

Technical Manual

Cleaning and Maintenance of Ceramic Tiles

SAVON
LIQUIDE
LE MARSEILLE
THE NOIR
LIQUID MARSEILLE
SOAP
BLACK TEA

Portobello Grupo

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Cleaning and Maintenance

The topics covered in this chapter should be conveyed in some way to the end user. We recommend including the texts in the user manual and in the landlord's manual. As a rule, the correct maintenance carried out by a qualified professional is the user's responsibility, as long as they have been informed of their duties.

Missing or failing maintenance shortens the tiles' service life so that it might become less than the minimum designed service life.

1. Regular Daily Cleaning

The product indicated to carry out the daily cleaning of ceramic tiles is neutral detergent.

All products must be diluted in water, used in their neutral versions and applied with a damp cloth in this solution. Follow the instructions for use for each cleaning product.

After these procedures, use only clean water and dry the floor. If there is still dirt on the product, let the detergent and water solution sit on the floor for a few minutes and then scrub with a brush or broom with soft bristles.

Do not use steel wool or similar products.

Rinse well with clean water only and dry with a clean cloth. The use of warm or hot water facilitates the cleaning of your porcelain tiles.

Products with a friction coefficient greater than or equal to 0.6 (EXT, Super EXT, and Ramp) are more difficult to clean. It is important to note that it is not possible to clean these products with a damp cloth. They must be cleaned with a broom, mild detergent, and water.

2. Table for Cleaning Specific Dirt

To choose the best cleaning product for specific dirt, use Table 01 below as a reference and follow the manufacturers' instructions regarding dilution and rinsing:

TYPE OF DIRT	TYPE OF CLEANING PRODUCT	COMMERCIAL PRODUCTS
Grease or oil	Slightly abrasive powder detergent and alkaline detergent	Creamy Soap (CIF or Radium) and Veja Cloro Ativo
Paint	Organic solvent or acid detergent	Paint Organic solvent or acid detergent Thinner, Turpentine (except for special parts and baseboards)
Rust	Specific product to remove rust from ceramic tiles	Manchester's Rust Remover or PisoClean's RustOut
Lime and cement residue	Acid detergent	Clean Max Multipiso or Manchester's Hidrorepel Removedor Remofácil Ácido

TYPE OF DIRT	TYPE OF CLEANING PRODUCT	COMMERCIAL PRODUCTS
Beer, wine, coffee, and soda	Solution in sodium hypochlorite or alkaline detergent	Bleach or Veja Cloro Ativo
Tire rubber	Slightly abrasive powder detergent	Creamy Soap (CIF or Radium) or powdered soap
Fruit juices	Solution in sodium hypochlorite and alkaline detergent	Bleach or Veja Cloro Ativo
Marker pen	Organic solvent	92.8% Alcohol, Thinner, or Acetone
Pencil	Slightly abrasive powder detergent	Creamy Soap (CIF or Radium) or rubber
Crayon	Slightly abrasive powder detergent	Creamy Soap (CIF or Radium)

Table 01 – Dirt and cleaning products that can be used.

For specific dirt not included in this list, contact Portobello Customer Service on 0800 648 2002.



ATTENTION

The older the stain, the more difficult it will be to remove, so the cleaning agent exposure time will be longer.

All staining agents must be diluted with water directly over the stain.

The Clean Max Multipiso product can be used both on products with enamel on the surface and on polished porcelain tiles (glossy).

The use of water jet machines (high pressure washers) does not remove dirt from floors, walls, and facades without the combined use of cleaning products. Sometimes it is also necessary to use brooms to remove them completely.

3. Post-construction cleaning

Post-construction cleaning must be carried out with extreme care, as there may be abrasive materials adhered to the surface.

1. Remove loose residues with a broom or vacuum cleaner;
2. Clean the surface with a sponge or cotton cloth dampened with clean water;

Do not use steel bristles or any other metal, such as steel sponges, for example. They can scratch, damage and remove the shine from the porcelain tile or enamel coating.

3. Use, if necessary, neutral detergents;
4. Finish cleaning with plenty of water and a clean, dry cloth.

If the complete removal of residues with water and detergent is not successful, it is suggested to:

1. Spread creamy soap diluted in water over the surface with the aid of a broom with soft bristles.
2. Let the mixture sit on the tiles for 15 minutes;
3. Scrub the surface with a broom or soft-bristled brush;
4. Rinse the floor in order to completely remove the solution and residues. It is essential to completely remove the mixture (solution + dirt) within the stipulated time, as if it dries on the tiles, it can form a film that is difficult to remove;
5. Finish cleaning with a clean, dry cloth.

If the complete removal of residues with water and creamy soapy is not successful, it is suggested to:

1. Spread on the surface Clean Max Multipisos® Portokoll or Manchester's Hidrorepel Removedor Remofácil Ácido, diluted in the proportion indicated on the product packaging. Do not apply the cleaner directly on the floor to add water later. Always dilute in a bucket and then apply to the tiles.
2. Let the mixture sit on the tiles for 15 minutes;
3. Scrub the surface with a broom or soft-bristled brush;
4. Rinse the floor in order to completely remove the solution and residues. It is essential to completely remove the mixture (solution + dirt) within the stipulated time, as if it dries on the tiles, it can form a film that is difficult to remove;
5. Finish cleaning with a clean, dry cloth.

4. Not recommended products

The use of inappropriate cleaning products will damage your porcelain tiles. Polished porcelain tiles are more delicate and require more attention.



Do not use products that contain hydrofluoric and muriatic acid, fluorine and its derivatives. These components are found in Semorin, Aluminum Cleaner, Brillhol, Stone Cleaner, Stone Shampoo, Window Cleaners, and others.

Products that have hydroxides (potassium, sodium, etc.) in high concentration can cause changes in the surface shine of polished porcelain tiles if exposed for more than 10 minutes.

Do not use waxes or waterproofing over the tiles without professional advice and monitoring.

Be careful when cleaning furniture, glass, and appliances, as the splash of cleaning products may stain your porcelain tiles.

5. Table for Periodic Maintenance

The system durability will also be a function of punctual maintenance actions, such as scheduled replacement of elements, inspections, and repairs.

The tables below indicate the frequency of such actions in order to enable the actual achievement of the project's useful life.

These actions must be performed by specialized companies and their qualified professionals as described in NBR 15.575-1:2013. All maintenance must be documented for future proof, and the custody of this information is the responsibility of the end user, also as established in the standard.

Table of MANDATORY Maintenance Schedule for Ceramic Flooring and Walls

Maintenance	First actio	Frequency	Description
Wax application	---	---	Do not apply wax to ceramic tiles.
Doormat or carpet cleaning	immediate	Weekly	Protection element against scratches and surface wear specified in the project, for example: Hall entrance, kitchen, bathroom, etc.
Cleaning with light products	immediate	Weekly	Damp cloth or with neutral detergent as needed.
Inspection of cracks in grouts	immediate	Every 1 year	Inspect and correct cracks in grouts, proceeding with its removal and reapplication.
Inspection of cracks in ceramic tiles	immediate	Every 1 year	Inspect and correct cracks in the tile plates, replacing them with others from the technical reserve, thus avoiding shade variations.

Maintenance	First action	Frequency	Description
Inspection of “Tubby” sounds (hollow sound)	immediate	Every 1 year	Replace plates that sound hollow.
Inspection of expansion joints	immediate	Every 1 year	Before heavy cleaning, inspect and replace, if necessary, the sealing element for floor expansion joints (silicone, putty, EPDM, or equivalent). Usually, silicone gaskets last between 5 and 10 years and EPDM gaskets between 10 and 20 years.
Friction assessment in common wet areas	in the fifth year	Every 5 years	Friction assessment in common wet areas in the fifth year Every 5 years The traffic of vehicles, equipment and people can cause a “polishing” effect, reducing the friction coefficient of any type of coating (ceramic, cementitious, vinylic, etc.) to values below 0.4. Measure such coefficient with Tortus equipment according to NBR 15.575-3 at traffic concentration points, replacing plates that are slippery (polished by traffic)
Friction assessment in private wet areas	in the tenth year	Every 10 years	Friction assessment in common wet areas in the fifth year Every 5 years The traffic of vehicles, equipment and people can cause a “polishing” effect, reducing the friction coefficient of any type of coating (ceramic, cementitious, vinylic, etc.) to values below 0.4. Measure such coefficient with Tortus equipment according to NBR 15.575-3 at traffic concentration points, replacing plates that are slippery (polished by traffic)

Table 02 – Maintenance Schedule for Ceramic Flooring and Walls

5.1 Table of OPTIONAL Maintenance Schedule for Ceramic Flooring and Walls

Maintenance	First action	Frequency	Description
Inspection of stains	immediate	Every 6 months	Replace stained plates, if desired, using plates from the technical reserve to avoid shade variations.
Grout cleaning	immediate	Every 1 year	A non-point, fan-shaped hydro jet can be used at a distance of 30 cm, up to 2,000 bars to clean grouts. Use neutral detergent or diluted chlorine to help with cleaning. For environments where the use of a water jet is not possible, use specific post-construction cleaning products for the ceramic or porcelain tiles described here.
Cleaning with heavy products	immediate	Every 1 year	Specific post-construction cleaning products for ceramic or porcelain tiles described herein.
Polishing inspection of technical porcelain tiles	in the fifth year	Every 5 years	The shine of polished technical porcelain tiles can be lost with traffic. Assess the need, feasibility, and consequences of repolishing the entire environment.
Polishing inspection of enameled porcelain or glossy ceramic tiles	in the fifth year	Every 5 years	The shine of glossy enameled coatings can be lost with traffic. This type of coating cannot be re-polished and, if desired, must be replaced.

Maintenance	First action	Frequency	Description
Tiles' end of service life	In the thirteenth year	Every 13 years	Brazilian floor and wall coverings are designed for a minimum useful life of 13 years, as established in NBR 15.575-1. After this time, maintenance costs can become too high, justifying the change of the coating. In many cases, this time is extended to tens of years, according to good conditions of use and maintenance.

Table 03 – Maintenance Schedule for Ceramic Flooring and Walls

5.3 Table of MANDATORY Maintenance Schedule for Facade Ceramic Coating

Maintenance	First action	Frequency	Description
Inspection of cracks in ceramics and grouts	in the second year	Every 2 years, before washing the facade	Inspect and correct cracks in the coating, proceeding with its removal and reapplication. Assess the extent of the cracks as to the possibility of the base structure being compromised. In this case, request an evaluation by a qualified professional.
Inspection of “Tubby” sounds (hollow sound)	in the second year	Every 2 years, before washing the facade	Replace plates that sound hollow.
Facade cleaning	in the second year	Every 2 years	Wash the facade with a water jet of up to 2,000 bars (with a fan-shaped hydro jet). Use neutral detergent to help with cleaning. Do not use chlorine or other chemicals.
Inspeção de juntas de dilatação	in the second year	Every 2 years	Inspect and replace, if necessary, the sealing element for floor expansion joints (silicone, putty, EPDM, or equivalent). Usually, silicone gaskets last between 5 and 10 years and EPDM gaskets between 10 and 20 years.

Table 04 – Maintenance Schedule for Facade Ceramic Coating

5.4 Table of OPTIONAL Maintenance Schedule for Facade Ceramic Coating

Maintenance	First action	Frequency	Description
Inspection of stains	in the second year	Every 2 years, before washing the facade	Replace stained plates, if desired, using plates from the technical reserve to avoid shade variations.
Tiles' end of service life	In the twentieth year	Every 20 years	Brazilian façade coatings are designed for a minimum useful life of 20 years, as established in NBR 15.575-1. After this time, maintenance costs can become too high, justifying the change of the coating. In many cases, this time is extended to tens of years, according to good conditions of use and maintenance.

Table 05 – Maintenance Schedule for Facade Ceramic Coating

Additional Documents

Portobello reserves the right to change the content of the cited texts at any time and without prior information, therefore, all cited documentation must be kept under the custody of the customer as established in NBR 15.575-1

- Technical service manual to NBR 15.575
- Technical installation manual (specific for each type of product)
- Product certificate or product datasheet (individual for each product)
- Portobello Products General Warranty Certificate
- Online Virtual Specifier: especificadorvirtual.portobello.com.br



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