Cleaning Instructions

A) General

Market research studies, tests and above all practical experiences prove that ceramics presents excellent properties in comparison with other covering materials. Especially its lasting beauty, easiness of cleaning and high functionality at the same time are decisive criteria both in private and public areas.

Our products are high-quality branded articles. All glazed and unglazed materials have surfaces which are ideal for problem-free cleaning.

When using any cleaning agent, please make sure that the instructions for use and danger indications of the respective manufacturer are complied with. Understandably, we can not assume liability for any damage resulting from the non-compliance with these instructions and indications.

Never use cleaning agents containing hydrofluoric acid or its compounds (fluorides). They attack the ceramics even if diluted with plenty of water.

B) Basic information

There is an old truism still applying today: dirt which is not brought in does not have to be removed! Foot-scrapers, foot-mats and zones provided for cleaning the shoes by walking in front of the entrance area ensure that most of the dirt is left outside.

For the cleaning process, the following principles apply:

- 1. Choice of the appropriate cleaning agent
- 2. There must be sufficient time for the cleaning agent to act upon the dirt and to loosen it
- 3. The process must be supported mechanically by brushing or wiping. Do not use so-called pads or brushes with abrasive grain addition!
- 4. The dirt separated from the covering must be thoroughly collected, washed off or sucked off.

C) Cleaning after finishing the laying works or first cleaning

The first cleaning takes place immediately after finishing the laying works. After having removed the coarse dirt by sweeping, the thorough cleaning follows by adding the appropriate cleaner to the water.

Cement films, i.e. residues of hydraulically hardening laying and pointing materials, can be removed only with acid cleaning agents, so-called cement film removers. Acid cleaners attack cement joints. Therefore, protect the joints by pre-wetting and thoroughly rinse the covering with clear water after the use of acid cleaners, possibly neutralize it.

Normal dirt can be removed best with alkaline or neutral cleaners.

D) Regular cleaning

The regular cleaning is unproblematic and will be required in different intervals, depending on the degree of soiling and utilization of the covering: weekly, daily, several times a day in very heavily frequented areas. In general, it is sufficient to use water with commercially available cleaners for the regular cleaning. Combined preparations for cleaning and care at the same time are not necessary and possibly may even be problematic in the long run: sticky grease, wax and synthetic layers may form on the covering, which have a negative influence on the visual, hygienic, non-slip and cleaning properties.

E) Basic cleaning and stain removal

Basic cleaning means a particularly careful interim cleaning. The use of special cleaners, longer times for the agent to act upon the dirt and increased mechanical support by brushes and possibly by scouring powder ensure a thorough cleaning of the covering.

For the removal of the most common stains, the following agents are suitable:

Calcareous deposits, urine stone, rust stains and metal abrasion residues:

Use acid cleaners, thoroughly pre-wet cement joints and completely remove the acid cleaner by rinsing with clear water or neutralizing after sufficient time for the cleaner to act upon the dirt.

Tar, bitumen, paint drops, residues from expansion joints and media with synthetic resin additives:

Stains of this type are removed best with organic solvents such as e.g. naphtha, acetone or so-called caustic pastes.

Epoxy resins:

They can be removed with caustic pastes or special cleaning agents.

Oil, grease, wax:

Highly alkaline cleaners are capable of loosening and removing these substances. In the case of extreme soiling, the effect can be supported by solvents. Unglazed ceramics without upgrading or impregnation possibly may show stains caused by oil, grease or coloured liquids, which can not be completely removed again.

Rubber abrasion residues, pencil lines:

The chemical loosening by means of cleaning agents is not possible. In this case, only a mechanical removal by rubbing or brushing is effective, possibly supported by scouring powder.

F) Unglazed ceramic tiles

As a preventive measure, unglazed ceramic tiles without in-plant upgrading should be impregnated in cases where practical experience shows that the floor may come into contact with coloured liquids, grease or oil.

All unglazed tiles with in-plant Protecta upgrading as well as the series Quantum need not and must not be impregnated. Just like in the case of glazed ceramics, the impregnation can not penetrate and consequently accumulates on the surface as a greasy layer.

G) Slip-resistant ceramic tiles

Our product range includes a great number of slip-resistant glazed and unglazed series. These products are perfectly suitable for the use in commercial, industrial and public areas as well as in wet barefoot areas such as swimming pools, showers, saunas and the like. They have smooth or micro-rough and profiled surfaces, depending on the area of application. In the case of slip-resistant surfaces, mechanical cleaning by means of brushing machines, high-pressure or vapour pressure cleaners is most effective. The joints must also permit the required cleaning. Brushes or pads containing abrasives must not be used under any circumstances, because they reduce the slip resistance. The cleaning agent, equipment and process must be suitable for the respective type of dirt and area of application. Residues of cleaning agents or disinfectants make the floor covering slippery; therefore, thoroughly rinse it with clear water. Cleaning agents forming a film also have a negative influence on the slip resistance.

For the basic cleaning and the continuous regular cleaning, alkaline cleaning agents have to be used. In the case of soft water, cleaning with an acidic cleaning agent is required only from time to time (once per week or once per month, depending on the water quantity and hardness in the respective area). Correspondingly, harder water requires the use of acidic cleaning agents more frequently.

A selection of appropriate cleaning agents can be taken from the RK-List (list of tested cleaning agents for ceramic coverings in swimming pools) available from "Deutsche Gesellschaft für das Badewesen".

H) Polished porcelain stoneware

In the case of this material, we recommend to impregnate the dry and clean covering after the first cleaning taking place immediately after finishing the laying works. If an impregnation is carried out once, it improves the easiness of care and considerably facilitates the removal of stains caused by dirt, oil and coloured liquids.

I) HT-coated floor and wall tiles

HT proves its worth in all areas where particularly easy cleaning and perfect hygiene are required. The surface coating for wall and floor

tiles offers three important advantages:

- it is extremely easy to clean
- it has an antibacterial effect
- it eliminates disagreeable odours.

The effects are based on the principle of the photocatalysis. The catalyst titanium dioxide, which is durably baked onto the glaze, effects a reaction between light, oxygen and air humidity. In this process, activated oxygen forms, which decomposes microorganisms such as bacteria, fungi, algae and moss.

HT-coated tile surfaces are hydrophilic: instead of being repelled, the water spreads to form a thin film. In this way, dirt is washed down by the water and can be easily removed.

The coating, which is unique in this form, is practically indestructible. The photocatalytic effect already activated by normal indoor lighting or natural light is permanently conserved.

For the cleaning, the same products can be used as for comparable ceramics without HT coating - with the advantage that the concentration of the cleaning agent can be considerably reduced. In this way, HT noticeably reduces the maintenance costs and at the same time contributes to environmental protection.

All substances forming a film (so-called care or gloss-improving products) and impairing the effectiveness of HT must be avoided as the incidence of light onto the tile surface is impeded by that. As soon as light falls on the tile surface again after removing such a care agent film, HT is re-activated.

The thorough removal of cleaning and disinfecting agents is also very important. Otherwise, they form a greasy, sticky layer in combination with moisture, which impairs the slip resistance and impedes the activation of HT. HT does not affect the original properties and advantages such as resistance to abrasion, slip resistance or resistance to chemicals. That is why strongly acidic or strongly alkaline cleaning agents can also be used for an intensive cleaning without destroying the coating.

You will find further information about HT in our special brochure.

J) HT-coated facade ceramics

At the installation, it is almost impossible to avoid soiling with oily, greasy substances or any other dirt. To obtain a clean facade for the final inspection, cleaning must be carried out as follows:

- Spread a weakly alkaline or an alkaline cleaning agent in the specified dilution ratio on the facade ceramics by means of a sponge or a cloth
- Wipe several times in order to ensure a sufficient soaking time and to support the cleaning mechanically
- After that, wipe with clear water
- Possibly existing traces of metal abrasion can be removed with an acidic cleaning agent with abrasive grain. This procedure must be supported mechanically by repeated wiping.
- Impurities such as lacquers or paints can be detached and removed by means of pickling pastes.
- In the case of special impurities, we will be pleased to support you with specific recommendations. It will of course be useful to give us a short description of the type of impurity.

The maintenance cleaning of the facade is effected by sun and rain on all surfaces directly exposed to the rain thanks to the HT coating applied in-plant. Due to the hydrophilic surface, the rainwater forms a thin film which infiltrates the dirt and leads to a "self-washing" effect. Thus, every shower cleans the facade free of charge.

You will find further information about HT in our special brochure.