

KEIM Silan-100 (Water repellent)



1. Product description

Solvent-free, silane based water repellent to ZTV-ING OS-A or OS-1 and to DIN EN 1504-2/1.1, 2.1, 8.1.

2. Field of application

KEIM Silan-100 is used to provide a water-repellent finish on mineral building materials that does not impede vapor diffusion, it is ideal for concrete, masonry, and mortar in exterior applications. KEIM Silan-100 works especially well on structures that are exposed to freeze/thaw loads and also to protect reinforcing steel from chloride corrosion due to salt penetration. Apply as a standalone coat or a priming coat prior to subsequent applications of any KEIM coating system. KEIM Concretal-W, KEIM Concretal-Lasur, KEIM Granital, or any other KEIM coatings system will have additional water-proofing for exposure to severe weathering stress when applied in conjunction with KEIM Silan-100. KEIM Silan-100 when applied onto concrete or masonry as the sole water repellent finish complies with OS-A of ZTV-ING or OS 1 of Rili-SIB (guidelines for the protection and renovation of concrete components published by the German committee on steel reinforced concrete (DAfStb)).

KEIM Silan-100 is used as a primer in accordance with OS-B and OS-C of ZTV-ING or OS 2 and OS 4 of Rili-SIB together with KEIM Concretal-C.

KEIM Silan-100, with subsequent coats of the KEIM Concretal system, may be used to provide Rili-SIB grade W (water-proof) surface protection.

3. Product properties

Solvent-free alkylalkoxysilane,
Active component content 100%
Will not reduce vapor permeability of substrate.

Technical data

- Density: approx. 0.9 g/cm³
- Flash point: > 40°C (104°F)
- VOC's < 10 g/l

Material characteristics to DIN EN 1504-2/1.1, 2.1, 8.1

„Hydrophobising Impregnation“

Penetration depth: Class II:= 10 mm

Water absorption and alkali resistance: Absorption coefficient < 7.5% compared to untreated sample
< 10% in alkali solution

Drying rate: Class I: > 30%

Mass loss after alternating stress (frost, deicing salt): Mass loss 20 cycles later than untreated samples

Hazardous substances: complies with EN 1504-2, 5.3

4. Application instructions

KEIM Silan-100 is ready-to-use and is applied to saturation by flooding with a low-pressure sprayer or by soaking with a brush. Application may be repeated after approx. 4 hours to 1 day in order to enhance the effect, for example in the case of exposure to extremely severe weathering or deicing salt stress. KEIM Silan-100 reacts with the moisture in the concrete, forming in conjunction with alkalinity a water repellent zone. KEIM Silan-100 may be over coated after approx. 4 hours to 1 day with coatings from the KEIM system or may be used as the sole water repellent finish. Water absorption is reduced to approx. $W_{24} = 0.06 \text{ kg/m}^2 \text{ h}^{0.5}$. Interfacial surface tension with water that is visible on the surface of the building material is formed only on alkaline substrates. Water vapor diffusion is not impeded (no reduction in vapor permeability).



Application conditions

From +5°C (41°F) up to a max. substrate temperature of 25°C (77°F) or a max. air temperature of 30°C (86°F).

Equipment and tools must be clean and dry. It is essential to avoid contact with water before application. The surface of the building material must be clean, dry and absorbent and may have to be cleaned beforehand. The quantity to be applied by flooding depends on the absorbency of the substrate (apply onto trial area). Non-absorbent surfaces cannot be treated with KEIM Silan-100. Avoid direct sunlight and exposure to strong wind.

Consumption per m² (10.8 sq ft)

0.17 - 0.2 l (5.7 - 6.8 fl oz) and approx. 0.3 l (10.1 fl oz) with two applications. Precise consumption values must be determined on the object being treated.

Cleaning of tools

Clean with white spirit, benzene etc. immediately after use.

5. Packaging

5 l and 25 l (1.3 and 6.6 gal) containers

6. Storage

Storage life 12 months. Carefully seal opened containers. Store under cool, dry conditions. Prevent moisture penetration.

7. Hazardous substances ordinance class

R 10: Flammable

R 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S 23: Do not breathe gas/spray.

S 43: In case of fire never use water.

S 61: Avoid release to the environment. Refer to special instructions/safety data sheet

8. Transport hazard class

n/a (Substance does not sustain combustion).

9. Disposal

EC Waste Code No. 07 01 99

Any residues must be emptied out before recycling.

10. Safety instructions

Provide appropriate protection for surfaces which are not to be treated (e.g. glass, natural stone, ceramics etc.). Any splashes on surrounding surfaces or traffic areas must be rinsed off immediately with plenty of water.

When using in confined spaces, keep container tightly closed. Keep away from sources of ignition. Protect the eyes and skin from splashes. Do not eat, drink or smoke during application. Keep out of reach of children.

The stated values and properties are the result of extensive development work and practical experience. Our recommendations for application, whether given verbally or in writing, are intended to provide assistance in the selection of our products and do not establish a contractual relationship. In particular, they do not release those purchasing and applying our products from the duty of establishing for themselves, with due care, the suitability of our products for the intended application. Standard building industry practices must be complied with. We retain the right to make modifications to improve the products or their application. This edition supersedes all earlier e

