

Pore filler (grouting) for cementitious surfaces

Description

OBTEGO® SP-100 is a liquid compound based on various silicates and polymers, which is used together with grinding dust, as a pore filler for grinded concrete floors and screeds to close pores / cavities.

Properties

OBTEGO® SP-100 is mixed on construction site with the grinding dust from the concrete surface. Reason to use the grinding dust is, that the ready to use mixture of the pore filler should reach the same color tone of the floor.

Due to the amount of silicates, the ready to use OBTEGO® SP-100 bounds very well the concrete floor and remains still flexible due to special polymers.

Subsequent grinding steps are possible without any breakouts. Processability (pot life and application) of OBTEGO® SP-100 is longer and easier than conventional cement-based grouts. In addition, the product contains no volatile organic compounds and is suitable for green buildings certification (DGNB, LEED, BNB, etc.).

Note: The mixed OBTEGO® SP-100 cures by removing of water. This case occurs much faster on the concrete surface than in the mixing cup.

Application

OBTEGO® SP-100 is used on grinded concrete floors / cement screeds, which occurs pores and small cavities after grinding.

The ready to use product can be used to close pores / cavities with a size up to approx. 5 mm.

For very many and larger pores / cavities, it may be necessary to grout the surface twice.

Fields of application are, for example, industrial floors in commercial companies, market halls, logistics centers, supermarkets and private residential constructions. The product is designed for interior use.

Processing

1. The surface to be treated is grinded with metal-bonded diamond tools up to grit size #80 and must be free of oil, grease and other impurities, which can be acting as release agent. Collect grinding dust from the second grinding step. (approx. #40 - #80).
Use only grinding dust from the second grinding step (approx. #40 - #80). The grinding dust from the first grinding step is not useful due to the risk of contamination and must therefore be discarded!
2. Use dust collector (vacuum cleaner) before application of the grouting, to remove grinding dust from pores.
3. Saturate the concrete floor with water until the surface shows a homogenous moisture, before applying the grouting to the surface. Avoid puddles with water from wetting, otherwise the ready-mixed OBTEGO® SP-100 will become too thin and too liquid during application. If the area is well pre-moistened, no additional water is needed during application with SP-100.
4. Stir OBTEGO® SP-100 well before use!
5. Mix OBTEGO® SP-100 in a mixing cup (e.g., bucket) with the previously collected grinding dust to a creamy consistency (ratio about 1:1). For this purpose, the grinding dust is slowly incorporated into OBTEGO® SP-100 with stirring and stopped with the addition of the grinding dust as soon as the creamy consistency is achieved.

6. Spread out the ready-mixed OBTEGO® SP-100 onto the surface, distribute and remove evenly at once surplus material with a pore spatula, without leaving too much excess onto the surface. If the consistence increases significantly during pore filling application and it will be also difficult to remove surplus material with the spatula, use pump sprayer and water to moisten the surface again. Just spray some water before the SP-100 until the desired consistency is achieved again.
7. Allow the surface to dry completely (at 20°C approx. 1-2 hours)
8. Grind the floor surface crisscross with a metal-bonded diamond tool grit size #100-150 or other suitable hybrid diamond tools to remove grouting haze or some excess from OBTEGO® SP-100.
9. Repeat step 2 – 7.
10. After the surface is completely dry again, use OBTEGO® P-3 for densification and better bounding of the pore filler into the floor. (For OBTEGO® P-3 application read technical data sheet).
11. Allow the surface to dry and cure completely (at 20°C approx. 12 hours).
12. Grind the floor surface crisscross with a resin-bonded diamond tool grit size #100-150 to remove grouting haze or some excess from OBTEGO® SP-100.
13. Following this, the floor surface can be grinded/polished up to the desired grit level. To close smallest micro pores in the concrete floor, it is recommended to spray a mist of OBTEGO® P-3 (nozzle 0.2-0.3) in front of the grinder (maximum up to grit size #200).

Attention! If quite a few pores / cavities occur or with low requirements to the surface, only one application of OBTEGO® SP-100 is sufficient. Therefore, exclude step 8 and 9, but continue grinding after step 11 first with metal-bonded diamond tool (grit size #100-150).

OBTEGO® SP-100 must be processed within 45 minutes after mixing. Material that is older may not be used for processing!

Note: Protect adjoining surfaces against splashes. Clean tools and equipment with water.

Processing temperature

Avoid direct sun radiation during processing. The surface temperature should be between 10 °C and 30 °C (50 – 86 F). Turn off floor heating system. Avoid direct impact of moisture until the product is completely cured.

Drying time

The drying time (walkable) is 1-2 hours. According to ambient temperature, humidity and ventilation drying time can be varying. If an additional impregnation (e.g. OBTEGO® R-400) is applied follow technical product data sheets of those products.

Productiveness

Depending on pores and cavities in the floor, the coverage of the product varies. As a rough guideline level: 10-15 m² per ready mixed OBTEGO® SP-100 (1 liter SP-100 + 1 liter grinding dust) with two applications.

Storage

Shelf-life in cool, dry and closed container is 12 months. Open containers should be worked up as soon as possible.

Environmental Protection

Not discharged into drains. WGK 1 (low water endangering). Waste codes/waste designations according to EWC/AVV. 06 02 099: Wastes not otherwise specified. Dispose of waste according to applicable legislation. Completely emptied packages can be recycled.

Safety

OBTEGO® SP-100 is harmless to health after curing. A good ventilation should be provided during and after the processing. Wear protective gloves during the application. Safety data sheet available on request for professional users.

Labelling according to Regulation (EC) No. 1272/2008 [CLP]: Wear protective gloves/protective clothing/eye protection/face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Identification marking for transportation:

PU	PU-marking	Transport documents
a	n.a.	n.a.

Packaging Unit (PU)

a) 9 liter PE bucket

This information should only be a non-binding advice. The use of the products is based on local circumstances and on the surface itself. If there is no experience, and in cases of doubt, we recommend to try the product on a inconspicuous spot.