

### DCOF: (DYNAMIC COEFFICIENT OF FRICTION)

**DCOF** measures a tile's slip resistance when it's subjected to dynamic forces, such as walking or running. It is a crucial factor in determining tile safety, especially in areas prone to moisture or wet conditions like bathrooms and kitchens.

The higher the DCOF value, the better a tile's slip resistance. A **DCOF** value of 0.42 or higher is generally considered safe for most applications.

### WATER ABSORPTION:

Water absorption, also known as porosity, indicates how much water a tile can absorb. It is expressed as a percentage of the tile's weight.

Tiles with lower water absorption are ideal for wet areas, as they are less likely to absorb moisture and are more resistant to staining and cracking.

### BREAKING STRENGTH:

Breaking strength measures a tile's resistance to breaking or fracturing under pressure. It is typically expressed in pounds per square inch (psi).

Tiles with higher breaking strength are more durable and suitable for high-traffic areas.

### CHEMICAL RESISTANCE:

Chemical resistance indicates how well a tile can withstand exposure to various chemicals, including household cleaning products and acids.

This property is essential in areas where tiles might come into contact with chemicals, such as kitchens.

### FREEZE/THAW RESISTANCE:

Freeze/thaw resistance is relevant for outdoor tiles or tiles exposed to extreme temperature fluctuations. It measures a tile's ability to endure cycles of freezing and thawing without cracking or deteriorating.

Tiles designed for outdoor use often have good freeze/thaw resistance.

### RECTIFIED VS PRESSED:

Rectified tiles have precise, sharp edges and uniform dimensions because they are mechanically cut after firing. This allows for very tight grout joints and a clean, modern appearance.

Pressed tiles are molded and then fired, and they may have slightly rounded edges and size variations.

### HARDNESS:

Hardness measures a tile's resistance to scratches and wear. The Mohs scale or the PEI rating (explained below) is often used to indicate tile hardness.

Harder tiles are more suitable for high-traffic areas and are less likely to show signs of wear and tear.

### VARIATION:

Variation refers to the degree of visual difference between individual tiles within the same batch or style. Tiles with high variation have noticeable differences in color, texture, or pattern between them. Some designs benefit from variation for a more natural or eclectic look, while others require minimal variation for a uniform appearance.

**V1 - Uniform Appearance:** represents tiles with a very consistent and uniform appearance. Minimal to no variation in color, texture, or pattern between tiles. Ideal for creating a clean and consistent look, often used in modern or minimalist designs.

**V2 - Slight Variation:** V2 tiles have slight variation in color, texture, or pattern, but it's relatively subtle. The differences are noticeable but not drastic. Suitable for achieving a balanced and harmonious appearance in various design styles.

**V3 - Moderate Variation:** exhibit moderate variation in color, texture, or pattern. Differences between tiles are more pronounced but still within a cohesive range. Often used for designs that want to introduce some visual interest without overwhelming the space.

**V4 - Substantial Variation:** have substantial and noticeable variation between tiles. These variations can be quite bold and distinctive. Typically chosen for designs that embrace a natural or rustic aesthetic.

**V5 - Dramatic Variation:** represents tiles with dramatic and striking variation. The differences between tiles are very prominent and create a bold visual impact. Used in designs where the variation itself becomes a focal point.

These V-levels are used to help consumers and designers choose tiles that align with their desired aesthetic and design goals. Keep in mind that the choice of V-level should match the overall style and theme of the space where the tiles will be installed.

### PEI RATING: (PORCELAIN ENAMEL INSTITUTE RATING)

The PEI rating indicates a tile's suitability for specific levels of foot traffic. It ranges from PEI 0 (no foot traffic) to PEI 5 (heavy commercial traffic).

It helps consumers choose tiles appropriate for their intended application, ensuring longevity and durability.

**PEI 0 - No Foot Traffic:** Tiles with a PEI rating of 0 are not suitable for foot traffic. They are typically used for decorative purposes on walls and are not designed for floors.

**PEI 1 - Very Light Traffic:** Tiles are designed for very light traffic areas such as residential bathrooms or areas where shoes are rarely worn. They are not suitable for areas with regular foot traffic.

**PEI 2 - Light Traffic:** Tiles with a PEI rating of 2 can handle light traffic areas in residential settings like bedrooms and bathrooms. They are not recommended for high-traffic areas or commercial use.

**PEI 3 - Moderate Traffic:** Tiles are suitable for moderate foot traffic in residential areas like kitchens, hallways, and living rooms. They can also be used in light commercial settings with limited foot traffic.

**PEI 4 - Heavy Traffic:** Tiles are designed to withstand heavy foot traffic and are suitable for high-traffic residential areas like entryways and commercial spaces such as restaurants or offices.

They are durable and can withstand significant wear and tear.

**PEI 5 - Extra Heavy Traffic:** Tiles are specifically engineered for extra heavy foot traffic areas, such as shopping malls, airports, or other commercial spaces with constant use.

They are highly durable and resistant to wear and abrasion.

Selecting the appropriate PEI rating for your tile depends on the level of foot traffic the area will experience. Using tiles with the correct PEI rating ensures longevity and minimizes the need for premature replacement due to wear and damage.

Understanding these terms can assist you in selecting the right tiles for your specific needs and ensuring they meet your aesthetic and functional requirements.