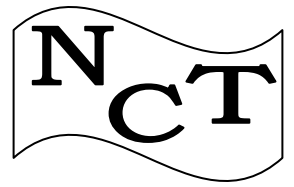




New Century Tiling  
ABN 49 107 075 052



---

## CLEANING AND MAINTENANCE RECOMMENDATIONS

## NEW CENTURY TILING PTY LTD

### CLEANING RECOMMENDATIONS

#### DOMESTIC TILING

##### **GLAZED TILES**

When cleaning glazed tiles, a damp cloth is usually all it takes to bring back the gloss of the tiles. A routine clean with window cleaner may remove moderate stains and a stronger solution is necessary for heavily soiled surfaces. A milk solution of hot water and all-purpose liquid cleaner or a soapless detergent is excellent for cleaning walls, floors and counter tops.

When cleaning, it is important to remember:

- Do not use powder based cleaners that may scratch the surface
- Do not use soap to clean as it leaves a film which can dull the gloss of glazed tiles and also encourages the growth of bacteria and mould in damp areas.
- All cleaning solutions must be thoroughly removed from the tiles by rinsing with clean water.
- To clean grouting – a plastic bristle brush is recommended. Steel wool pads should not be used as they leave steel particles, which may later rust leaving brown stains.

##### **SHOWER AREAS**

Due to the constant use of shower areas, tiled surfaces need a different cleaning procedure to remove the hard water deposits, soap scum and body oils that build up.

To avoid extra heavy cleaning, weekly cleaning is advised to maintain the level of hygiene and to remove dirt before it builds up into hard deposits. Routine build up can be removed with most all-purpose cleaners, while hard water deposits can be eliminated by a solution of white vinegar and water. A plastic scouring pad is most useful for this kind of cleaning.

With the damp nature of shower recesses, bacteria and mould can develop when there is little ventilation. This can be removed by spraying or wiping with a chlorine bleach such as White King. This should be allowed to stand for 5 minutes and later rinsed with clean water. Caution should be taken with using bleach and it should never be mixed with ammonia.

##### **UNGLAZED TILES**

Cleaning recommendations for unglazed tiles are the same as those for glazed tiles. Powder cleaners should not be used, as undissolved particles might remain and develop a haze, distracting from the naturalness and beauty of unglazed or terracotta tiles.

## COMMERCIAL TILE AREAS

**Small public areas** such as lobbies and corridors can be easily cleaned by a daily mopping with warm water and all-purpose liquid cleaner. Either neutral or mildly alkaline, i.e. pH 7-9.

**Large public areas** such as shopping centres, malls and auditoriums may be cleaned with self propelled scrubbing machines using detergents as follows:

- For daily cleaning, a detergent with a pH in the range of 7-9 should be used.
- For heavy cleaning, an organic acid cleaner with a pH about 2, but containing no mineral acids, or an alkaline cleaner with a pH of up to 11 may be used, provided its sodium or potassium hydroxide content is less than 0.01% when diluted. Both should be diluted with water as recommended by the chemical manufacturer. The cleaner should be liberally applied and quickly removed from the floor by squeegee and suction, as recommended by the chemical manufacturer.
- For infrequent heavy duty scrubbing of small areas, higher alkaline cleaners up to pH 13.5 may be used provided the sodium or potassium hydroxide contents is less than 2% in the concentrate, and is diluted to at least 100 to 1 with water, but they should be removed from the surface with copious quantities of water. **They should not be used in routine daily maintenance, as residual cleaner will attack the tile surface and cause the grout to blacken. Before using these products (1, 2 & 3) get the professional written advice from the chemical manufacturer as to the suitability, application and frequency of use of their product on fully vitrified porcelain tiles.**

## **SHOWERS AND TOILETS**

Where hygiene is of paramount importance, such as in commercial showers and toilets, a commercial cleaner is the best application where cleaning should be performed daily. Organic acid cleaners that do not contain mineral acids may be used here as recommended by the chemical manufacturer.

## **KITCHENS**

For commercial kitchen areas where the grease build up is constant and oil spills occur, organic acid cleaners, pH about 2, dilution rates should be used as specified by the chemical manufacturer. This method of cleaning is appropriate also for dining areas in fast food cafeterias and for food and beverage spills.

## **EXTERIOR AREAS**

Exterior tiles surfaces can be washed with a soapless detergent in the pH range 7-11, and rinsed with fresh water. Where harder grime occurs, a soft bristle brush can remove build up.

## **DECKS**

An occasional wash down with a hose spray eliminates normal build up on decks. If there are more stubborn, then cleaners for kitchen and exterior areas may be used as recommended by chemical manufacturers.

## **SWIMMING POOLS**

Scum that develops along the water line of the swimming pool can be removed with an all purpose cleaner and a plastic scouring pad.

## **HYGIENE**

Due to the nature of ceramic tiles, their surfaces, glazed or unglazed, are perfectly hygienic. They do not retain odours, or absorb liquid, fumes or smoke. In this way, they are excellent for domestic applications where hygiene is essential and where dirt and hard wear are inevitable and thus, are an easy floor surface to clean. In commercial applications, this hygiene is imperative for bathrooms, kitchens, hospitals and school toilet areas and their ease of maintenance, essential for lobbies, shopping malls, eating areas, building and industrial areas.

**All of the aforementioned sections relating to commercial areas should be read in conjunction with General Remarks 1 – 14 on pages 6 – 8.**

## **INITIAL MAINTENANCE AND CLEANING**

Recommendations for initial cleaning and maintenance of fully vitrified porcelain tiles. Adherence to the following cleaning procedure will enable you to take maximum advantage of the properties of your tiles.

The materials and methods recommended are the outcome of many years experience and, when used in association with a regular cleaning routine, will enable the floor to be maintained to a high standard of cleanliness, slip resistance, hygiene and appearance.

The speed and efficiency of cleaning depend among other things on the ease with which the cleaning agents can reach the stains. For this reason, tiles having rough or uneven surfaces are at a disadvantage.

The following cleaning products/ procedures are suggested:

### **CLEANING LIQUIDS**

#### **1. Phosphoric Acid Cleaner**

This is a phosphoric based acid cleaner containing detergents properties for the removal of excess grouting and cement smears, usually used diluted with water in a ratio of 1 part acid to 10 parts water for final clean up of excess grout from tiles.

NOTE: Acid cleaner must be handled with care and protective clothing and goggles must be worn. Read safety instructions before opening and applying.

#### **2. Sodium Bicarbonate**

A 5-10% solution may be used to neutralise the acids used in grout removal. After reacting, the materials should be washed off with copious amounts of water.

#### **3. Cleaning Detergents**

These vary depending upon the application, as follows:

##### **3.1 Post Phosphoric Acid Cleaner**

To clean up after phosphoric acid, the most suitable is a neutral to slightly alkaline cleanser – pH 7 to 9 – designed to neutralise the phosphoric acid and maintain tiles in a clean condition.

3.2 For daily cleaning, a detergent with a pH in the range of 7-9 should be used.

3.3 For heavy cleaning, an organic acid cleaner with a pH of 2, but no mineral acid content or an alkaline cleaner with a pH of up to 11 may be used provided its sodium or potassium hydroxide content is no more than 0.01% in the liquid used.

- 3.4 For infrequent heavy duty scrubbing of small areas, higher in alkaline cleaners up to pH 13.5 may be used, provided the sodium or potassium hydroxide contents is less than 2%, but they should be removed from the surface of the tile with copious quantities of water.

Before using these cleaners (1, 2 & 3) get written advice from the chemical manufacturer as to its suitability, application and frequency of use for fully vitrified porcelain tiles.

#### **4. Water**

Clean water is the big secret in cleaning. It should be used to flush all detergents and acids used in cleaning.

### **CLEANING EQUIPMENT**

#### **1. Manual Cleaning**

Mop and bucket  
Nylon or natural bristle scrubber

#### **2. Mechanical Cleaning**

Large areas of plain or textured surface tiles are most readily cleaned with rotary cylindrical or reversing mechanical scrubbing machines. The scrubbing machine speed ideally should be 150 to 250 rpm. Brushes used should be selected so that they effectively clean the tiles but do not damage the tile surface in any way. Refer to equipment manufacturers for the correct selection of equipment and operation. Scrubbing machines should be provided with a suction drying facility.

#### **3. High Velocity Water Jets**

High velocity water jets are sometimes available for general use and/or for removal of stubborn dirt. These will not damage the tiles, but may erode the grout in the joints if used regularly. Check with the equipment manufacturer before using.

### **INITIAL CLEANING**

Once the tiles have been laid and grouted, they must be thoroughly cleaned of all residual cement, grout smears, silicone leaching and soils after a few days, when both flooring itself and the joints have completed their aging process.

1. Operate in 10m<sup>2</sup> sections to ensure greater control over the finished result.
2. Sweep floor to remove all loose debris.
3. Saturate the grout joints with water.
4. Dilute phosphoric acid cleaner with warm to hot water according to chemical manufacturer's instructions, and apply solution to the floor to be cleaned. Allow solution to work on the tiles for 5-6 minutes to break down the excess grout, dirt and grease on the tile surface.

**DO NOT ALLOW THE SOLUTION TO DRY – ADD MORE WATER IF NECESSARY**

5. Scrub tiles with a brush or mechanical scrubbing machine (suction facility switched off) to lift the dirt.
6. Remove dirt with wet vacuum cleaner or scrubbing machine (suction facility switched on).
7. Repass again with clean solution if necessary.
8. Finally, before allowing area to dry, rinse thoroughly several times, with cold, clean water, agitating with the scrubbing brush or with the scrubbing machine (suction facility switched off) to ensure complete removal before using wet-vac to remove excess water from the surface.

**NOTE: IF THE SURFACE IS INADEQUATELY RINSED OR DRIED UP BEFORE RINSING, AN OFF-WHITE DEPOSIT OR PRECIPITATE MAY BE LEFT ON THE TILE AND IT WILL BECOME MORE DIFFICULT TO REMOVE THAN THE ORIGINAL DEPOSIT.**

9. Dilute cleaning detergent according to chemical manufacturer instruction for high concentration in warm water, and apply using a mechanical scrubbing machine (suction facility switched off), or manually with a heavy scrubbing brush. The water/detergent mixture must be allowed to remain on the floor for sufficient time (5-15 minutes) to allow it to penetrate and emulsify the dirt. It is important that the cleaning detergent is completely removed by a final rinsing with clean water. Remove excess water from the surface with a wet-vac or mechanical scrubbing machine (drying facility switched on).

**IT IS THE RINSING PROCESS THAT REMOVES THE DIRT.**

10. Repeat procedure 9 weekly, or as required, to prevent soil build up on the ceramic tiles.

### **ROUTINE CLEANING**

1. Dilute cleaning detergent according to chemical manufacturer's instructions for lower concentration in warm water and apply using a mechanical scrubbing machine or manually with a clean mop and bucket. It is important that the cleaning detergent is completely removed either by a final rinsing with clean water, or by the squeegee vacuum action of a mechanical cleaner.
2. Spillage of oil, fat or material likely to stain or cause a slipping hazard, should be removed immediately by using detergent and hot water, followed by rinsing with clean water.

### **GENERAL REMARKS**

1. Whatever method is chosen, remember the three golden rules of cleaning:  
RULE A: Try a small inconspicuous area first.  
RULE B: Rinse off well with clean water afterwards.  
RULE C: Avoid high concentration of cleaners for prolonged periods of time.
2. The sooner the cleaning is carried out, the easier the stain can be removed.
3. Protect the floor if decorating, construction or overhead work is taking place.
4. Locations which are permanently wet (e.g. swimming pools, showers, etc) may attract build up of body fat, oils, soap residue, hard water deposits and in humid conditions, organic growth (algae). To remove this, a more acidic cleaning agent used regularly is preferable, because alkaline cleaners can react with body fats to make surfaces slippery. A plastic scouring pad is the most useful device for this type of cleaning.

5. Powder cleansers should not be used, as undissolved particles may remain and develop a haze distracting from the naturalness and beauty of the tiles.
6. Steel wool pads should not be used as they may leave steel particles which can rust and leave brown stains.
7. One source of problems with unglazed tiles is regular cleaning with alkaline detergent of greater than pH 9 with high concentrate of sodium or potassium hydroxide. These should not be used unless the residue can be neutralized and thoroughly rinsed away with clean water, otherwise, reaction can cause a glossy and potentially slippery surface.
8. The pH of the material is the measure of acidity or alkalinity. It is a logarithmic scale and pH 7 is the neutral point. Below pH7, the material is progressively more acidic and above pH 7, more alkaline (i.e. pH 8 is 10 times more alkaline than pH 7).
9. The regular use of detergents and other cleaning agents which are excessively acidic or alkaline with excess sodium or potassium hydroxide can cause irreversible damage to the tile surface. Acidity being less damaged than alkalinity. All products used must be recommended by the chemical manufacturer.
10. Many degreasing agents which contain wax, sodium, silicate or other additives which leave a sticky deposit on the floor and thus retain dirt on the surface, must also be avoided.
11. Please always refer to the chemical manufacturer's instructions. If you need more information about the use of cleaning products and the manufacturing agents in your state, please contact the Technical Services Department of the chemical manufacturer.
12. Detergents build up with prolonged use, and if not properly rinsed with clean water, this build up of detergents will hold in dirt, make the tile look dirty and make it slippery.
13. Signage must be adequately displayed when cleaning tiles to warn the public or other users of the area that the tiles are wet and care should be taken.
14. Before using these products, get professional written advice from the chemical manufacturer as to the suitability, application and frequency of use of their product on fully vitrified porcelain tile.
15. Any product will become slippery when wet. We recommend that care be taken to keep the surface dry.

The 'Recommendations for Cleaning & Maintenance' of tiles was derived from various sources and was believed to be correct when published. The information is advisory only, and is provided in good faith and without prejudice, and not claimed to be an exhaustive treatment of the relevant subject.

Further professional advice might need to be obtained before taking any action based upon the information provided.

No responsibility will be accepted for the performance of cleaning products and any consequential damages arising from the use of these products, since the quality control and application is outside the control of New Century Tiling.

**Note:** Detergents used for cleaning of floors should be specifically designed for that purpose and the manufacturers' recommendations followed. The use of inappropriate detergents may create residue problems and potentially slippery floors.