CLEANING RECOMENDATIONS FOR CERAMIC TILES

CERAMIC TILES

1. HYGIENIC PERFORMANCE OF CERAMIC TILES

The manufacturing process for ceramic tiles includes firing at high temperature (around 1100ºC-1200ºC), and even higher temperatures in the case of porcelain tiles. This temperature causes chemical reactions between the different components in the tile body and the glaze, as well as physical transformations whose main results are the creation of a hard, compact and highly resistant structure, and the reaction and immobilisation of heavy metals, by forming compounds characterised by their high level of chemical inactivity.

As a result, it is impossible for any microorganisms to be present, as the high temperatures used during the manufacturing process make it impossible for them to survive.

If ceramic wall and floor tiles are correctly laid using suitable bonding and grouting materials for their type of use, they are the most effective, comfortable and safe alternative for maintaining correct levels of hygiene and cleanliness.

Their impermeable surface prevents the absorption of any type of liquids, vapours, toxic substances or any other type of contaminant, as well as the production of reactions, putrefaction, efflorescence or organic cultures, due to their non-porous features.

Also, their chemical resistance means they are capable of withstanding aggressive detergents and disinfectants without any alteration, which could not be used with other types of wall and floor coverings. The fact that they cannot become electrostatically charged means that they contribute towards physiological comfort and do not attract electrically charged dust in the atmosphere.

Ceramic tile surfaces are resistant to any type of adherence, and any substance that does become adhered due to the presence of materials such as grease or mud can be easily removed. This also applies to the hygienic properties of ceramic tiles in response to the deposition, accumulation and development of microorganisms and pathogenic or allergic substances.

2. PRECAUTIONS WHEN LAYING TILES:

a) Remnants of grouting material should be removed using a sponge dampened with clean water. The material should be removed as soon as possible, as if it is in contact with the glazed surface for a prolonged period it will be difficult to remove, especially on tiles with a relief patterned surface.

b) When laying floor tiles, it is essential to protect the tiles that have already been laid using a suitable method, to prevent damage caused by abrasive material and dragging tools across the surface. Apart from protecting the surface of the tiles, this will make any subsequent cleaning processes easier.

c) Do not use cleaning agents that contain hydrofluoric acid or solid detergents that contain particles that may scratch the material. Hydrofluoric acid will completely remove the glazed surface of the material, causing irreparable damage.

3. MAINTENANCE TIPS

Glazed porous as well as unglazed non-porous floor and wall tiles do not need any type of maintenance once they have been laid. From all of the different types of materials and products used as wall and floor coverings, ceramic tiles have the least maintenance requirements.

Regardless of the type of glaze, intrinsic features such as resistance to surface abrasion or scratching are directly associated with the abrasive agent between the tiles and the sole of the footwear moving over them. To avoid premature wear, floors must be kept clean, placing mats at the entrance to premises with direct access from the street or gardens.

For ordinary cleaning, a damp mop or sponge is recommended. The cleaning water must be renewed frequently so that the previously removed dirt is not deposited on the surface again. It is advisable to use neutral cleaning products.

Glazed wall and floor tiles only require normal cleaning with a mop or damp sponge to return them to their original appearance, plus neutral cleaning product.

Cleaning agents containing waxes should not be used, as they will eventually form a film over the tile that will make them susceptible to absorbing and retaining foreign substances, causing stains that are highly visible and more difficult to eliminate using ordinary cleaning methods.

In bathrooms, where remnants of soap or lime scale can accumulate, tiles should be cleaned regularly with a suitable detergent product, leaving it to act for a few minutes before rinsing.

Removing difficult stains and incrustations. To remove difficult stains, for example on surfaces that have not been cleaned for some time, powdered or liquid detergents should be used, rubbing with a sponge or scourer. Special attention should be paid to the tile joints, as they must be restored if they are no longer intact or waterproof, using appropriate sealants.

Metallic blades or spatulas should not be used on glazed tile surface, or concentrated products when you do not know the chemical resistance rating of the wall or floor tiles.

Accidents can cause ceramic wall or floor tiles to become stained with different types of substances. Stains and incrustations can be removed using physical and chemical methods, using the most suitable method for the type of tile and the type of stain.

The physical methods involve using detergents or very fine abrasives, which physically remove the stain from the tile surface.

The chemical methods are based on a chemical reaction between the stain or incrustation and the detergent that dissolves it or discolours it.

Only use concentrated acids on glazed tiles if their composition is known, as certain types may affect the tile surface. The following table shows some examples of suitable products for treating specific stains. If the type of stain is unknown, different detergents should be tested, rinsing the surface with water and drying it after each test. In other cases, it may be effective to repeat the treatment several times or use hot water to help with the reaction.

Cementitious adhesive	**Acid detergent**
Coffee, tea, food, fruit, juice or cosmetics	**Normal detergent dissolved in hot water**
Greases	**Baking soda and water, neutral soap (use a mild scouring pad)**
Pencil stains	**Soft eraser**
Organic stains	**Alkaline detergent**
Marker paint	**Solvent (turpentine, acetone, ethanol)**
Rubber remnants	**Alkaline detergent, solvent**
Gasket remnants	**Acid detergent**
Silicone remnants	**Hydrogen peroxide or diluted bleach solution (on smooth surfaces not susceptible to scratching, a vitroceramic scraper can be used)**
Blood	**Hydrogen peroxide or diluted bleach solution**
Inks	**Diluted bleach solution**
Iodine or bromine	**Acid detergent, hydrogen peroxide, diluted bleach solution, ammonia**

In any event, if you have any doubts whatsoever, consult the technical data sheet for the product.

Also, when carrying out any unconventional cleaning method, first test a small zone before applying the treatment to the whole surface, checking the reaction.