.
- **Size:** The size of the stone element and the space it is covering is significant. The tile shape can both minimize and maximize shading.
- **Lighting:** This may seem obvious. But sometimes not so much! Shading is easily influenced by lighting conditions, so be mindful.
- **Location:** Perspective matters. Think about how you'll be seeing the stone. Floor? Wall? Top? Consider this point, please.
- **Pattern:** Pattern makes natural stone visually interesting. What impact do you want the stone to convey? Are you looking for something subtle or more dramatic? Pattern and shading can play well together or they can conflict and clash!

Shading in natural stone implies a certain degree of integrity.

Shade variation has to do with the appearance of the stone, porcelain or ceramic tile you are considering

It happens because the tile production process takes natural clay elements, bakes them at very high heat and, depending on the materials and conditions, may generate slight changes from batch to batch and dye lot to dye lot.

- Batch to batch - think of the variation you might notice between two cookie batches due to how hot the oven is, for example.

- Dye lot to dye lot - think about the differences in cookies made from different dough made on another day...

It also happens on purpose as part of a specific tile design.

To help make sense of shade variation, the Ceramic Tile Distributors Association (CTDA) came up with a shade variation rating system in or around 2001

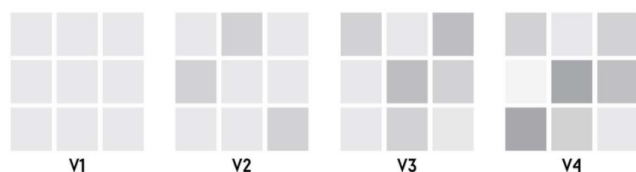
CTDA Rating System for Shade Variation in Stone, Porcelain and

The shade variation rating of a tile indicates the degree to which its color, tone and texture vary among individual tiles. Virtually every ceramic and porcelain tile, other than pure black or white tiles, has some degree of shade variation even in the same production run.

The CTDA shade variation rating system for stone, porcelain and ceramic tile consists of the following categories:

- **V1 = Uniform Appearance** - Differences among pieces from the same production run are minimal.
- **V2 = Slight Variation** – Clearly distinguishable differences in texture and/or pattern with similar colors.
- **V3 = Moderate Variation** – While the colors present on a single piece of tile will be indicative of the colors to be expected on the other tiles, the number of colors on each piece will vary significantly.
- **V4 = Substantial Variation** – Random color differences from tile to tile, so that one tile may have totally different colors from that on other tiles. Thus, the final installation will be unique.

You see each represented visually in the images below.



Shade variation can present challenges if you aren't aware of the ranges and the implications for your floor or wall. We want you to be thrilled with your purchase so in order to better ensure your happiness it is important that you understand a few things about tile and stone.

Expected Manufacturing Variation from Lot to Lot

As we mentioned above, stone, ceramic and porcelain tiles are earthen products with a degree of expected variation in size, shade and texture from tile to tile within a single box or dye lot.

Furthermore, modern manufacturing techniques are so sophisticated that many tiles have been designed to have up to 40 or more different images within its production in order to better mimic the differences in color, shade, variation, and veining inherent to natural stone.

In the case of natural stone, mother nature has her own plans. You can't

assume that one piece of stone will be exactly like another.

Variation as Part of the Tile Design

You'll even find specific tile styles that feature intense shade variation on purpose.

The Solution? Gain a Sense of the True Look of the Product

That's why, we will strongly encourage you to purchase **a full box of tile or at least 4 pieces of natural stone**. That enables you to gain a sense of the true look of the product. This is virtually impossible to do with a single piece of tile or stone much less a 6" by 6" sample piece.

If you are looking for a uniform look with no variation, then you will want to consider only V1 products.

However, if variation appeals to you, then you should explore V2 through V4 products. Decide how much variation you prefer.

Let's look more closely at how that works.

Try a Dry Layout of Your Tile to Determine If You Like the Variation