



## **Semi And Fully Vitrified Tiles**

### **Floor care protection and maintenance procedures**

#### **Description / definition**

Vitreous are hard bake tiles where the colour and texture goes completely through. There is no surface glazing or designs on these tiles, as they are made for extreme wear and chemical resistance. They are usually only used in commercial or extreme wear applications. Water permeation is usually less than 0.5%, which makes vitrified tiles the most stain and spill resistant as well as being suitable for both heavy traffic, internal and external building use. Both tiles can be plain or contain flecks of hard stone or fly ash embedded into the coloured clay matrix.

#### **Cleaning characteristics**

The cleanability or the ability to remove soilage depends upon two factors. The surface texture, and porosity. Some designs have an embossed or contoured surface, others usually semi vitrified tiles are more porous and still retain microscopic particles of soil that slowly discolours. This soilage can become extremely difficult to remove. Because of these variations, three regimes have been described to enable you to clean or clean and protect the floor under your control.

- **Untreated Vitrified Tiles**

We will be describing a maintenance plan that removes adhering soil from the tiles, as layed. We will also describe a proven system of removing deep seated soil and stains as a restoration clean.

- **Impregnating Vitrified Tiles**

We describe a process that seals porous and semi vitrified tiles by the impregnation of a soil and stain repellent below the surface. This invisible process is ideal for tiles that may have been damages by previous acid washing or just have a high porosity.

- **Sealing Vitrified Tiles**

A process for applying and maintaining vitrified tiles with a surface coating that repels soil, provides a more decorative gloss finish that is acting as slip resistant sacrificial wear layer.

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*High Technology Chemistry and Cleaning Systems for the Carpet Maintenance and Sanitation Industries.*

**Wedina Holdings Pty Ltd A.B.N 65 002 373 319**  
**Head Office 104 Derby Street Silverwater 2128 Ph: (02) 9748 0321 Fax: (02) 96471020**  
**P.O Box 142 Artarmon NSW 1570**  
**E-mail: sales@research-products.com.au Web: www.research-products.com.au**

## **1. Cleaning and Maintaining Untreated Vitrified tiles**

### **Surface restoration – How to bring your floor back to life**

Restoration is only required if the surface is heavily soiled with a hard, if not impossible to remove soil, using conventional cleaning products. The soil may include greasy food deposits or even mineral oils. It will not remove deep seated rust stains, only surface rust. The method is not destructive (non-acid) using a powerful alkaline cleaner, therefore requires safety gloves and rubber boots to be worn.

### **Auto scrubbing – Restoration**

Apply a cold or hot solution of PUNCH Heavy Duty tile Cleaner at 1 to 10 parts water via auto scrubber or by flood mopping. Via the Autoscrubber apply as you scrub, leaving the solution valve fully open with squeegee up.

Allow this solution to activate and only cover enough area so that the solution does not dry out, the longer you leave this solution, the better it will clean.

The scrubbing should take place slowly whilst picking up the slurry. White soft nylon or medium weight Tynex fibre bristles are best. Also softer green or blue pads. Both these work better at getting into the pores of the tile where the dirt is located.

It is important to clean water scrub and rinse to remove all residues and alkalinity.

### **Mop scrub method – Restoration**

Apply a 1 to 10 restoration solution by flood mopping with a fully loaded poly cotton mop. Allow to activate for as long as possible without drying. Scrub the floor with a polisher fitted with blue or green pads or a soft nylon (white) brush. Softer pads and brushes lift out soil better and harder.

Wet pick up with a wet dry vacuum or pick up slurry with a mop. Rinse the floor with clean hot water to remove residues.

**IMPORTANT – floors can become slippery when using PUNCH. Put down wet floor signs and wear non-slip boots. Keep PUNCH solutions away from aluminium or brass.**

### **Maintenance Cleaning**

For maximum performance and freedom from potentially slippery residues, use the lowest level of cleaning product that does the job.

**Auto Scrubbing** – Use ORANGE SQUIRT at 1 to 20 parts water (400ml per 50 Ltr) is a good starting point dilution. This product has excellent soil removing power at low cost dilution. Research Products NEUTRACLEAN can also provide a very low slip surface when used at 1 to 100 parts water. REBOUND as an autoscrub cleaner once per week to increase slip resistance (1 to 80 parts water).

**Dry Burnishing** – Some vitrified tiles leave streaks and show surface dullness after cleaning and requires U.H.S dry burnishing with a clean Jackaroo or Buckaroo pad, this is particularly important on the day the REBOUND restorer is used through the auto scrubber.

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## **2. Impregnating Vitrified Tiles - Barrier II Terracotta**

To assist in keeping porous Vitrified tiles clean, the application of BARRIER II TERRACOTTA is recommended.

Developed and manufactured in Italy this product can reduce cleaning labour because it stops the penetration of soils into surface pores.

As it is not a surface treatment it is invisible, does not alter the appearance or slip resistance of the original tiles. BARRIER II TERRACOTTA is suitable for both interior and exterior tile surfaces.

### **Application of BARRIER II TERRACOTTA**

This is best applied by lambs wool applicator. Only one coat is required and this should be applied thinly. It is only able to be used on semi vitrified tiles or surfaces where the porosity allows it to penetrate. For greater soil resistance the floor should be U.H.S burnished after the surface is cured (24 hours after application).

### **Maintenance Cleaning**

**Interior** - Follow the directions in the previous section using ORANGE SQUIRT or NEUTRACLEAN as the recommended detergent.

**Exterior** - Because oily soils can't penetrate and normal grime finds it hard to stick to this surface, hosing will remove most of the soil with an occasional scrub with ORANGE SQUIRT( 1 to 100 parts water) cleaner followed by a hose rinse or wet pick up will give an excellent result.

## **3. Sealing Vitrified Tiles**

The surface sealing of vitrified and semi vitrified tiles is a process that has become popular in the U.S.A, where it was found that surfaces could be cleaned more easily with an increase in slip resistance over the original surface with a deeper and more appealing gloss. The key to successfully sealing these surfaces is to achieve high adhesion. Most floor finishes today don't have enough adhesive power and scrape off rapidly and don't provide long term performance. Research Products have developed a sealer that provides high levels of adhesion, BLOCKADE.

The application of a topcoat over the base sealer increases gloss and allows the surface to be burnished and repaired more easily.

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## **The Process directions**

### **First pre clean or restore**

If the surface is heavily soiled restore the surface as described in section 1 using PUNCH and thoroughly rinse the surface to remove alkaline residues.

### **Application of Sealer**

For the best results apply BLOCKADE with a medium loaded polyester cotton mop and apply as to allow penetration of this first coat into the grouting. BLOCKADE should be left to dry for at least 30min prior to the application of the second coat. The second coat should be slightly thinner than the first coat. If your first coat is not completely dry your second coat can "pull up" your first coat and ruin your application.

### **Top Coating with Floor Polish**

Using the same prewashed polycotton mop apply the first coat of GLAZER or MARBLETECH as the maintainable layer. Apply thin coats in a figure of eight pattern so that you keep a wet edge and apply the second coat (after 20min) across the direction of the previous coat.

### **Maintenance**

Auto scrub or damp mop with NEUTRACLEAN or ORANGE SQUIRT to remove surface soiling. If mopping, use a double bucket system. This will keep the surface cleaner, longer.

Dilutions – Autoscrubber 1 part to 100 parts water for shopping malls. (500ml to 50ltr)  
1 to 80 for supermarket floors. (600ml to 50ltr)

Dilutions – Hand Mopping 1 to 80 parts water for shopping malls (120mls to 10ltr)  
1 to 60 parts water for supermarket floors (180mls to 10ltr)

### **Burnishing**

To build the best looking floor using U.H.S equipment, unless the floor has tile lippage that shows up as a dark or dirty edge on the tile. If lippage is prevalent then use 400 RPM equipment and a clean bassine brush rather than a floor pad.

If using Brushes – Bassine in both U.H.S and 400 RPM equipment.

If using Pads - U.H.S use beige, champagne or better. Scuff removal use Jackaroo light.

Don't use hard pads.

On regular speed machines – use tan pads where scuffing is light, red pads only when required to remove scuffs and scratches.

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