

KEIM Soldalit®

All-surface Exterior Mineral Sol-silicate Finish



1. Product description

KEIM Soldalit is a specialized, Sol-silicate exterior paint with an entirely new binder combination developed by KEIM which includes silica-sol and potassium silicate waterglass. This binder combination not only allows the application of silicate coatings on mineral substrates but also on a large variety of organic substrates, directly and without additional bridging/primer coats. KEIM Soldalit is a new generation of silicate paint, the **sol-silicate** paint, allowing a wide variety of applications.

KEIM Soldalit contains weather-resistant fillers and pure inorganic pigments. It combines all the advantages of the classical silicate paint with the ability to bond to a variety of substrates even most organic bound paint systems.

KEIM Soldalit as well meets the requirements of DIN 18.363, 2.4.1 „silicate emulsion paint“.

2. Field of application

KEIM Soldalit is typically a 2 or 3 coat system well suited for the renovation and coating of sound acrylic and silicone resin-based coatings, acrylic stucco, terracotta, brick, historic masonry and many other mineral substrates. Exceptions not suitable for coating with Soldalit are plasto-elastomeric coatings, saponifiable old paints (e.g. certain oil-based paints), non-wettable substrates (e.g. lacquers and varnishes).

Optional added water repellency can be added with a treatment of KEIM Silan-100 before the first coat of KEIM Soldalit.

Additional applications are as base and top coat followed by a low-pigmented finish (color wash effect) with the KEIM Design-Lasur system.

KEIM Soldalit is not suitable for horizontal and slightly inclined surfaces exposed to weathering or floor surfaces.

3. Product properties

- Sol-Silicate binder system
- All-surface application
- Anti-static - walls stay clean longer
- Pollution resistant
- Extreme weather resistance
- Non-flammable (acc. to DIN 4102-A2)
- Lightfast will not fade
- Mineral matt finish
- Water vapor permeable, microporous
- Non-film-forming will not peel
- Highly water-repellent
- No solvents and plasticizers
- Algae and fungi resistant

Material characteristics

- Specific weight: approx. 1.6 g/cm³
- VOCs (white or tinted)ASTM D6886: <1g/l
- Organic content: < 5%
- pH-value: approx. 11
- Lightfastness of color pigment: A1
(Fb-code acc. to BFS instruction sheet No. 26)
- Vapor Permeability ASTM E96: 77 Perms
- Accelerated weathering ASTM G154 2016 hours:
Pass - No change, no deterioration of any type
- Wind driven rain ASTM E514: Pass - No water leakage

According to Din EN 1062-1

- Water vapor diffusion density: $V \geq 2100 \text{ g}/(\text{m}^2 \cdot \text{d})$
- Diffusion-equivalent air layer thickness: $s_d \leq 0.01 \text{ m}$
to DIN EN ISO 7783-2 Class I



- Water permeability rate (24 h): $w < 0.1 \text{ kg}/(\text{m}^2 \cdot \text{h}^{0.5})$
to DIN EN 1062-3 Class III (< 0.1)
- Gloss at 85° to ISO 2813: matt 0.5

Color shades

White and the KEIM Palette Exclusiv and KEIM Avantgarde color swatches.

KEIM also offers custom matching to your color selection within our natural mineral range.

Please note

The mixing and blending with products not part of the system is not acceptable! This applies also for KEIM products which are not part of the Soldalit-System.

4. Application instructions

Substrate preparation

The substrate must be sound, solid, dry, clean and free of dust, grease, oils, salts, moss, algae and other substances that would prevent bonding. Old oil based coatings, loose substrate layers and loose organically bound coats must be removed. Repair damaged areas before painting.

For repaired substrates and also on substrates with textural differences or hairline cracks use KEIM Soldalit-Grob as the base coat instead of KEIM Soldalit.

Larger cracks or strong differences in texture may require a primer coat with KEIM Contact-Plus or KEIM Contact-Plus-Grob.

Before KEIM Soldalit or KEIM Soldalit-Grob is applied, highly absorbent substrates like terracotta or surfaces exposed to severe weather may be

treated with a water-repellent substrate treatment using KEIM Silan-100 to enhance waterproofing. A subsequent base coat of KEIM Soldalit or Soldalit-Grob must be applied after approx. 4 to 12 hours drying time for KEIM Silan-100.

Soft, porous surfaces or old existing mineral coats may be stabilized by pre-treatment with KEIM Soldalit-Dilution.

New mortar or masonry surfaces may require treatment with KEIM Lime Remover before painting if they have a sinter layer

Application

KEIM Soldalit is typically a 2 - 3 coat system applied by brush, roller or airless spraying (nozzle size: 0.65 mm/ 0.027 in.).

A minimum drying time of 12 hours between coats is required.

Two-coat-system:

Base coat: KEIM Soldalit or KEIM Soldalit-Grob diluted up to maximum of 10% (12.8 oz/gallon) with KEIM Soldalit-Dilution.

Finish/Top coat: KEIM Soldalit undiluted.

Three-coat-system:

Base coat: KEIM Soldalit or KEIM Soldalit-Grob diluted up to maximum of 10% (12.8 oz/gallon) with KEIM Soldalit-Dilution.

Intermediate coat: KEIM Soldalit or KEIM Soldalit-Grob diluted up to maximum of 5% (6.4 oz/gallon) with KEIM Soldalit-Dilution.

Finish/Top coat: KEIM Soldalit undiluted.

Stir diluted KEIM Soldalit and KEIM Soldalit-Grob before and during application. Neither water nor any other materials may be added. For the finish



coat it is important to work swiftly wet-in-wet maintaining a wet edge. Work corner to corner or use an architectural feature as a starting and stopping point.

Recommendation: In case of repairs after the main coating application. Touch-up with undiluted material using a roller offers the best results.

Application conditions

From 41°F up to max. 86°F (+5°C - 30°C) air and substrate temperature; up to max. 80% relative humidity.

Only apply in dry weather conditions. Do not apply under direct sun or on sun-heated substrates or in strong wind. After application, surfaces must be protected from strong wind and direct sun until dry (3-6 hours) and from rain until they are cured (12-36 hours). Times depend on temperature and humidity.

Drying times

Dry to touch in 1-3 hours.

For recoating, at least 12 hours between coats.

For the finish coat, allow 12-36 hours.

If a pretreatment of water repellencies was applied allow drying before base coat is applied. Approx. 4 - 12 hours after KEIM Silan-100.

Consumption

The stated consumption figures are guide values for a smooth substrate. Exact values can only be determined by painting test areas on the structure to be coated using tools and techniques that will be used for the final application.

KEIM Soldalit

300 - 350 sq.ft./gallon

Cleaning of tools

Clean immediately after use with water.

5. Packaging

1 gallon

and

4 gallon (packaged in a 5 gal pail)

6. Storage

Shelf life approx. 12 months, if kept cool, but frost-free in tightly closed unopened containers.

Note: Remnants of material from opened containers should be filled in smaller buckets in order to maintain the air content in the bucket at the lowest possible level.

7. Hazardous substances ordinance class

n/a

Classification according to flammable liquids ordinance

n/a

8. Transport hazard class

n/a

9. Disposal

EC Waste Code No. 08 01 12

Any residues must be emptied out of containers before recycling.



10. Safety instructions

Provide appropriate protection for surfaces which are not to be coated (e.g. glass, natural stone, ceramics etc.). Any splashes on surrounding surfaces or traffic areas must be rinsed off immediately with plenty of water. Protect the eyes and skin from splashes. Keep out of reach of children.

Product code: M-SK 01

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 editions.

