

## KEIM Royalan®-Grob

Coarse textured variant of KEIM Royalan for base and intermediate coats



### 1. Product description

KEIM Royalan-Grob is a coarse textured filling, potassium silicate tinted priming paint for the base and intermediate coats within the Royalan System.

The Royalan system forms a chemical bond with the mineral substrate offers water repellency, and high vapor permeability. KEIM Royalan-Grob is made using pure inorganic mineral fillers, lightfast inorganic pigments, additives, potassium silicate binder and glass fibers.

### 2. Field of application

KEIM Royalan-Grob serves as a base and intermediate coat within the KEIM Royalan system. In certain cases KEIM Royalan-Grob can be used as a bridging coat on previously painted surfaces where most but not all of the old coating can be removed. It can also be used to fill non-moving hairline cracks up to 0.3 mm and equalize different textures on the facade. KEIM Royalan-Grob is particularly suitable for old historic and new surfaces. Ideal absorbent surfaces include but are not limited to, brick, stucco, historic masonry, stone, lime plasters, mortars, CMU, GFRC, cement boards and renders. In combination with products from the KEIM Royalan system a wide variety of application areas are possible. KEIM Royalan-Grob cannot be used as a finish coat.

Exceptions not suitable for coating with KEIM Royalan-Grob are resin based coatings, plast-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 Royalan-Grob.

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

### 3. Product properties

KEIM Royalan-Grob is a long life exterior silicate-based paint with a modified potassium silicate binder. KEIM Royalan-Grob has excellent hiding power and filling capacity.

- Excellent protection for extreme climatic conditions
- Highly water vapor permeable
- Resists mold and fungal growth
- Easy to overcoat
- Non-flammable
- Non-film-forming
- Mineral matt finish
- All components UV-resistant
- High resistance to weathering
- Resistant to industrial pollution and acid rain
- Water repellent
- No solvents
- Easy application

#### Material characteristics

- Specific weight 1.6 g/cm<sup>3</sup>
- VOCs (white or tinted) ASTM D6886: <1g/l
- Vapor diffusion equivalent air layer thickness:  $s_d = 0.01 \text{ m}$
- Water vapor transmission rate:  
 $V = 2100 \text{ (g/m}^2\text{d)}$
- Vapor permeability ASTM E96 80 - 85 perms



- Thermal Expansion: comparable to the mineral substrate to which it is applied.
- Flash point: non-flammable will not burn

### Color Shades

White and tinted according to KEIM Royalan finish coat. As a base and intermediate coat it is always tinted approx. 2 shades lighter than the finish coat.

## 4. Application instructions

### Substrate Preparation

The substrate must be sound, solid, dry, absorbent, 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 organically bound coats must be removed. Repair damaged areas before painting.

For repaired substrates and also on substrates with textural differences or hairline cracks up to 0.3mm KEIM Royalan-Grob is ideal as a base coat.

Larger cracks 0.3 – 0.9mm or strong differences in texture may require a primer coat with KEIM Contact-Plus (0.3 – 0.5mm) or KEIM Contact-Plus-Grob (0.5 – 0.9mm).

Before KEIM Royalan-Grob is applied, highly absorbent substrates 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 Royalan or Royalan-Grob must be applied after approx. 4 to 12 hours drying time for KEIM Silan-100.

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

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

Surface contaminants should be entirely removed by suitable mechanical and/or chemical means. Old, film-forming coatings which may hinder the vapor diffusion and/or which are not well adhering must be removed with KEIM Bio Stripper (paint stripper) or by mechanical means.

Well adhering organic old coatings that will remain on the surface must be coated with KEIM Contact-Plus as primer coat prior to subsequent applications of or KEIM Royalan-Grob and KEIM Royalan.

Very soft old sanding substrates may be consolidated first with a treatment of KEIM Fixativ.

### Application

KEIM Royalan-Grob is typically 1 or 2 coats as part of the KEIM Royalan system. Apply by brush, roller or airless spraying (nozzle size 0.94 mm/0.037 in.). Application by brush is best for crack filling as material can be worked into all surfaces well.

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

Base coat: KEIM Royalan-Grob diluted up to maximum of 20% (25.6 oz/gallon) with KEIM Royalan-Dilution.

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



KEIM Royalan-Grob must always be over coated with 1 - 2 coats of KEIM Royalan.

Stir diluted KEIM Royalan-Grob before and during application. Neither water nor any other materials may be added. It is important to work wet-in-wet maintaining a wet edge. Work corner to corner or use an architectural feature as a starting and stopping point.

### Application conditions

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

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.

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 Royalan-Grob  
250 - 300 sq.ft./gallon

### Tools

Clean immediately after use with water.

### Mixing with other products

In order to maintain the specific features of KEIM Royalan and the related system products, they may not be mixed with other products or additives nor may they be diluted 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

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S 26: Avoid release to environment. Refer to special instructions/safety data sheets.

## 8. Transport hazard class

n/a

## 9. Disposal

EC Waste code No. 08 01 11

Dispose of completely emptied containers in accordance with local, state and federal regulations.



## 10. Safety instructions

KEIM Royalan-Grob is alkaline. Cover areas which are not to be coated, especially glass, ceramics and natural stone. Any splashes on surrounding surfaces or traffic areas must be rinsed off immediately with plenty of water. Protect the eyes and skin from splashes of paint. Do not swallow. Keep out of reach of children.

Refer to the relevant safety data sheets.

This product is only intended for the sale to and the application by professional applicators. The application instructions as well as the labeling are to be adhered to. The recommendation values and characteristics stated are the result of intensive development work and practical experience. Our verbal and/or written recommendations regarding the use and application of our products are to assist in the choice of our products and are not the basis of a contractual and/or legal relationship. They do not release the purchaser and/or applicator from the obligation to verify the suitability of our products for the intended application with due diligence. The prevailing general rules of building technology are to be respected. KEIMFARBEN GmbH & Co. KG has adopted a policy of constant product development. Modifications serving the improvement of the product or its application are reserved. This edition supersedes all earlier editions.

