



Common Types of Tiles

Ceramic Tiles

Ceramic tiles are made from a mixture of different clays which can either be of reddish or light pale (white) colour. This clay is generally extruded or pressed into bodies which are fired through a kiln at over 1000 degrees celcius. These are generally finished with a durable glaze which can be coloured or patterned. They are a popular choice for wall and floor applications and are softer and easier to cut than other kinds. Ceramic tiles are only suitable for very light to moderate traffic areas on floor installations as they can be prone to wear.



Porcelain Tiles

Porcelain tiles are generally made by a heavy pressed method (approx 3000 kg psi) from refined kaolin clay. This is then fired at temperatures of around 1400 degrees celcius which vitrifies (turns glass like) the pressed clay forming a rigid body. This process creates a tile which carries the colour right through the body and once cooled, results in a final product which has much higher density and durability than its ceramic counterpart. The refinement and development of this process has seen the manufacture of amazing porcelain products available today which can now imitate the look of many different types of preferred building materials such as stone, wood and concrete. These products are excellent for light traffic to heavy traffic areas in both domestic and commercial situations.



Quarry + Terracotta Tiles

Terracotta tiles are a rustic looking, earthy product manufactured from basic clay mixtures fired at low temperatures to create a hard but porous flooring material. Terracotta is the forefather of the modern day ceramics / porcelains and up until the 14th century terracotta was the only flooring material made in this way until the Europeans introduced a higher temperature firing method. Generally used for its rustic or Mediterranean look and low slip feel, terracotta has been a timeless part of the industry and would be a great installation for any new project. Terracotta is a hard wearing surface which is available in many earthy tones and is suitable for all exterior areas and pool surrounds in both domestic and commercial situations.



Mosaics

Modern day mosaics are made from a variety of materials combined to create many different looks and styles. These are commonly used to accentuate an installation, whether in part or in a whole section of a project. The different amounts of styles, colours and finishes manufactured today is staggering with new materials being introduced into the mix all the time.



*** Information disclosed is a general guide only. For more detailed information regarding your specific situation please contact your closest Tile Power location.**



Polished Porcelain

Understanding Polished Porcelain

Polished porcelain tiles are a very desirable finish for any project requiring an upmarket 5 star look, while still being a very durable and hard wearing surface. For these very reasons, you will find these tiles in the best hotels, shopping centres and boutique establishments throughout the world.

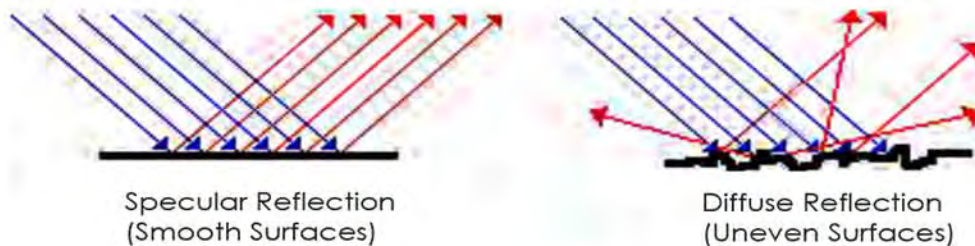
Polished porcelains are made from a mixture of refined kaolin and other clays, fired at very high temperatures to create the vitreous and dense tile we are all familiar with. This then undergoes a diamond grind polish to achieve the highly reflective mirror like finish.

Do I need to seal Polished Porcelain?

As a result of the polishing, thousands of micro pores are created in the tile surface that can allow contaminants to gather and cause light staining or marking. With this being the case, generally the answer is 'YES' it is advisable to seal your polished porcelain tiles - however there can be **exceptions to the rule** as some polished porcelains are already factory sealed. You should ask your Tile Power Professional for more guidance in this area when selecting your polished porcelain tiles. Also refer to the Tile Power 'Tile + Stone Sealing Guide' on www.tilepower.com

What is Optical Hazing?

Optical hazing is an appearance of a smokey or cloudy look in the surface of some polished porcelains. This 'hazing' will only be visible when light is reflected across the surface of the tile at a very specific angle eg: a room tiled with polished porcelain exhibiting 'optical hazing' will only do so at a certain time of the day, as the natural light (sunlight) reaches a certain angle across the face of the tile. Once the angle of the natural light (sunlight) changes - the optical hazing will again disappear. This is an inherent characteristic of polished porcelain tiles and is **not a product fault**. It is scientifically described as 'diffused reflection'.



Maintenance Techniques for a Mirror Finish

If you've ever lived on polished porcelain you will understand that it is like living on a mirror. As such, it requires a specific cleaning method to gain the best results :

Weekly Maintenance Clean

- 1) First sweep or vacuum the area to be cleaned. This will remove all loose dirt and debris.
- 2) Using an abrasive cream as a spot cleaner (**Spirit Porcelain Cream or Aqua Mix Nano Scrub**) remove any spot stains that are immediately apparent. After using the cream wipe away residue with a wet rag.
- 3) Using a mixture of methylated spirits + water in a trigger sprayer (70% Water) spray a light mist over the tiles starting in a corner of the room. Wipe over immediately with a flat mop (Vileda Mop). Continue this process until all tiles have been wiped over.

The above method works wonders for a mirror finish and should be part of a weekly routine for most households wanting to maintain a mirror finish.

6 Monthly - Deep Clean

- 1) First sweep or vacuum the area to be cleaned. This will remove all loose dirt and debris.
- 2) Using an abrasive cream as a spot cleaner (**Spirit Porcelain Cream or Aqua Mix Nano Scrub**) remove any spot stains that are immediately apparent.
- 3) Next mix up some alkaline detergent (**Spirit HDC or Aqua Mix Heavy Duty Tile and Grout Cleaner**) in a bucket and apply directly to the floor.
- 4) Using a nylon scouring floor pad (**Aqua Scrub or Doodlebug**) gently scrub in a circular overlapping motion. Be mindful of applying friction to the grout joints to ensure dirt is also lifted from these lower areas.
- 5) Mop up used detergent and give a secondary clean rinse. If possible use a wet pick up vacuum for best results.

*** Information disclosed is a general guide only. For more detailed information regarding your specific situation please contact your closest Tile Power location - www.tilepower.com**



Stain Removal Guide

Why do some cleaning products work and not others?

Understanding the origins of a stain or contaminant goes a long way to assisting with its removal. All contaminants that cause staining will fall into a specific group or category. Each of these categories will respond best to the appropriate category of cleaning product.

There is NO such thing as one cleaning product that will work on everything!!!!

See the chart below for stain categories and the appropriate cleaners :

.....

1) Heavy Oil Based Stains : Motor Oils / Grease / Heavy food oils (BBQs + oven build ups) :

Degreasers / Aqua Mix Heavy Duty Tile & Grout Cleaner / Spirit H.D.C

2) Light Oil Based Stains : General cooking oils (light build up) / general food stains

Aqua Mix Concentrated Tile & Stone Cleaner / Spirit Neutral Cleaner.

3) Pencil + Graphite / Wax build ups / Crayon marks / Soap Scum :

Aqua Mix Nano Scrub / Spirit Porcelain Crème

4) Concrete / Light Rust / Light Lime deposits / Light Mineral build ups / Grouting residue :

Aqua Mix Phosphoric Acid Substitute / Spirit Phosphoric Acid Cleaner

** Never use stronger acids unless under professional advice.*

5) Mould / Mildew / Leaf Marks + Tannin / Organic stains :

Spirit Bright As / Bleach / Chlorine based products

6) Inks (solvent based) / acrylic or enamel paints :

Solvents such as xylene, acetone or mineral turpentine will generally work.

7) Heavy Salts / Heavy Lime Deposits / Crystallised Efflorescence :

Spirit Efflorescence Off (Nitric Acid) or Aqua Mix Eff Ex (Non Acidic)

** Nitric Acid is a mineral based acid which is strong. Please exercise caution when using.*

.....

Please remember to exercise caution whenever using cleaning products and follow manufacturer's instructions! Below are some points to keep in mind :

Precautions :

- 1) Remember cleaners used incorrectly may cause inadvertent damage to surfaces and surrounds.
- 2) Always start with a weaker dilution when mixing cleaners, increasing strength as necessary.
- 3) Always rinse well with water after using any cleaning solution, especially with acids or solvents.
- 4) Always follow manufacturer's instructions on the bottle and strictly adhere to safety instructions.
- 5) Whenever dealing with stain removal on natural stone please seek professional advice prior, as incorrect practices may damage the stone surface.
- 6) Never mix cleaners unless with professional advice as dangerous fumes may result.

**** Information disclosed is a general guide only. For more detailed information regarding your specific situation or product please contact your closest Tile Power location.***



Tile Adhesives

Importance of the right tile adhesive

The market is flooded with a vast number of options when it comes to selecting the correct tile adhesive which can be confusing. First thing to understand is that the adhesive you select is the permanent component of your project that holds the tiles in place and not all tile adhesives are created equal. So it's important to select the best one for the job.

Economy vs Premium

You may be offered cheaper products during your selection process but keep in mind the coverage rates tend to vary from economical products to premium products. A better way to compare the overall costs of this component is to work out the average 'per sq metre' costs of the products you are considering.

You may find that the cost difference may only be \$1 - \$2 per sq metres and over an average 30 sq metre job it is not really a big difference.

Tile Power TP Premium Brand

Having a deep understanding and experience in this area Tile Power has teamed up with top adhesive manufacturers to formulate and create an entire range of premium quality adhesives exclusive to Tile Power stores. These products are manufactured to exceed industry standards and are fully warranted by the manufacturer.

Speak to your local **Tile Power professional** about our **TP range** of products to see what will best suit your project.

Points to keep mindful of when selecting

- 1) Premium adhesives are manufactured to meet very strict industry standards, ensuring the product will perform as advertised.
- 2) Manufacturer warranties should be a vital requirement of the selection process. If the manufacturer is willing to stand by his product you can be assured of a quality product.
- 3) The adhesive plays a vital role in securing the tiles in situ for the working life of the installation. Why would you trust this role to an inferior product. Many people pay top dollar for the latest and greatest tiles, then skimp on the adhesive used to stick them down. This can lead to tiles popping up over time.
- 4) When purchasing adhesives, the more information you can give your showroom attendant, the better they will be able to recommend the correct product.

Information you should provide on your project :

- A) Where is the area you will be using the adhesive?
- B) What type of tile or stone are you installing?
- C) What size are the tiles or stone being installed?
- D) What surface are you adhering to?
- E) What is the condition of the surface?

- 5) Remember that the use of the correct adhesive is important because the rectification costs can be very high!



*** Information disclosed is a general guide only. For more detailed information regarding your specific situation please contact your closest Tile Power location.**



Tile + Stone Sealing Guide

What are Sealers?

Sealers for tile and stone are typically liquid products applied to the surface of the substrate (tile or stone) to provide a level of stain protection and to promote the ease of cleaning to the surface. These products can either be water based or solvent based depending on the technology and intended purpose of the sealer.

What types are available?

There are two categories of sealer which are defined by how they react with the tile or stone surface as detailed in the below categories.

Penetrating Sealers : This category of sealer is designed to be 'invisible' or 'natural looking' by penetrating beyond the surface and bonding to the micro structure of the substrate. This process leaves a micro barrier of sealer 'resin' which acts as the oil or water repellency barrier. These sealers are the cutting edge of technology with sometimes very complex chemistry.

Topical Sealers : This category of sealer is designed to form a physical barrier or coating which adheres to the surface of the substrate. As a result this alters the colour and sheen of the surface, with generally a higher sheen and deeper colour. The use of this type of sealer can be limited due to fairly specific requirements and conditions for this sealer to perform properly. These product formulations are generally quite basic but effective and have been around for many decades.

Do my tiles require sealing?

Understanding the sealing requirements of a tile is generally linked to the porosity of the surface. The higher the porosity, the more it requires sealing to prevent permanent staining. Generally sealing can be beneficial even on lower porosity tiles to assist with maintenance and ease of cleaning on tile surfaces as well assist with the porosity of the grout joints. Below is a guide on tiles and their general sealing requirements.

Glazed Ceramics / Glazed Porcelains : This category generally does not require sealing for the tile itself as the glazing acts as a barrier to contaminants. These are generally the lowest porosity products on the market. The grout joints however will be porous and will require sealing unless epoxy grout has been installed.

Porcelains / Polished Porcelains : Porcelains tiles - although having very low porosity may require sealing if not already factory treated. These products generally have micro pores which may absorb stains if not maintained properly. A very small number of high quality and dense porcelains may not require sealing due to the superior quality of materials used in its production and the premium processing methods, but these products usually come at a premium price.

Quarry and Terracotta Tiles : These products have medium to high porosity and as a general rule will require a sealing treatment to prevent maintenance and staining issues down the track. Always ask your **Tile Power professional** for specific sealing advice when dealing with this category of products.

Natural Stone Products : The porosity of natural stone can vary greatly from low to high depending on the type and country of origin. As a rule all natural stones will benefit from sealing due to a natural capillary action which forms as the stone itself is formed in nature. Some have higher capillary action than others but all will have it to some degree.

How long will Sealer last?

Sealer technology and maintenance systems have come a long way in the last 10 years, with some manufacturers claiming an effective lifespan of 15 years or more if their maintenance systems are followed. As with all treatments regular assessment is the surest way to avoid failure.

Can I do the sealing myself?

Yes - sealer application is an easy process to undertake which involves 3 easy steps.

- 1) Floor preparation :** Vacuum then scrub your floor and spot clean any stains or marks. Then allow to dry completely.
- 2) Sealer Application :** Gently apply an even amount of sealer over the entire tile surface not forgetting the grout as well. Evenly wet the tile and grout with the sealer, being careful not to agitate the product too much.
- 3) Finishing :** Once the sealer has dried, you may begin to buff the surface to remove any residue that may be present. This can be easily done with a white towel or cloth.

*All sealing situations are different and may need slightly different techniques to get the job done right. Please contact your local **Tile Power professional** for detailed information on your specific situation.*

*** Information disclosed is a general guide only. For more detailed information regarding your specific situation please contact your closest Tile Power location. - www.tilepower.com**



Tile Cutting Guide

Introduction

Whenever tackling a tiling project yourself, one of the things you will need to do to complete the job is to make cuts. This is to allow for fixtures such as taps, power switches, towel rails etc. You will also need to cut tiles to finish off corners and around doorways. A job that is well cut will be the difference between a good job and a great job.

Cutting tiles is not a difficult job once you are armed with the right information and the right tools. All of which your local **Tile Power professional** can assist you with. If this is your first time, a little practice is recommended to ensure you get the techniques right and the cuts right. There are many different methods for cutting depending on what type of cut you wish to make as listed below. - **Remember to always use appropriate safety equipment when using tools.**

Straight Cuts

1) Mark out your desired cut line using a pencil. Make sure to cut slightly smaller than your required tile size to allow for a grout joint. Next is to cut the tile using **1 of 2 methods** :

- 1) A manual tile cutter which employs the 'Score n Snap' method.
- 2) An electric tile cutter or 'Wet Saw' which may require more experience.

Technique :

1) When using a manual tile cutter always ensure your scoring wheel is sharp to ensure the best possible cut. Score the tiles using the scoring wheel. Only do this once. Next apply even, but sudden pressure towards one edge of the tile on the breaker handle. This will give a clean fracture along the score line.



Marking your cuts

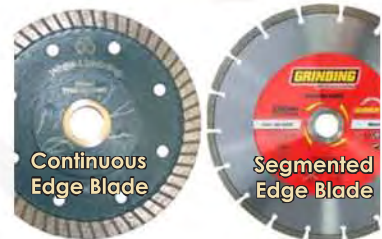


Wet Saw Cutting

Corner Cuts (square or rectangle)

1) As above - mark out your desired cut lines using a pencil. Make sure to cut slightly smaller than your required tile size to allow for a grout joint.

- 1) Use the tile cutter to score your cut lines. This will create a break point.
- 2) Using an angle grinder with a continuous diamond blade cut the score lines sides first, then the middle.



Continuous Edge Blade

Segmented Edge Blade

Cutting Tip :

1) When using a diamond cutting blade, always use a continuous diamond blade. A segmented blade may cause chipping of the tile edge during the cutting process.

Curved Cuts on an edge

1) As Above - Mark out your desired cut line using a pencil. Make the cut as close to your marked line as possible. To cut a curved line you should use a tile nipper - as shown in diagram - below right.

Technique :

1) When using a tile nippers, always nibble small amounts of tile off at a time. Trying to nip off a large section can be dangerous and may fracture the tile.



Using Tile Nippers

Cutting a hole

1) To cut a perfect hole in a tile you will need a specialised drill bit designed for this purpose. These drill bits are diamond coated for ease of cutting.

Technique :

1) Water will need to be applied to the bit as it is cutting to lubricate the process. Once marked with a pencil, you can either use a guide held in place with G clamps or free hand. This will depend on your skill level. Start the bit on an angle for the edge to bite then slowly level out as the cut gets deeper.

Diamond Coated Drill Bit



***Speak to your local Power professional for more detailed information.**

*** Information disclosed is a general guide only. For more detailed information regarding your specific situation please contact your closest Tile Power location. - www.tilepower.com**



DIY Tiling Handy Hints

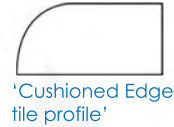
Tile Selection

Selecting the right tiles for your situation is important to achieve the most out of your new living space or area. Always discuss the project with your **Tile Power professional** prior to committing to materials for the job.

Discuss the details such as :

- 1) The area you wish to tile - ie. poolside, balcony, living room, bathroom, alfresco etc.
- 2) What type of general look or style you are trying to achieve?
- 3) The project cost you wish to adhere to.

* Generally a tile with a 'pressed' or 'cushioned' edge will allow more forgiveness for amateur tilers, assisting them with a more professional final result.



Surface Preparation

The final result of the finished job will depend a great deal on the surface preparation prior to tile installation. The areas to be tiled must be flat and free of humps or hollows. If this is not the case, there are floor levelling products available, but you must consult your **Tile Power professional** first.

All surfaces must be clean, dry and contamination free to allow the best adhesive bond.

If you are working on a bathroom wet area, please remember there needs to be a slight gradient towards a water waste or drain to allow water to escape. Surface preparation brochures are available from your local Tile Power store.

Tile Adhesive

When selecting a tile adhesive always remember that **you get what you pay for!** Cheaper adhesives on the market will not have the same characteristics as premium grade products. Consult your **Tile Power professional** on which adhesive type is best for your project and always follow manufacturer's instructions.

Tile Laying

Always work in a constant and methodical manner. And remember to work towards an exit or allow a path. You don't want to tile yourself into a corner. Accessories and specialty tools can be very cost effective and assist greatly with the installation procedure to achieve a great final result.

Project Completion

On finishing your project, thoroughly clean your tiles with a mild detergent as there will be residue and debris from the installation process. If this step is left for too long, it will become more difficult as residues will begin to harden. If this happens, you will then require the use of chemical cleaners to achieve a clean surface.

Final Thoughts

Tile installation gone wrong can become expensive and time consuming to rectify. Tile Power recommends that adequate research or consultation be carried out prior to undertaking any DIY tiling project.

For all the information and advice you may require please consult your local Tile Power professional. They will be happy to guide you through the process as well as recommend the right materials for the job because at Tile Power - **'We know our Trade.'**

*** Information disclosed is a general guide only. For more detailed information regarding your specific situation please contact your closest Tile Power location.**



Understanding Tile Terms

What do I need to know when buying tiles?

When it comes to buying tiles, if you aren't familiar with the process, you can get caught out if there are certain industry terms and practices you are not aware of.

Industry terms like 'shade, spoilage or wastage, calibration' are things you may hear when making selections or placing orders, but what do these terms actually mean and how will they have a bearing on your project?

Usually when dealing with any reputable dealer (like your local Tile Power professional) this information will be explained thoroughly, but it is always better to be armed with a little knowledge before you start than go in blind.

Below are some of the regularly used industry terms - what they mean and what you need to know.

Industry Term - 'Shades'

Tiles are manufactured in a large oven like device called a kiln and like all kiln fired products, there will be slight variations from batch to batch. Shading is a term used to describe a specific tonal difference from batch to batch. This is important to understand as the same product / same colour but different shade can have disastrous results to a projects overall look.

What you need to know :

- 1) Always try to buy all your tiles at the one time to ensure consistent shade.
- 2) Always keep a couple of boxes aside for future use such as running repairs to the installation. Once some time has passed, there is little hope of getting the exact same shade of tile again.



Industry Term - 'Wastage or Spoilage'

Wastage or spoilage refers to the small percentage of tiles for any given project that are either broken or damaged during on site handling or used for cuts. This is unavoidable and a necessary factor when estimating your project size.

What you need to know :

- 1) Generally allow an extra 10% for wastage. This is generally enough for most projects and any left over boxes can be kept for future running repairs.



Industry Term - 'Calibration'

Calibration refers to the standardised thickness of any given batch of tiles produced. For good quality tiles, stone or mosaics the calibration will be very much uniform from piece to piece.

What you need to know :

- 1) Calibration issues can cause installation problems depending how much variance there is within the batch, Tilers must periodically check for this during installation to ensure there are no calibration problems.



Industry Term - 'Sizing Variation'

When speaking of sizing variation in relation to tiles, this refers to the variance in size from the standardised size of a particular kind, ie: a manufacturer may produce a run of tiles to be sold as 300 x 600, but after all the processes are complete there may be a variation of up to 3mm in the finished size (297 x 597). This is an acceptable standard provided all the tiles within a batch carry the same variation.

What you need to know :

- 1) Sizing variation will not cause issues with the overall finish of the installation.

*** Information disclosed is a general guide only. For more detailed information regarding your specific situation please contact your closest Tile Power location.**