

Technical characteristics, instructions on installation and maintenance of TechniStone® floor and wall tiles

everlasting beauty

TechniStone®

Dear customer, Thanks for choosing TechniStone® products. TechniStone® is one of the hardest and most durable surfaces available and we hope it will serve you well for a long time. Please read these instructions very carefully before you start the installation process.

1. Basic characteristics of TechniStone®

TechniStone® is produced from high-quality natural raw materials (quartzes, granites), mirrors and glass granulates, color pigments and quality polyester resin. More than 90 % of the product mass is formed by natural components.

- The polyester resin used as a binder not only the increase in the strength characteristics, but also the thermal expansion of the product. Therefore, it is necessary to consider this fact during the design phase of floors and wall claddings from TechniStone®. TechniStone® material is suitable for surfaces with floor heating.
- The production technique and raw materials used result in very low product water absorption. Therefore, preparation for the installation surface and adhesives or jointing materials are different as compared to natural stone or ceramic.
- The product is recommended for interior use only.

2. Recommended use of the product TechniStone®

TechniStone® quartz may be used for small or large-sized wall and floor tiles, interior components, construction elements, furniture and accessory components.

Before the selecting a specific product, it is necessary to understand the characteristics and dimensions with respect to the following:

- according to specifications for antislipperiness choose proper surface finish
- according to thermal load characteristics of TechniStone® products choose proper tiles dimensions, jointing and expansion
- according to mechanical load of surface - choose proper surface finish and installation of cleaning areas
- according to dynamic (traffic, travelling) load choose proper thickness of the product

For more details, please, see General Commercial Terms of company Technistone part III/2 or on web sites www.technistone.com.

3. General principles for installation of TechniStone®

Being made from nature materials, color variations of the product could appear. The product is sorted by producer according to the basic color standards. Slight optical color differences are normal and should be respected. Color shade is given on the box label. In spite of the fact, before starting the installation, it is necessary to open several boxes of tiles, lay the tiles on the floor under natural light and check the color consistency. **To avoid any problems with color consistency on the floor is recommended to lay the tiles consecutively one by one from several different cardboard boxes, not only from one cardboard box.**

- It is recommended to have the TechniStone® product installed by a specialized company, which is experienced in the installation of TechniStone®, quartz or natural stone.
- During installation of TechniStone® quartz it is necessary to conform to relevant standards, product MSDS or SDS, recommendations of the producers of the subfloor mixtures and of the producers of glues, jointing and expansion materials.
- It is necessary to adhere to the preparation technology and production procedures given by the producers of subfloor mixtures, gluing and jointing materials and other construction chemicals.

4. Installation and cleaning of TechniStone®

A. Preparation of subfloors

All subfloors on which the product is installed must be: dry (maximal humidity of the concrete must be 2-3%), stable, solid, compression-resistant, sufficiently flat (deviation from the flatness should be max. +/- 2 mm on 2 m of the surface) and cleared from removable particles, dry surface "cement grout", dust, fats, oils, wax, paints, dismantling chemicals agents and everything that could decrease their adherence. These particles must be removed in the best case by sand blasting (milling off or honing also possible), which is followed by a deep cleaning with a vacuum cleaner. The subfloors have to be suitable for the acceptance of the load and endure the stress expected in the specific application

B. Adhesives and joining materials

Adhesives Elastorapid, Granirapid or Keralastic from Mapei Company; AD 570 and AD 530 from Lasselsberger Company or their equivalents are recommended. Do not use standard cement-based glues for usual ceramics or other tiles. Technistone silicone sealant or Mapesil LM (standard traffic), Mapeflex PU21 (heavy traffic, horizontal floors), Mapeflex PU 30 (heavy traffic, slanted floors) or cement based jointing material Ultracolor from Mapei company or their equivalents are recommended.

C. Technique for installation

- Adhesives must first be spread as a thin layer (approx 1 mm) to the base by a smooth trowel to build a quality transition between the base, the adhesive and the tile. Only such an area will be prepared, which prevents drying of the surface layer of the adhesive at those places, where the tiles were still not installed. Afterwards the layer of the adhesive is spread on the base by a toothed trowel. The toothed trowel also delimits the thickness of the adhesive layer and by its individual teeth it creates a space for the uniform spread of the adhesive after the tile is laid down (10-15 mm layer according to tile dimensions).
- It is necessary to use the system with double coating of adhesive in such a manner that 100 % of the tile surface is covered by the glue. A continuous 1 mm layer of the adhesive is applied on the bottom face of the tile and only after that the gluing of the tile to the tooth-formed adhesive applied to the base will be accomplished.
- Tiles are fixed to subfloor, with proper joints. The tiles should be installed by keeping joints from 3 up to 7 mm. Dividing joints in squares 7x7 m for standard and 4x4 m for heavy traffic floors should be performed. It is necessary to keep the dilatation joints near the wall connections, columns and other construction parts passing through the floor (peripheral joints).

- Flatness and rectangularity have to be controlled continuously.
- It is necessary to wait before the start of the jointing (about 24 hours according to recommendation of adhesive producer). The cementing jointing materials are always spread over the whole tile. After the setting of the material in the joints starts, the surface of the joint is prepared (smoothed) with a moistened sponge and the remains of the jointing material are rubbed down from the tiles. The final cleaning of the surface by using recommended cleaning agents is done after the setting of the material in the joint is finished.

D. Cleaning after the installation

For cleaning, especially after the installation and joining of the floor tiles or for the cleaning of the tiles, which are highly dirty in the long term, is necessary to use recommended products: Cement film remover (Akemi), HG cement, mortar and efflorescence remover (HG International), HMK-R163 Cement Film remover (Moeller Chemie), Lithofin MN Builders-Clean (Lithofin), BERT27 Detergente acido (Bellinzoni) and Keranet (Mapei) or CL 802 (Lasselsberger).

5. Cleaning, maintenance and protection of TechniStone®

The cleaning and maintenance of TechniStone® quartz depends on the surface finish of the product, on the location of the product, on the mechanical load of the product, etc. The cleaning and maintenance, especially of larger surfaces, are recommended to be performed by a specialized company experienced in maintenance of the TechniStone® products or quartz.

- Before using a chosen cleaning or protecting agent (especially valid for industrial cleaning agents for the cleaning of floors, it is necessary to test it on a small area and only after the evaluation of the results on a dried-up product to carry out the overall application.
- After using cleaning agents, it is always necessary to remove the cleaning agent and the released impurities from the product surface quickly and carefully and to wash the surface thoroughly with pure water.
- Longer and not necessarily required exposure to aggressive cleaning agents will probably erode the product surface! The product surface (especially its polished surface finish) **does not resist long-term to exposure to strong bases (NaOH, KOH...) and does not resist even short-term to the hydro fluoric acid (HF)**. These chemicals are contained in some cleaning agents, which are available on the market. Therefore it is important to use only products which are suited for the cleaning of quartz; they may not be identical to the cleaning agents for natural granites or ceramics.
- It is necessary to take into account and keep the recommendations of the producers pertaining to the usage (e.g. dilution...) and with the safety regulations of used agents. It is necessary to use protecting instruments according to the instructions from their producers.
- For cleaning and maintenance, please use agents, which are recommended by producer, please see web site: www.technistone.com.
- Recommended cleaning agents for **everyday cleaning**: Fila Cleaner (company Fila), HMK-R155 (Moeller Chemie), Real HIT floor (Zenit), CL 803 (Lasselsberger), L&L Wash and polish (Bellinzoni), Lithofin Easy-Care Cleaner (Lithofin).
- Recommended cleaning agents for **intensive cleaning**: Deterdek (Fila), HMK-R154 Stripper Stain Remover (Moeller Chemie), Stone Cleaner (Akemi), Real HIT Universal (Zenit), HG super remover (HG International), Ultra Stripper Detergente Forte (Bellinzoni).
- Recommended product for **surface protection**: Fila MP/90 (Fila), HMK-S232 (Moeller Chemie), Lithofin MN Protector (Lithofin), Store impregnation (Akemi), HG Top protector (HG International), Idea HP or Idea Gold (Bellinzoni).

For more details, please see General Commercial Terms of company Technistone part III/3 or on web sites For more details, please see General Commercial Terms of company Technistone part III/3 or on web sites www.technistone.com.

6. Warning

The user is responsible for any consequences resulting from incorrect installation and cleaning.

In case you have any other questions and for more details please see General Commercial Terms of company Technistone that is given on www.technistone.com or available by Technistone distributor in each country. List of distributors see at the same web sites.

While the indications and guidelines contained in this data sheet correspond to the company's knowledge and wide range of experience, they must be considered, under all circumstances, merely as an indication and subject to confirmation only after long-term, practical applications. Therefore, those who undertake to use TechniStone® product, must ensure beforehand that it is suitable for the intended application and, in all cases; the user is to be held responsible for any consequences originating from its use.

(EN) GUARANTEE CHANGE FOR SPECIAL SURFACES

Thank you for your interest in Technistone product.

Even though this product complies with the highest quality requirements, it is necessary due to technological reasons that this design surface is impregnated with one of the recommended products listed below or its equivalent before the final installation at the client's place.

The level of a surface resistance without such a treatment does not reach the level that you are used to receive from Technistone. **Therefore the standard Technistone guarantee according to General Commercial Terms cannot be applied for non-impregnated products.**

(CZ) ZMĚNA ZÁRUKY PRO SPECIÁLNÍ POVRCHY

Technistone Vám děkuje za zájem o tento produkt.

I přesto, že tento výrobek splňuje nejvyšší požadavky na kvalitu, je nutné tento designový povrch z technologických důvodů před finální instalací u klienta impregnovat jedním z doporučených prostředků uvedených níže nebo jeho ekvivalentem.

Bez takového ošetření nedosahuje odolnost povrchu produktu úrovně, na kterou jste u výrobků Technistone zvyklí. **Z tohoto důvodu na neimpregnované výrobky nelze uplatnit standardní záruku jako na leštěné povrchy dle Všeobecných obchodních podmínek.**

RECOMMENDED PRODUCTS / DOPORUČENÉ PRODUKTY

TS Protection (Technistone)
Idea Gold (Bellinzoni)
Idea Dark (Bellinzoni)
Fila MP/90 (Fila)
Fila StonePlus (Fila)
Nanoinduro (GF Chemie)
Or products with similar content

(EN) WARNING TO STAFF

Use of the material: Quartz surfacing designed for kitchen and bathroom worktops, flooring, cladding and other architectural uses.

Composition (%): The material is made up of inorganic mineral deposits (85-95%), including, but not limited to, silica sand, quartz, cristobalite, glass and others, polyester (5-15%), pigments and additives (<5%).

There is no provision for any risk associated with the finished Technistone® material in the CLP (CE) regulation n° 1272/2008. However, during manufacturing and installation of the material, it is necessary to consider the following information. Please read carefully.


WARNING TO STAFF DURING FABRICATION AND INSTALLATION

Fabricators are recommended to manufacture this product by using manufacturing methods that involve the use of water to avoid the creation of dust. Dust derived of manufacturing process processes contains Crystalline Silica (SiO₂).

Long term unprotected exposure to dust derived from the cutting, polishing and manufacturing processes may cause serious diseases as pneumoconiosis, silicosis as well the deterioration of lungs including diseases such as bronchitis, emphysema, etc. Fabricators should comply with all applicable governmental regulations.

For specific information on each case, please, read our Material Safety Data Sheet and Good Practice Guide to manufacture. Information available at www.technistone.eu

HEALTH & SAFETY INFORMATION ABOUT CRYSTALLINE SILICA (SiO₂) RESPIRABLE FRACTION.



HAZARD
H372: Causes damage to lungs through prolonged or repeated exposure (inhalation)

PREVENTION
P260: Do not breathe dust generated in the cutting, grinding and polishing processes.
P264: Wash face and hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this material.
P284: Wear respiratory protection for particles (P3).

FIRST AID MEASURES
P314: Get medical advice/attention if you feel unwell.
P501: Dispose of scrap material in accordance with local regulation