

REDUPHOB® K 4 (DM)

Silane-based mass water proofer for concrete according to EN 934-2:T9

Industrial use

Product No.: 290006010

Product Information:

Sustainability Assessment:

Reducing the water-cement ratio and increasing the durability of the concrete

EPD:

Concrete admixtures – Water Resisting Admixtures

EPD-EFC-20210197-IBG1-EN

Properties:

- up to 90 % reduction of water absorption
- excellent results at low dosage quantities (normally < 1 % referred to weight)
- chemical binding with the substrate
- extends the shelf-life of the substrate, avoids penetration of water

Application:

for concrete products, precast concrete elements

A water-repellent, solvent-free, alkyl-modified silicone fluid of low viscosity. The additive spreads very well within the concrete mix. After full setting of the concrete the additive develops a durable water-repelling property. An after-treatment at higher temperatures to reach the maximum effect is not necessary.

Efficiently lowering the clinker factor makes it possible to reduce CO₂ emissions.

A reduction in the clinker factor in cement from 0.73 to 0.5 means a reduction of > 200 kg/CO₂ per tonne of cement (calculation basis = approx. 750 kg to 800 kg CO₂ per tonne of clinker).

The life cycle assessment data and the other contents of the sample EPD can be used to assess the sustainability of buildings in which the product has been installed.

It is added as the last component to the finished mixture.

The full water-repellent effect is available when the products have completely reacted.

Do not use to manufacture elements that are intended for applications under permanent hydrostatic pressure (e.g. underwater applications).

The required mixing time after addition depends on the mixer and must be sufficiently measured. Unnecessarily long mixing times should be avoided as the effectiveness of the additive is reduced.

It is added as the last component to the finished mixture so that the hydrophobic effect does not interfere with the hydration process. Preliminary tests for determining the optimum dosage are necessary.

Dosage:

0.6 - 3.0 wt.% of the binding agent content

The consumption depends on the desired effect, on the type of cement and type of concrete.

We give application-technical recommendations for this. Give us a call!

Prior to use, a suitability test according to EN 206-1 or any applicable standards or norms relevant in your country is required. If used together with other concrete admixtures, a compatibility test is imperative. Do not expose to the sun during application. Immediately upon use the container has to be closed to avoid pollution of the material with alkali-containing materials like lime or cement. The product is supplied ready for use.

Specifications:

Appearance: liquid
Colour: white
Density: 0.98 ± 0.02 g/ml

Storage:

Under normal storage conditions (closed container, 20 °C) minimum shelf-life 12 months
Protect from frost, moisture, solar radiation and dirt.
The storage temperature must not exceed 35 °C. Stir before use.
Close container tightly!

Packaging:

Containers 1000 l, Drum 200 l, Canisters 20 l
Other delivery quantities on request

Safety Rules:

See EC safety data sheet.
The product should only be used with suitable protective gloves (EN 374) and safety goggles (EN 166).
When used, ensure good ventilation (5 to 15 air exchange per hour).

During the reaction process the product emits small quantities of ethanol, therefore, reasonable safety precautions should be taken during this time.

Assistance:

Please contact our Technical Application Centre.

Industrial use:

Recommended frequency and duration of use:
480 minutes/day
200 days/year

Environmental Exposure:

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or the sewage system.