

Porcelain tile

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Hand-painted Chinese porcelain tiles on the floor of a Jewish synagogue in [Cochin, Kerala](#), India

Porcelain tiles are [ceramic](#) tiles with a water absorption rate of less than 0.5 percent that are used to cover floors and walls. They can either be unglazed or [glazed](#).

The hardness of the tile is rated from zero to five according to the Porcelain Enamel Institute scale. This rating, called the PEI rating determines the tiles suitability for various surfaces a rating of zero indicating a tile not suitable for use on walls.

Large scale production of porcelain tile is undertaken in many countries, including [China](#), [Italy](#), [Bulgaria](#), [Turkey](#) and [Spain](#).

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- [Ceramic tile cutter](#)
- [Diamond drilling porcelain](#) Page explains how to drill this very hard material

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- [Porcelain Enamel Institute](#)
- [Ceramica Global](#)
- [Iznik Tiles](#)



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Porcelain Tiles

Porcelain tile is known as china tile or vitrified stoneware. It contains raw materials such as kaolin, quartzes, feldspars and calcinated metal oxides (with no bonding agents, resins or additives) and are pressed to 450kg/cm² and fully sintered at a temperature of 1260 degrees C. The "veining", "graining" and "flaming" effects are not created by surface treatments or applications such as glazing, screen printing, double pressing or treatments using salts, acids or other substances but they can be visible throughout the body of the tile.

The lower the water absorption of a tile, the greater it's frost-resistance. Porcelain tiles generally have a very low water absorption rate of 0.05% and therefore, if rectified, can be laid with smaller joints due to their stability. Unglazed porcelain tiles have a greater slip resistance than glazed tiles and are particularly suited to public areas with direct access to the outdoors.

With regard to abrasion resistance, it is an important consideration when selection any floor tile. High traffic areas such as shopping malls, office lobbies, banking halls, restaurants or hotels require tiles with a very high resistance to abrasion. Resistance to abrasion is not that important when choosing tiles for a residential bedroom or bath.

Some people refer to unglazed porcelain tile as "through body" – i.e. the colour on the top goes all the way through. Even in extreme applications, these tiles tend not to show wear as the porcelain is quite durable (harder than granite).

Many glazed porcelains also have extremely good durability. Although the colour in the glaze layer may be different from the body, the surface is usually sufficiently resistant to abrasion to not show wear in typical applications.

There are both glazed and unglazed porcelain tiles – it is important to know the difference, as the glazed variety is usually a little easier to clean. Typically, glazed porcelain tiles have filled in microscopic holes that could be present in the unglazed tile on the other hand, unglazed porcelains have better slip resistance.

Porcelain tiles are harder to bond and harder to cut.

Porcelain tiles are generally known for their very low porosity value and therefore do not absorb, which means the traces of cement and grout will remain on the floor surface, and sometimes remain invisible to the naked eye. It is best to use an acid-based scale remover such as Grout Off and then wash down with Easy Clean.

Because porcelain tiles are acid resistant (except Hydrofluoric), paint stains, wine, fat, vinegar, nail polish etc. are easily removed with the appropriate diluents such as Turpentine, Thinners, Benzine, Acetone, Chloric Acid, Phosphoric Acid, Bleach, Sodium Hydroxide etc.

However, a less toxic way of cleaning them is high pressure hosing. Concentrating the pressure of water at close range to the tile. Incorrect cleaning liquids often render a porcelain tile hard to keep clean. It should be remembered that local products such as Handy Andy and Sunlight Liquid should be used for their intended use in the home and not for Porcelain tiles.

Due to lack of porosity, traffic loading etc. on porcelain tiles, you can fix porcelain tiles with a normal run of the mill adhesive like TAL Professional; Goldstar 6 or Goldstar 2 is to be used only, as it has mechanical fixing properties.

For further information or queries Mazista Tiles can be contacted at the numbers shown below.

Mazista Tiles

Tel: (011) 998 2600 / 012-361 2205/ 021-511 6640

Sales Cell: 083 643 8988 / 082 855 1962

Fax: (011) 462 8609

E-Mail: sales@mazista.co.za
Website: www.mazista.co.za

Benefits of Natural-Look Porcelain Tiles:

- Sourced from the most advanced factories in Europe.
- These tiles offer the durability of the latest technology coupled with look of the natural stone products.
- Can be used in combination with natural stone to achieve maximum effect.
- Can be used with confidence in areas with water or grease such as the kitchen.
- Resists scratches, scuffs and gauges which make them suitable for heavy-traffic areas.
- Water resistant and do not discolour or fade when exposed to sunlight, or other natural elements.