

Installation Instructions for TopStone® Surface

TOPSTONE[®]
The creator of stone surface

Temperatures for the installation: 10°C - 25°C (recommended), +5°C and + 35°C (limit) / PolyaStone: 2°C - 30°C
The temperature of air and substrate must not drop below 2°C during implementation and curing.
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1. Thoroughly check the substrate (air and substrate moisture, strength, consistency, age, or insulation).
2. Prepare a set of implementation tools: Steel trowel, scales, container (at least 2 litres) for mixing resin with hardener (binder), a pail or a bucket for stirring the TopStone® mixture, a stirrer (whisk) for a drill, separator - plastic wrap or lard, technical acetone, safety gloves, goggles, work clothing, cloths for cleaning, roller or paintbrush, broom, vacuum cleaner, wire brush, grinding stone, etc.
3. Outline a schedule with respect to the pot life of the mixture, which is 40 minutes at 20°C. The pot time is 30 minutes at 20°C in case of EspoStone Clear (interiors and bright stones), and is reduced when the ambient temperature is higher. It is recommended to mix a smaller amount of material in case of more complex details.
4. Prepare the substrate properly – remove any loose parts by grinding, vacuuming or sweeping away.
5. The producer recommends to use the TopFix primer (apply the primer according to the label on the package) or TopFix Interiér for interior, based on the type and quality of the substrate to improve the substrate and extend the life of the surface.
6. Prepare the closing edge and formwork (shuttering) for the surface border, vertical surfaces, etc. - **always use a separator (lard) for the formwork. All vertical surfaces must be primed!**
7. **Select the type of TopStone® surface border:**
 - With a sharp edge - stretch the mixture to a planed board with separator. After the curing of the material is finished, remove the board to get a sharp edge.
 - End with a molding - use L-shaped aluminum terminal strip at the height of the TopStone® surface you are implementing. Glue the terminal strip with the TopFiller putty and stretch the TopStone® mixture to it.
 - You can finish the surface with a standard concrete or stone curb.
 - "Gradient" - i.e. gradually decrease the height of the mixture to the substrate and stretch it e.g. to a grassy area, etc.
8. Glue the expansion and terminal strips with a putty, e.g. TopFiller (according to the label on the package), or with Mamut Glue.
9. **Let's start with the installation of TopStone® surface:**

First, thoroughly mix the binder/resin (component A) with the hardener (component B) in a separate small plastic container. Mixing ratios of the components are listed on the label on their packaging. Measure the amount with scales. Stirring the mixture of both components thoroughly (about 1,5 minutes). Do that manually with the help of a wooden stirrer or a steel stirrer mounted on a drill.

If you buy the binder within the "TWINPACK" packaging there is no need to measure or weigh. Simply remove the central clip and stir the mixture inside the package for at least 1.5 minutes. Subsequently tear off the corner and pour the content into the container with stones.
10. Then prepare a larger plastic container and put the stones inside. After that, pour the mixed binder into the container with stones and slowly stir with a slow-turning mixer for 1.5 minutes. **Thorough stirring affects the resulting surface quality!**
11. Apply the prepared mixture **immediately (respect the pot life of 40 minutes at 20°C, or 20 minutes at 30°C in case of EspoStone Clear and PolyaStone application (interiors and bright stones), which varies with temperature, as cold extends and heat shortens the pot life)** to the prepared surface (possibly to the uncured TopFix primer) and smooth and compact the surface **perfectly with a metal trowel cleaned** with technical acetone or TopCleaner. It is necessary to gradually compact the material in layers in case of surface with thickness greater than 2cm. When installing the system on a larger area or when processing in several stages or days is necessary, it is possible to interrupt the installation and finish the surface with a so-called "sharp edge". If you stretch the mixture to a planed board (**with a separator**), you can continue the next day after removing the board without any problems. (The daywork joint remains visible). Solidify **the vertical surfaces** implemented with the help of formwork by compacting the mixture and tapping the formwork. Prior to the implementation of vertical surfaces (stairs, skirting etc.), we recommend to watch the Stairs technological process, which deals with the formwork and installation in detail. For a better idea watch the instructional video and manual on our website: <http://www.topstone.cz/radce-nakupem/vidonavody>
12. Carefully remove the formwork within 3 days and clean the surfaces, preferably after 24 hours at 20°C. Remains of binder can be cleaned by a wire brush or sandpaper (stone).



When can I apply a load to TopStone® surface? A slight load (walking) can be applied to the newly installed surface after 24 hours after completion at the ambient temperature of 20°C. The surface is fully functional after 7 days. Applying a heavier load (e.g. a car) is allowed after 7 days after completion. More time is required in case of ambient temperatures below 20°C. And vice-versa, a shorter period of time is required at higher temperatures. Overloading of the surface could cause degradation of binder, which may consequently lead to lower strength! Do not apply mechanical or chemical load to TopStone® surface within the first 24 hours after completion! **Good luck with the installation!**
Your TOPSTONE

TopStone® System Maintenance Treatment Warranty Conditions



TopStone® System Characteristics:

Long life, frost resistance, water permeability, slip resistance, seamless surface, good thermal conductivity, easy formability, high resistance, there is no capillary rise, drainage capability, resistance to salt and oil products, ease of maintenance and environmental friendliness.

Basic characteristics	Level	Classes
Compressive strength	16 Mpa	C 16
Tensile strength in bending	6 MPa	F 6
Impact Resistance	60 Nm	IR 60
Adhesion	5.05 N / mm ²	B 5.0
Reaction to fire	Bfl	---
Slip resistance (dry - wet)	Meets (> 0.5) according to ČSN 74 4505	---

Maintenance and Cleaning Methods

Interior: Maintenance is similar to standard complete carpet cleaning, i.e. weekly vacuuming, if needed, or damp mopping plus thorough cleaning with carpet cleaning machine or steam every year (or according to your needs). Impurities caused by liquids can be cleaned with warm water and a brush or a sponge. Remove the water immediately after the treatment and repeat the cleaning method as needed.

Exterior: Regular mechanical maintenance: broom, handle with a floor scraper with a rubber edge, high pressure water with temperature below 40°C, steam. Maintain the surface with wooden or plastic snow shovel with a rubber edge, with snow blower (without chains) or chemically in winter. Cleaning can be performed with standard detergents, while strong stains can be removed with e.g. benzine or acetone. It is possible to use salt or salt solutions in winter.

TopStone® System Treatment

In the event of a damage to the floor, such as punctures, cracks, deep scratches, burns, etc., and in case of other types of damage, you should immediately notify the person responsible for installation and minimize large-scale defects with a quick repair. In case of a chemical spill other than chemical loads, mentioned above, it is necessary to immediately remove the chemicals and neutralize the surface - exposure can cause a change of color and surface degradation.

The surface may lose gloss after certain time and load, and the stones get dull. You can use TopVital to brighten up the surface gloss. Apply this product to TopStone® surface according to the instructions. You will ensure longer durability of the surface and its original look.

For the areas of civic amenities (public swimming pools, wellness centers, public parking, bike trails, playgrounds, service roads, etc.) that are affected with increased load and frequency of movement across the surface, the manufacturer recommends to clean the entire area in every spring (when the weather allows), check the surfaces and apply a renewal coating specified by manufacturer on the whole area to restore gloss of the surface and extend the life of the system. For such surfaces, the manufacturer provides the material for a discounted price, including the surface cleaning service and subsequent application of renewal coating as a premium service for our valued existing customers.

Warranty conditions

The surface must be used for its intended purpose. It cannot be extremely mechanically stressed, intentionally damaged and treated unprofessionally with unsuitable products. You must follow the technological procedure for installation specified by the manufacturer, which means that the installation must be performed on a substrate that is solid and coherent. Binder components must be thoroughly mixed in the exact ratio stated on the label. **Application temperature:** +5°C to +35°C (PolyaStone from 2°C). TopStone® material must only be installed on dry or damp surfaces. Division of floor, so-called dilatation, must be secured with a rail. Apply expansion gaps for areas of about 10-16 m² or based on the floor plan.

The warranty does not extend to defects resulting from improper or inappropriate use, mechanical damage, improper handling and care, as well as defects originating in the hidden defects of base layers, removing the base layer, subsidence (cracking) of constructions (paved surfaces), or their parts caused by force majeure and other reasons for which the seller is not responsible. The warranty also does not cover normal wear and tear, slight discoloration caused by UV radiation or using different lots of filler.

Warranty period

24 months for the delivery including installation of the surface by TOPSTONE company or a certified installation company, a business partner.

The expiration time of the material can be found on the label of each package.



PARtNER / DEALER:

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