TECHNICAL DATA SHEET

KEIM OPTIL®

1. PRODUCT DESCRIPTION

KEIM Optil is a ready-to-use sol-silicate paint for interior use in accordance with DIN EN 13 300 (also meets the requirements of DIN 18363 section 2.4.1, dispersion silicate paint). KEIM Optil 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 Optil is suitable for all common interior wall and ceiling surfaces. Particularly suitableKEIM Optilfor demanding interior designs with special requirements in terms of colour intensity and appearance in representative architecture and / or difficult lighting conditions.

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)
- natureplus certified
- QNG compliant
- excellent covering power
- permeable
- fire behaviour: non-flammable (Class A2-s1,d0 as per EN 13501-1 acc. to classification report)
- scrub-resistant
- mould-resistant (resistant against fungal infestation, according to test certificate)
- no preservatives added

MATERIAL CHARACTERISTICS:

– Density	approx. 1.3 g/cm³ - 1.5 g/cm³
– Organic content	< 5 %
– pH value	approx. 11

CLASSIFICATION:

– Classification according to	EN 13300
– Classification according to VOB	Silicate emulsion paint according to DIN 18363 sec. 2.4.1
– Water vapour diffusion flux density (V-value)	> 2000 g/(m² · d)
– Diffusion-equivalent air layer thickness (sd value)	< 0,01 m
– Resistance to wet abrasion	R-Class 2
– Standard Wet Abrasion Resistance	EN ISO 11998
– Covering power (Contrast ratio)	H10-Class 1
– Yield of covering capacity (contrast ratio)	6 m²/L

– Standard Hiding power	ISO 6504-3
– Gloss level	G4 – dull matt (measuring angle 85°)
– Standard Gloss level	ISO 2813
– Maximum particle size	fine
– Standard Maximum particle size	EN 1524

COLOUR SHADES:
White and colour shades are produced exclusively with purely mineral, lightfast pigments. Monochrome shades 9001 O – 9012 O, 9018 O – 9021 O available.Note: The KEIM Optil-monochrome shade 9019 vermilion can only be produced with an organic pigment. The pigment type used has excellent lightfastness. Gold and silver without MacroFill technology. Tinting only with KEIM Optil-monochrome shades. For KEIM Optil we generally recommend factory tinting.

COMPOSITION
Full declaration in compliance with the "natureplus®" award guideline:
Silicate and calcite fillers, silica sol, water, titanium dioxide, polyacrylate, water repellent, thickener, wetting agent, defoamer, stabiliser. Origin of mineral fillers: Germany and/or Austria.

4. APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION:
The substrate must be load-bearing, sound, dry, clean and free from dust and grease. Coatings with KEIM Optil generally do not require any pre-treatment. Optimisation of the surface homogeneity of the subsequent coats, especially under difficult lighting conditions, can be achieved by pre-treatment with KEIM Soliprim. In case of glancing light conditions, ensure adequate substrate preparation, suitable tools and increased care during application.

Non-suitable substrates:
substrates with salt efflorescences; lacquered surfaces; wood substrates

APPLICATION CONDITIONS:
The air and substrate temperature during application and drying must be ≥ 5 °C.

MATERIAL PREPARATION:
KEIM Optil must be stirred thoroughly before application.

CONSUMPTION:
approx. 0,25 L/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 Optil can be painted, rolled or airless sprayed (nozzle ≥ 423).
Primer coat: Apply KEIM Optil undiluted or diluted with max. 10 % of water. Slurry primer coats are possible with KEIM Optil-Grob in the same shade.
Final coat: Apply KEIM Optil undiluted.

TOP COAT:

PAINT STRUCTURE:

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.

CLEANING OF TOOLS:
Clean immediately with water.

5. PACKAGING

Container content	Unit of measure	Quantity on pallet	Type of container
12.5	L	32	bucket
5	L	70	bucket

6. STORAGE

Maximum storage time	Storage conditions
12 months	cool frost-free keep container tightly sealed. protected from heat and direct sun.

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.
This product contains: 0 - 1 g/l VOC. The paint is formulated without the addition of preservatives. For medium and intense colours, traces of pot preservatives may be added to the paint.

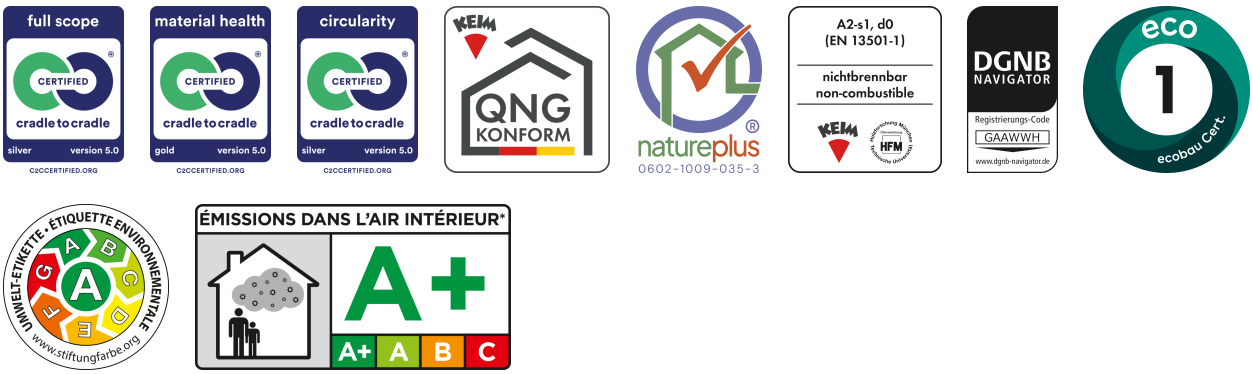
GIS code: BSW 10

9. GENERAL INFORMATION

Deviating wet abrasion resistance for the following shades:
Class 2 for white and the monochrome shades 9001 nickel-titanium yellow, 9002 ochre, 9003 oxide red, 9004 umbra, 9005 chrome green, 9006 ultramarine blue, 9007 oxide brown, 9008 black, 9009 cobalt blue, 9010 oxide red dark, 9012 cobalt green, 9019 vermilion, 9021 oxide black.
Class 3 for the monochrome shades 9011 oxide orange, 9018 bismuth yellow, 9020 turquoise.
The classification of non-combustibility class A2-s1, d0 does not apply to KEIM Optil monochrome shade 9019, shade Avantgarde 249 and their gradations.

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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