

Premium concrete densifier and hardener with protection (Hybrid-Silicate)

Description

OBTEGO® R-30 is a highly reactive hybrid-silicate with an integrated protection against stains. The product provides the highest surface hardening of all OBTEGO silicates used for final silicization/densification of cementitious surfaces. OBTEGO® R-30 is used most on power trowelled, as well as on grinded/polished concrete floors as a final treatment.

Properties

OBTEGO® R-30 penetrates deep into the surface and reacts then with free lime to calcium silicate hydrate (CSH), which progressively hydrated to a glass-like crystalline structure. Improved abrasion resistance, dust-freeness, impermeable and more resistance on the surface you get after the treatment with OBTEGO® R-30.

The hybrid-silicate improves the density and hardness of concrete. The product reduces the penetration of liquids and dirt more as with conventional densifiers. OBTEGO® R-30 also reduces the penetration of chlorides and therefore it improves the surface to a better frost and de-icing salt resistance.

Basically, the product causes no or only slight color enhancement. The water absorption is reduced, the surface diffusion remains open.

Scope of Application

OBTEGO® R-30 is applicable to all calcareous floor coverings, such as grinded/polished and trowelled concrete floors / cementitious screeds, terrazzo tiles / terrazzo, etc. Applications are e.g., industrial floors, market halls, logistic centers, supermarkets and in private homes, indoor and outdoor use. For high-quality stain protection, we recommend our special impregnator OBTEGO® R-400 as an additional application.

Note: The acid sensitivity of the surfaces still remains, but will be reduced a little bit.

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 the product with a pump sprayer (likewise airless) and a suitable nozzle (0,2 - 0,3 is recommended). Work hand in hand with a second person, which is using a microfiber mop to spread the material to a uniform wetting. Keep the surface moist/wet (not flooded) with material for approx. 20-30 minutes. Avoid puddles during application, but keep surface saturated. Remove surplus material after approx. 30 minutes with auto scrubber machine or rub into the floor with a buffing pad. Dried up excess can create white residues, which must be removed immediately. Drying time will be around 1-2 hours.

Note: Adjacent surfaces must be protected against splashes. Remove surplus material film before drying up. Clean equipment with water. Make sure that the surface treated with R-30 is sufficient in application and functionality. This can be verified with a simple water test. Either apply on some spots over the area a few water drops or wipe with a wet mop over the treated surface. Thereby, the floor should be not get wetting immediately (become darker). In case of a wetting after a few seconds, either there is too less R-30 applied to the surface, the floor is not a 100% cementitious floor or there is any other problem exist (e.g., if the floor was already treated in the past with an impregnator).

Processing temperature

Avoid direct solar radiation during processing. The surface temperature should be between 5 ° C and 25 ° C (40 – 77 F). Floor heating maybe turn off. Avoid direct moisture until the treatment is totally dry.

Drying time

The drying time (walkable) is between 1-2 hours. According to ambient temperature and humidity, drying time can vary. For completely curing or if an additional impregnation/sealer is applied after OBTEGO® R-30 (e.g., OBTEGO® R-400) the waiting time is approx. 12 – 24 hours.

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 absorption following values are to be assumed. A second application halved the coverage. Reference value:

Grinded/polished surface (application at grit 100 or 200: approx. 7 - 15 m² / liter; power trowelled or even higher polished surfaces: approx. 10 - 25 m² / liter

Storage

Protect from frost. Shelf-life in cool, dry and closed container is about 12 months. Opened cans should be worked up as soon as possible.

Environmental Protection

Not empty into drains. WGK 1 (low water endangering). Waste codes/waste designations according to EWC/AVV. 06 02 05* other bases: *Evidence for disposal must be provided. Dispose of waste according to applicable legislation. Completely emptied packages can be recycled.

Security

OBTEGO® R-30 is harmless to health after drying up. A good ventilation should be provided during and after the processing. Observance of special security measures if the product will be use in a spraying application. Safety data sheet available for professional user on request.

Ingredients: lithium hydroxide, potassium methylsilanetriolate, silicic acid, potassium salt

Labelling according to Regulation (EC) No. 1272/2008 [CLP]. Causes skin irritation. Causes serious eye damage. Do not breathe dust/fume/gas/mist/vapors/spray. Wash with water thoroughly after handling. 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. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Identification marking for transportation:

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

Packaging Unit (PU)

- a) 20 liter PE canister
- b) 200 liter barrel (on request)
- c) 1.000 liter container (IBC) (on request)

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.