

Porcelain vs. Ceramic Tile

Ceramic Tile

Ceramic tile is a mixture of clays pressed together to form a shape. The tile is fired in a kiln at a temperature of 1100° Fahrenheit, turning it into what is known as “biscuit ware.” The surface of the tile is then either glazed or unglazed. If unglazed, it goes through an additional process. A special coating is applied to the tile body and then it is fired again which fuses the glaze to the body. This results in the following characteristics:

- UV (fade), slip, stain, heat and scratch resistant
- Cleans easily Because they tend to scratch on frequently used counter tops, glazed ceramic tiles are best suited for walls or decorative applications.

Porcelain Tile

Porcelain tile is a form of ceramic tile comprised of much finer clay, called kaolin, mixed with feldspar (petuntse) and quartz or flint. The material is dry pressed and fired at a higher temperature, up to 2800° Fahrenheit, than ceramic. The result is glassy cement with the following characteristics:

- Less than .5% absorption rate
- UV (fade), heat, wear, frost and scratch resistant
- Dense, through body color (color is the same through the entire tile body)
- Perfect for use in commercial areas where heavy traffic is a concern Unglazed or glazed porcelain tiles are recommended for outdoor use in Oklahoma. They are perfect for use in high traffic areas or where water can be an issue (such as a kitchen or bathroom).

Porcelain Enamel Institute (PEI) Ratings

The PEI rating should always be verified for the tile you choose prior to its application. These ratings are from 0 (wall tile only) to 5 (commercial, heavy traffic) and are applied to ceramic and porcelain tile. Decorative tiles, metal, glass and high gloss are typically rated lower and are manufactured with appearance as the foremost concern. The higher rated tiles (5) are designed more for function rather than to be aesthetically pleasing.

PEI Rating Chart

Proper Use

PEI Decorative wall tile only. These tiles should never be used on floors.

0

PEI Floor subject to light traffic and placed in areas protected from abrasive and scratching agents such as sand, gravel, etc. In general, these tiles may be used in bedrooms, bathrooms and private dwellings.

1

PEI Floors exposed to medium-light traffic and placed in areas protected from abrasive and scratching agents such as sand, gravel, etc. In general, these tiles may be used anywhere in private houses, except kitchens.

2

PEI Floors exposed to medium-heavy traffic and placed in areas protected from abrasive and scratching agents such as sand, gravel, etc. In general, these tiles may be used in all kind of rooms, hotel-rooms with relative facilities, hospital-rooms, etc.

3

PEI Floors exposed to medium-heavy traffic and placed in areas not protected from abrasive and scratching agents such as sand, gravel, etc therefore also rooms with direct access from outside. In general, these tiles may be used restaurants, hotels, shops, schools, offices, hospitals, etc with the only exception of the area beneath desks and the cash counters of public places.

4

PEI Floors exposed to medium-heavy traffic and placed in areas not protected from abrasive and scratching agents such as sand, gravel, etc, hence also rooms with direct access from the outside. In general, these tiles may be used in cafes, restaurants, hotels, shops, schools, offices, hospitals, etc.

5