

KEIM Granital®

Silicate coating system for exteriors compliant with DIN 18 363 2.4.1



1. Product description

KEIM Granital is a water-repellent, ready-to-apply silicate based exterior paint in accordance with VOB/C DIN 18 363 2.4.1 (silicate emulsion paint) with absolutely lightfast inorganic pigments and mineral fillers.

2. Field of application

KEIM Granital may be used on any mineral substrate. Due to its outstanding product characteristics, KEIM Granital is particularly suitable both for the renovation of old surfaces and in new construction.

This product may be used in conjunction with the other products of the coordinated KEIM Granital system to meet the most varied requirements.

3. Product properties

KEIM Granital is a proven extremely long-life exterior silicate based paint with a modified potassium silicate binder. KEIM Granital has excellent hiding power, is non-yellowing and contains only absolutely lightfast inorganic coloring pigments. KEIM Granital protects mineral substrates from strong weathering loads and also from acidic atmospheres.

- Non-film-forming
- Mineral matt finish
- Non-flammable (DIN 4102-A2 & ASTM E84)
- Heat-resistant, anti-static
- Lightfast
- UV-resistant in all components
- Excellent weathering resistance
- Resistant to industrial fumes and acid rain

- Highly water-repellent
- Extremely vapor permeable
- Hinders fungal and algal growth
- Environmentally friendly – neither solvents nor pot preservatives added
- Easily applied
- Particularly economic in terms of consumption

Material characteristics

- Specific weight: approx. 1.45 g/cm²
- Light fastness of color pigments: B1
(Fb-Code acc. to BFS technical bulletin No. 26)

according to DIN EN 1062-1

- Water vapor diffusion density: $V \geq 2000 \text{ g}/(\text{m}^2 \cdot \text{d})$
- Diffusion-equivalent air layer thickness: $sd \leq 0.01 \text{ m}$
(Dry film thickness approx. 236 μm)
class I
as per DIN EN ISO 7783-2
- Water permeability rate (24 h): $w < 0.1 \text{ kg}/(\text{m}^2 \cdot \text{h}^{0.5})$
(Dry film thickness approx. 338 μm)
class III (< 0.1)
according to DIN EN 1062-3
- Gloss at 85°: 1.5
(Dry film thickness approx. 100 μm)
matt (<10)
according to DIN EN ISO 2813

VOC's <1g/l
ASTM E96 Water Vapor Transmission: 83 Perms
ASTM G154 Accelerated weathering 2016 hr:
No change, no deterioration of any type.
ASTM E514 Wind driven rain: No water leakage.



Color shade

White and also according to KEIM Palette Exclusiv. Tint only with KEIM Color Concentrates.

4. Application instructions**Substrate preparation**

The substrate must be sound, dry, absorbent, clean and free from dust and grease. Loose areas, dirt, oily substances, moss and algae must be completely removed. Existing film-forming coatings which impede vapor diffusion and/or are not sound must be removed with the paint stripper KEIM Bio Stripper or by mechanical means. Sound existing organic coatings must be primed with KEIM Contact-Plus as bridging coat. Not suitable are plasto-elastic old coatings or coatings susceptible to saponification.

In the case of highly absorbent or sanding substrates, pre-treatment with KEIM Fixativ, diluted 1:1 or 1:2 with water or with undiluted KEIM Spezial-Fixativ (Dilution) is recommended.

Any sinter layers on new renders should be removed with KEIM Lime Remover (Ätzflüssigkeit) according to the manufacturer's instructions. New areas of render and repairs should generally be treated with KEIM Lime Remover (Ätzflüssigkeit) as specified in the Technical Data Sheet.

Pre-treatment with KEIM Silan-100 is recommended for surfaces exposed to severe moisture or weathering.

Application

KEIM Granital may be applied by brush, roller or airless spraying (nozzle size 0.79 mm/0.031 in.). Roller or brush application is recommended for priming coats.

Base coat:

KEIM Granital diluted, depending on absorbency of substrate, with up to max. 20% KEIM Fixativ or KEIM Spezial-Fixativ (Dilution) (25 kg paint plus max. 5 l dilution)

Top coat:

KEIM Granital, undiluted

KEIM Granital-Grob is used as a priming coat to equalize differences in texture and/or to fill small hairline cracks.

In the case of major differences in texture and/or numerous hairline cracks, KEIM Contact-Plus should be used as the primer.

If the surface is to be subjected to very severe stresses, it is recommended to apply a three-coat system.

KEIM Spezial-Fixativ is recommended as a dilution on difficult, poor and/or variably absorbent substrates.

Application conditions

Ambient and substrate temperature must be $> +5^{\circ}\text{C}$ (41°F). Do not apply in direct sunlight or onto sun-heated substrates. Protect coated surfaces from direct sunlight, wind and rain during and after application.

Drying times

A drying time of at least 12 hours must be left between coats. In the case of pretreatment with KEIM Silan-100, the priming coat should be applied after approx. 4 hours.

Consumption

For two coats of KEIM Granital onto a smooth substrate per m^2 (10.8 sq ft):



approx. 0.35 kg KEIM Granital
approx. 0.03 l (1 fl oz) KEIM Fixativ
or KEIM Spezial-Fixativ (Dilution).

The stated consumption values are for guidance and depend on the nature of the substrate and the application method. Exact consumption values can only be determined by painting trial areas on the structure to be coated.

Cleaning of tools

Clean with plenty of water immediately after use. During breaks, store tools in the paint or in water.

Third-party additives

In order to preserve the specific characteristics of the Granital system, no other substances may be added.

5. Packaging

5 kg and 25 kg containers

6. Storage

Storage life is approx. 12 months in a sealed container under cool, but frost-free conditions. Protect from heat and direct sunlight.

7. Hazardous substances ordinance class

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; wood 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.

