

Water born special sealer for cementitious surfaces and natural stone

Description

OBTEGO® R-405 is a water born, silane/siloxane based special sealer with an excellent water and oil repellent effect.

Properties

OBTEGO® R-405 reduces the penetration of aqueous liquids, grease, oils, and other dirt. The effectiveness depends on the flooring material and absorption of the surface. Depending on type of surface and surface preparation, it can come to a different result in stain protection performance. Depending on the absorption and the substrate, there may be a slight change in color. The water absorption is strongly reduced, while the water vapor permeability is only marginally affected. The active ingredients are UV-resistant and non-yellowing.

Scopes of Application

OBTEGO® R-405 is applied on power trowelled, grinded and polished cementitious floors, as well as industrial artificial stone/Terrazzo, screeds. Conditional use of the product onto polymer modified concrete floors as well as on self-leveling compounds. OBTEGO® R-405 can be used rather on natural stone like granite, gneiss, quartzite, sandstone, travertine, marble, limestone, and shale. Fields of application are e.g., industrial floors in commercial establishments (production and logistics halls), market halls, shopping malls and supermarkets in the indoor and outdoor use. Fields of application for natural stone surfaces treated with OBTEGO® R-405 are e.g., countertops, tables, window seats, stairs, and natural stone tiles for walls and floors in the indoor and outdoor use. For highly absorbent cementitious substrates, it is recommended to pretreat the surface with OBTEGO® P-2 or P-3 (hardening and densification).

Note: The acid sensitivity of the surface still remains, but it is reduced. Only limited use of R-405 on soft or scratch sensitive floors. The use of a silicate/densifier prior to R-405 can significantly improve the scratch resistance, but not turn a poor-quality floor into a very good one.

Processing

The treated surface must be dry (residual moisture < 6%), firm, clean, absorbent, free from oil, grease, releasing agents and any other impurities. At least an intensive cleaning of the surface with an auto-scrubber machine and clear water is required. For a better surface appearance and finish a diamond cleaning step with resin bond diamond tool or diamond grinding pads with grit size #100 or #200 is recommended. To ascertain the consumption, make a separate sample area of the same surface. Apply R-405 with a pressure-sprayer and spread with a short-hair microfiber mop. Ensure a uniform surface appearance. The surface must be homogeneously saturated with R-405 for approx. 3-5 minutes. Surface should be wet/moist but not flooded. A second application is difficult because the surface creates early a strong repellent effect after treatment with R-405 and the material of the second application is no longer absorbed by the floor.

Exceptions are if the floor gets still wet due to high absorbency or if the surface is lightly grinded again. If necessary, R-405 can be polished/buffed with a single-disc machine or polishing machine and a white polishing pad after several hours, or preferably the next day. For large areas, polishing/buffing can also be done with a power trowel (also double power trowel) and suitable white polishing pads. Excess material or material splashes are to be avoided. Material splashes as well as wiping and polishing marks must be removed before drying!

Note: Protect adjacent, sensitive surfaces and windows against splashes. Remove excess material before drying up. Clean used tools and other equipment with water.

Processing temperature

Avoid direct sun radiation during processing. The surface temperature should be between 10 °C and 25 °C (50 – 77 F). Turn off floor heating system. Avoid the direct impact of moisture until the complete water and oil repellency is developed.

Drying time

The water and oil repellent effect develops after 1-2 hours, the complete effectivity occurs after 24-48 hours. The surface treated with OBTEGO® R-405 is walkable after approx. 4 hours. Application of protection coverings or heavy traffic onto the surface after 48 hours.

According to ambient temperature, humidity and ventilation drying time can be varying.

If the floor must be temporary protected, use only diffusion open coverings and also only after the floor is completely dried. Recommendation: Diffusion open fleece (non-woven fabric). If necessary, to protect more use additional wooden hardboards/fibreboards on top or generally with diffusion-open protective and laying floor such as Hammerfest from the company "Protect & Cover" or comparable.

Productiveness

Depending on the surface absorption, the following values can be assumed. Reference values:

polished/fine-grinded surfaces: approx. 20 – 40 m²/liter
 power trowelled surfaces: approx. 10 – 20 m²/liter

Using a pre-treatment with silicate (densifier) e.g. OBTEGO P-3, reduce the consumption of R-405 on highly absorbent floorings.

Storage

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

Environmental Protection

Do not discharge into drain system/surface waters/groundwater.
The product is weakly water-polluting (WGK 1).

Waste codes/waste designations according to EWC/AVV. 08 02 99
Wastes from MFSU of other coatings (including ceramic materials).
Wastes not otherwise specified Dispose of waste according to applicable legislation. Completely emptied packages can be recycled.

Security

OBTEGO® R-405 is harmless to health after curing. A good ventilation should be provided during and after the processing. Notice the special precautions, if the product is used in spraying application. The safety data sheet is available for professional users on request.

Ingredients: Trimethoxy(methyl)silane, Silane/Siloxane Emulsion

Labelling according to Regulation (EC) No. 1272/2008 [CLP]. Do not breathe dust/fume/gas/mist/ vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection.

Identification marking for transportation:

PU	PU-marking	Transport documents
a	not applicable no dangerous goods	not applicable no dangerous goods

Packaging Unit (PU)

10 liter PE canister

(Bigger containers and barrels have to be inquired)

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 an inconspicuous spot.