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 has been awarded Cradle to Cradle Certified® Full Scope Silver, Material Health Gold and Circularity Silver in accordance with Version 5.0.

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/KEIM Silan-Primer 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.

3. PRODUCT PROPERTIES

- Cradle to Cradle Certified® Full Scope Silver (Version 5.0)
- Cradle to Cradle Certified® Material Health Gold (Version 5.0)
- Cradle to Cradle Certified® Circularity Silver (Version 5.0)
- permeable
- protects against ingress of water in liquid form
- fire behaviour: non-flammable (Class A2-s1,d0 as per EN 13501-1 acc. to classification report)
- protection against weather influences
- protection against chloride contamination
- corrosion protection

MATERIAL CHARACTERISTICS:

– Density	approx. 1.5 g/cm³ - 1.8 g/cm³
– pH value	approx. 11
– Colour fastness (Fb-code pursuant to BFS Leaflet No. 26)	A1
– Abreißfestigkeit TNorm	approx. 2,3 (1,4) N/mm²

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/(m²√h)

COLOUR SHADES:
White and colour shades are produced exclusively with purely mineral, lightfast 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. In case of new concrete structures, any shuttering oil residues must be removed with KEIM Concretal-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 Silan-Primer 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.

Non-suitable substrates:
substrates with salt efflorescences; horizontal and inclined surfaces exposed to weathering; wood substrates; plasto-elastic coatings; saponifiable existing substrates; non-wettable substrates

APPLICATION CONDITIONS:
The air and substrate temperature must be between ≥ 5 °C and ≤ 30 °C during application and drying. Do not apply in direct sunlight or on substrates heated by the sun. Protect surfaces from direct sunlight, wind and rain during and after application.

CONSUMPTION:
approx. 0,35 kg/m² for two coatings.
The information on material consumption is a guide for smooth substrates. Exact consumption figures must be determined by carrying out test areas.

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

Two-coat structure:
Primer coat: Apply KEIM Concretal-W in the normal case undiluted or depending on the absorbency of the substrate, diluted up to max. 10 % with KEIM 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, greater layer thicknesses or lower temperatures, the drying time is extended accordingly. After pre-treatment with KEIM Silan-Primer, the primer coat is to be applied after approx. 4 hours, after KEIM Silan 100 after approx. 4 - 24 hours.

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

6. STORAGE

Maximum 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.

Waste code: 08 01 12

8. SAFETY INSTRUCTIONS

Refer to the safety data sheet. EU limit value for this product (Cat. A/a): 30 g/l; (Cat. A/c): 40 g/l.
This product contains: 0 - 2 g/l VOC.

GIS code: BSW 40

9. GENERAL INFORMATION

Cover surfaces not to be treated, particularly glass, ceramics and natural stone. Splashes on surrounding surfaces or traffic areas must be immediately diluted with plenty of water and removed.
Mixing with products from other systems or other external 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.

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