



1. Product information

KEIM Royalan is a ready-to-use mineral silicate paint system for facades according to EN 1062-1 for use in subtropic/tropic conditions. It offers water repellency, high vapor permeability and forms a chemical bond with the mineral substrate. KEIM Royalan is made using pure inorganic mineral fillers, absolutely lightfast inorganic pigments, additives and potassium silicate binder.

2. Field of application

KEIM Royalan can be used for all mineral, absorbent substrates. Due to its outstanding product characteristics, KEIM Royalan is suitable for old and new facades. In combination with the products of the KEIM Royalan system various application areas are possible.

3. Product properties

KEIM Royalan is a longlife exterior silicate-based paint with a modified potassium silicate binder. KEIM Royalan has a high coverage and contains only absolutely lightfast inorganic pigments. KEIM Royalan protects the substrates from environmental influences.

- Water vapour permeable
- Lightfast
- Easy to clean
- Easy to overpaint
- Non-flammable
- Non film-forming
- Mineral matt
- All components UV resistant
- High resistance to weathering
- Resistant against industrial fumes and acid rain
- Water repellent
- No solvents added
- Ease of application
- Resists extreme climatic conditions
- Hinders mould and fungal growth under certain conditions

Material characteristics

- specific weight: approx. 1.45 g/cm³
- pH-value: approx. 11
- lightfastness of colour: A1
(Fb-Code acc. to BFS-instruction sheet No. 26)

Classification to DIN EN 1062-1

(details see certificate FPL.)

- water vapour

transmission rate:	$V > 1500 \text{ g/m}^2\text{d}$
diffusion equivalent	
airlayer thickness:	$s_d = 0.01 \text{ m}$
	Class I ($s_d < 0.14$)
	<small>to DIN EN ISO 7783-2</small>
- liquid water permeability

rate (24 h):	$w = 0.12 \text{ kg/m}^2\text{h}^{0.5}$
	<small>to DIN EN 1062-3</small>
- gloss at 85°:

	0.5
	matt (≤ 10)
	<small>to DIN EN ISO 2813</small>

Colour Shades

White and according to the KEIM Palette Exclusiv with specials available. On-site tinting only with Royalan tinting concentrates.

4. Application

Substrate Preparation:

The substrate must be sound, dry, absorbent, clean, dust- and grease-free. Loose and brittle parts, dirt, oily and greasy materials, moss, algae and other surface contaminants are to 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 are to be removed with KEIM Dispersionsentferner or by mechanical means. Well adhering organic old coatings are to be coated with KEIM Contact-Plus as bridging coat prior to subsequent applications of KEIM Royalan or KEIM Royalan-Grob. Not suitable are plasto-elastic old coatings or coatings and substrates susceptible to saponification.

For strongly absorbent or sanding substrates a pretreatment with KEIM Royalan-Dilution, undiluted, is recommended. Possibly existing sinter layers on new renders are to be removed with KEIM Ätzflüssigkeit (Lime remover) according to manufacturers instructions. (Partial) render repairs are generally to be treated with KEIM Ätzflüssigkeit (Lime remover) acc. to the prescriptions in the technical data sheet.

Before coating areas subject to strong weathering or environmental stress a pretreatment with KEIM Silan-100 or KEIM Silangrund is recommended.

Application

KEIM Royalan should be applied as a two coat process onto unpainted surfaces, and applied by brush or roller, working well into all surfaces.



Base coat

KEIM Royalan, diluted by, depending on the absorbency of the substrate, up to 20% with KEIM Royalan-Dilution (25 kg and max. 5 l Dilution).

Top coat

KEIM Royalan, undiluted or with up to 5 % with KEIM Royalan Dilution, after a minimum drying period of 12 hours.

To equalise structural differences and/or to cover small hairline cracks (≤ 0.2 mm), KEIM Royalan-Grob is to be used. When larger structural differences and/or numerous hairline cracks (≤ 0.5 mm) exist, KEIM Contact-Plus, applied by brush, should be used as base coat.

Please note that under certain conditions a three-layer system may be required. Further information upon detailed request available.

Working conditions

Air and surface temperature: $> 5^{\circ}\text{C}$

Do not apply under direct sun or on heated surfaces. Substrates should be protected during and after application from direct sun, wind and rain.

Drying times

A drying time of 12 hours minimum is to be respected between the different coats of KEIM Royalan and/or KEIM Royalan-Grob and/or KEIM Contact-Plus. After a pretreatment with KEIM Silangrund the first coat should be applied after approximately 4 hours.

Consumption per 1 m²

For two coats onto a smooth surface approx. 0.4 kg KEIM Royalan and 0.05 l KEIM Royalan-Dilution. These consumption figures are typical values and strongly depend upon the texture of the substrate as well as on the application procedure. Exact consumption ratios may only be defined by trial applications on the project.

Tools

Clean immediately after use with water.

During work pauses the tools should be kept in the product or in 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

5 kg and 25 kg containers

6. Storage

Approx. 12 months, if kept cool, but frost free in tightly closed containers. Protect from heat and direct sun radiation.

7. Hazardous substances ordinance class

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

S61: Avoid release to environment. Refer to special instructions/safety data sheets.

8. Transport hazard class

Not applicable

9. Disposal

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

10. Safety instructions

All areas which are not to be coated with KEIM Royalan i.e. glass, natural stone, ceramics, wood, etc., are to be protected by suitable measures. Splashes on these or traffic and other surrounding areas must be removed immediately with plenty of water.

Protect eyes and skin from splashes. Do not swallow. Keep out of the reach of children.

Refer to the relevant safety data sheets. Contains Propiconazole. May produce an allergic reaction.

This product is only intended for the sale to and the application by professional applicators. The application instructions as well as the labelling 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.

