



TECHNICAL DATA SHEET

KEIM CONCRETAL®-W

1. PRODUCT DESCRIPTION

Solsilicate concrete protection paint in accordance with DIN EN 1504-2/2.2, 8.2. KEIM Concretal-W is awarded with the Cradle to Cradle Certified®-Certificate Silver and the C2C Certified Material Health Certificate™ Gold.

2. FIELD OF APPLICATION

KEIM Concretal-W is used to protect concrete surfaces on exterior facades as well as interior concrete surfaces exposed to higher loads, e.g. in multi-storey car parks, with protective function as water protection and weathering protection by silicification as well as chloride protection. A hydrophobic substrate pre-treatment with KEIM Silan-100 or KEIM Silangrund can be applied to further enhance the water protection function. The combination with KEIM Silan 100 corresponds to "Protection Principle W" of Rili-SIB (Guidelines for the Protection and Repair of Concrete Structures, German Committee for Reinforced Concrete). Rigid hairline cracks can be closed in combination with KEIM Concretal-W-Grob. The application of KEIM Concretal-W-Grob is carried out as a primer or primer and intermediate coat for levelling structural differences and hairline cracks.

Not suitable for:
horizontal and inclined surfaces exposed to weathering

3. PRODUCT PROPERTIES

- mineral matt
- preserves the concrete surface structures
- Cradle to Cradle Certified®-Certificate Silver
- C2C Certified Material Health Certificate™ Gold
- highly permeable
- protects against ingress of water in liquid form
- protection against weather influences
- protection against chloride contamination
- corrosion protection
- fire behaviour: non-flammable (Class A2-s1,d0 as per EN 13501-1 acc. to classification report)

MATERIAL CHARACTERISTICS:

- | | |
|---|-------------------------------------|
| - Density: | approx. 1.5 - 1.8 g/cm ³ |
| - pH value: | approx. 11 |
| - Colour fastness (Fb-code pursuant to BFS Leaflet No. 26): | A1 |
| - Peel strength TNorm: | approx. 2,3 (1,4) N/mm ² |

CLASSIFICATION:

- | | |
|--|------------------------------|
| - Classification according to: | DIN EN 1504-2/2.2, 8.2 |
| - Diffusion-equivalent air layer thickness (sd-value): | ≤ 0,01 m |
| - Water absorption coefficient w: | < 0,1 kg/(m ² √h) |

COLOUR SHADES:

White and colour shades only with purely mineral, light-resistant pigments. Tinting only with KEIM Concretal-W full shades.

4. APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION:

The substrate must be dry, sound, clean and free of any loose material, dust, oil and other substances with a separating effect. Defective, organically bound existing coatings must be completely removed. In case of new concrete structures, any shuttering oil residues must be removed with KEIM Betonschnellreiniger (concrete cleaner). Clean, strong concrete requires no pretreatment. Highly absorbent substrates or surfaces exposed to severe weather may be provided with a water-repellent, hydrophobic treatment. The subsequent base coat with KEIM Concretal-W is to be applied after approx. 4 hours in the case of KEIM Silangrund and after 4 to 24 hours in the case of KEIM Silan-100. Soft, porous concrete surfaces or existing mineral coatings may be stabilised by performing a pretreatment with KEIM Concretal-Fixativ One or two primer coats with KEIM Concretal-W-Grob can be applied to equalise the structure and bridge rigid hairline cracks.

APPLICATION CONDITIONS:

Ambient and substrate temperature during application and drying from $\geq 5\text{ °C}$ to $\leq 30\text{ °C}$. Do not apply in direct sunlight or on sun-heated substrates. Protect surfaces from direct sun, wind and rain during and after application.

APPLICATION:

KEIM Concretal-W can be brushed, rolled or sprayed (nozzle ≥ 435).

Two-coat structure:

Primer coat: Apply KEIM Concretal-W undiluted or diluted with max. 10 % of Concretal-Fixativ.

Final coat: Apply KEIM Concretal-W undiluted.

Three coats:

Primer coat: 18 kg KEIM Concretal-W-Grob diluted with max. 10% KEIM Concretal-Fixativ.

Intermediate coat: 18 kg KEIM Concretal-W-Grob diluted with max. 5% KEIM Concretal-Fixativ.

Final coat: Apply KEIM Concretal-W undiluted.

Note: Before and during work, stir up the diluted KEIM Concretal-W and KEIM Concretal-W-Grob. Water or other materials must not be added.

DRYING TIME:

Can be overcoated after 12 hours at the earliest (at 23 °C and 50% RH). At higher relative humidity, layer thicknesses and/or lower temperatures, drying is delayed accordingly. After pre-treatment with KEIM Silangrund, the primer coat is to be applied after approx. 4 hours, after KEIM Silan 100 after approx. 4 - 24 hours.

CONSUMPTION:

approx. $0,20\text{ kg/m}^2$ for a single coating.

These material consumption values are guide values for smooth substrates. Exact consumption values must be determined by means of test areas.

DRY FILM THICKNESS:

approx. $125\text{ }\mu\text{m}$

with two coats on a smooth substrate

CLEANING OF TOOLS:

Clean immediately with water.

5. PACKAGING

Container content	Unit of measure	Quantity on pallet	Type of container
18	kg	32	bucket
5	kg	70	bucket

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6. STORAGE

max. storage time	Storage conditions
12 months	cool frost-free keep container tightly sealed.

7. DISPOSAL

For disposal information refer to section 13 of the safety data sheet.

EC WASTE CODE:

Waste code: 08 01 12

8. SAFETY INSTRUCTIONS

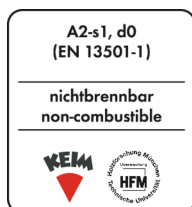
Please, refer to the Material Safety Data Sheet.

9. GENERAL INFORMATION

Cover surfaces not to be treated, especially glass, ceramics and natural stone. Any splashes on surrounding surfaces or traffic areas must be rinsed off immediately with plenty of water.

Mixing with products not part of the system or other foreign additives is not permitted.

10. CERTIFICATES & QUALITY SEALS



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 the purchaser and processor from the obligation to convince themselves of the suitability of our products for the intended application with due care, which is general practice in trade and crafts. The general rules of construction technology must be observed. We reserve the right to make modifications to improve the product or its application. This edition supersedes all earlier editions.