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### PORCELAIN TILES BY IMPERVIA

A large number of our Architectural, Interior Designers and Contractors clients asked us to source porcelain and ceramic tiles.

The selection of tiles for walls and floors you can see on Impervia has been chosen by a selection of Interior Designers and Architects that we regularly work with.

Sometimes too much choice can be confusing so the range we have is the best range and selection that we stock currently. As time progresses, we will be extending our range.

For orders of 1,200 m2 or more we can make any tiles in the brochures you can see on the website.

We have two main sizes in stock 1200mm x 600mm and 300mm x 600mm. Other sizes available are 600mm x 600mm, 80mm x 160mm and 120mm x 240mm.

### What is the difference between Porcelain and Ceramic Tiles?

The **difference between porcelain and ceramic tiles** lies in their genetic makeup. **Ceramic tiles** are made using natural red, brown or white clay, baked at high temperatures to reduce water content, and then the patterned glaze is applied. **Porcelain tiles** are produced in largely the same way, except using only white clay and fired to 1,250 degrees centigrade.

When buying Porcelain tiles make sure that they use the white pure clay and the same temperatures. There are a lot of inferior porcelain tiles in the market.

### **Qualities of Porcelain Tiles**

Known as the most durable type of **tile** on the market, **porcelain** is harder, denser, tougher, and less porous than a **ceramic tile**. It also has a very low absorption rate, meaning it's virtually impervious to water damage, even after prolonged exposure.

For flooring, Vitrified tiles are the best choice since they are durable and can withstand heavy traffic. For **walls**, you can choose either **ceramic** or **porcelain tiles** as they are non-porous or do not absorb stains.



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We do not supply Ceramic tiles as they are generally made from inferior clays and are more absorbent than porcelain tiles absorbent as well.

Careful construction practices help enhance the strength of porcelain tiles, preventing cracking and other issues that are more common with ceramic tiles.

If you want to use tile in a commercial environment, or in a high traffic location, porcelain tiles are the best option.

This highly dense material is much more difficult to break, and it will withstand heavy use over time well. Quality porcelain tiles can even stand up to heavy furniture better than ceramic tile can.

## **Durability of Porcelain Tiles**

Porcelain tiles are one of the most durable options for flooring as well as walls.

## Porcelain Tile

Porcelain tiles are made from refined white clay and other natural elements. After being kiln-fired at 1,250 degrees centigrade the tiles are transformed to look like stone, wood, concrete, or other materials. The clay-based construction makes porcelain tile a subtype of ceramic tiles; however, porcelain tiles have harder construction and greater durability than non-porcelain ceramic tile varieties. Properties associated with **porcelain** include low permeability and elasticity; considerable strength, hardness, whiteness, translucency and resonance; and a high resistance to chemical attack and thermal shock.

### What does vitrified mean?

Ever wondered what vitrified means, what vitrified tiles are, what advantages they bring and how vitrified porcelain tiles differ from ceramic tiles?

When the mix for a porcelain tile (such as silica and sand) is fired, it vitrifies due to the high temperatures. Vitrification (from the Latin vitreum, "glass" via the French vitrifier) means to become glass-like or to be transformed into a non-crystalline amorphous solid. Molten silica fills the gaps and air bubbles that would otherwise be left exposed and fuses to make porcelain tiles tough, dense and impermeable to water. There are many other advantages to vitrified porcelain tiles explored below.



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# What's the difference between ceramic tiles and vitrified porcelain tiles?

Ceramic tiles are more like cement, in that they're porous and less suitable for wet or even moist environments and conditions. Porcelain tiles are fired at a much higher temperature than ceramic tiles, generally 1000-1400 degrees centigrade, and it is this process that causes the tile to become vitrified. <u>Porcelain tiles are fully vitrified with a water absorption of 0.5% or less.</u> This means they're denser and absorb less water so perfect for bathrooms, wet rooms, kitchens and outdoors.

**Vitrified porcelain** paving **is** a type of tile which **is** made from extremely pure kaolin clays and minerals such as quartz and feldspar, which **is** then fired at 1200 degrees Celsius, making it harder, extremely durable and giving it an extremely low water absorption rate of less than 0.5% - this makes **vitrified** paving ...

- They're individually pressed for greater strength and won't crack under pressure from heat.
- They're resistant to scratches and wear and tear, making them easy to maintain.
- They're resistant to stains and chemicals and so easy to clean.
- They're highly resistant to water porcelain tiles have ultra-low water absorption of below 0.5%.
- They lend themselves to the latest 3D printing technology, meaning Impervia Porcelain Tiles have an extensive range of colours and finishes.
- They can be used anywhere in the home and commercial settings, including high-traffic areas inside and outside.
- They can be used as wall tiles and floor tiles as well cladding and paving.
- They can have <u>underfloor heating</u> installed beneath and are excellent heat conductors so your feet can stay warm.
- Impervia's Porcelain tile collection comes in 9mm thicknesses for easy installation.
- Impervia porcelain tiles are extremely cost effective.

Because of their highly durable properties, porcelain tiles are simple to maintain. Simply wash them off regularly and clean up the grout in between and they will remain in good shape for years.