



TECHNICAL DATA SHEET

KEIM PURKRISTALAT®

1. PRODUCT DESCRIPTION

KEIM Purkristalat is a two-component paint according to VOB/C DIN 18363 Para. 2.4.1 (silicate paint), for facade coatings of highest durability and colour brilliance. KEIM Purkristalat consists of a colour powder component and a liquid water glass component (fixative) as binder. KEIM Purkristalat produces weather-resistant coatings that last for decades. KEIM Purkristalat uniquely combines the mineral matt surface appearance typical of historical buildings with luminous colour brilliance. KEIM Pure mineral colour powder with absolutely lightfast, inorganic pigments and reactive mineral flours. KEIM Fixative Pure mineral, silicate binder for KEIM Purkristalat (5 kg colour powder and 4 l fixative yield approx. 10 kg of absorbed colour). Thinner for the soaked KEIM Purkristalat. For pre-fixing on highly absorbent substrates (diluted with water, e.g. in a ratio of 1:1). Mixed with water in a ratio of 1:1 as a thinner for the soaked-in Purkristalatfarbe for the production of purely mineral glazes and for the post-fixation of insufficiently bonded silicate coatings. KEIM Purkristalat is awarded with Cradle to Cradle Certified® Silver and C2C Certified Material Health Certificate™ Gold.

2. FIELD OF APPLICATION

KEIM Purkristalat can be used on mineral, porous and mechanically stable substrates, especially on plasters. The top layer of plaster must have a minimum thickness of 5 mm. Light plasters are not suitable. KEIM Purkristalat is particularly suitable for the renovation of historical buildings and for use in building projects with special demands on durability and colour brilliance. In combination with the precisely coordinated product components of the KEIM Purkristalat system, a wide range of application variations are possible.

Not suitable for:
horizontal and inclined surfaces exposed to weathering

3. PRODUCT PROPERTIES

- silicifies insolubly with the substrate
- non-film forming
- mineral matt
- environmentally friendly
- Cradle to Cradle Certified®-Certificate Silver
- C2C Certified Material Health Certificate™ Gold
- highly permeable
- absolutely lightfast
- absolutely UV-resistant
- antistatic, non-thermoplastic
- inswellable
- solvent-resistant
- resistant against industrial emissions
- unequalled colour stable
- unequalled long-lasting
- scrub-resistant
- fire behaviour: non-flammable (Class A1 as per EN 13501-1 acc. to classification report)
- no biocides added
- no plasticisers added
- no solvents added
- titanium dioxide-free

MATERIAL CHARACTERISTICS:

- Density: Colour powder tamped density: 0.6–0.8 g/cbcm / Fixative density: 1.1-1.2 g/cbcm
- Colour fastness (Fb-code pursuant to BFS Leaflet No. 26): A1

CLASSIFICATION:

- Classification according to VOB: Silicate paint according to DIN 18363 sec. 2.4.1
- Diffusion-equivalent air layer thickness (sd-value): ≤ 0,01 m
- Diffusion-equivalent air layer thickness class: V1
- Test standard Diffusion equivalent air layer thickness: DIN EN ISO 7783
- Gloss level at 85°: matt
- Test standard Gloss level: ISO 2813

COLOUR SHADES:

White, colour shades only with purely mineral, light-resistant pigments. monochrome shades 9001 to 9010 available.

4. APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION:

The substrate must be strong, dry, clean, sound and free from adhesion-reducing residues. Old, film-forming coatings have to be completely removed with KEIM Dispersionsentferner (paint stripper). New render areas must be pretreated with KEIM Ätzflüssigkeit (lime remover) as specified in the Technical Data Sheet to remove sinter layers. A pretreatment with KEIM Fixativ is recommended for highly absorbent or sanding substrates. Please, refer to the Technical Data Sheet regarding application. Algae, fungi or lichens must be removed professionally, thoroughly and without residues. After cleaning and drying of the surface, KEIM Algicid-Plus is used for disinfection. After a reaction time of at least 24 hours, the treated disinfected surface can be refinished.

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APPLICATION CONDITIONS:

Ambient and substrate temperature ≥ 5 °C during application and drying. Do not apply in direct sunlight or on sun-heated substrates. Protect surfaces from direct sun, wind and rain during and after application.

PREPARATION OF MATERIAL:

Soaking: In 4 l KEIM Fixativ soak 5 kg KEIM Purkristalat-colour powder and mix until homogenous. This mixture yields approx. 10 kg of ready-to-apply paint for the final coat. Soaking one day beforehand results in better homogeneity and higher yield (lower consumption!). For priming and intermediate coats, the soaked paint is diluted with KEIM Fixativ according to the instructions and, if necessary, the slurry additive KEIM KristallFelsit is added.

APPLICATION:

KEIM Purkristalat application wet-on-wet, preferably brush-applied or spray-applied with low-pressure equipment (e.g. KEIM facade spraying unit).

COATING SYSTEM:

The coating structure depends on the specific conditions on the object or substrate.

- Normally stressed, mineral substrates:

Primer coat: 10 kg KEIM Purkristalat soaked + 2-6 l KEIM Fixativ. In the case of a few, fine hairline cracks, add an additional 5 kg of KEIM Kristall-Felsit (crystalline felsite) to the primer coat.

Final coat: KEIM Purkristalat soaked, undiluted

- In case of heavier use:

Primer coat: 10 kg KEIM Purkristalat soaked + 4-8 l KEIM Fixativ. In the case of a few, fine hairline cracks, add an additional 5 kg of KEIM Kristall-Felsit (crystalline felsite) to the primer coat.

Intermediate coat: 10 kg KEIM Purkristalat soaked + 2-4 l KEIM Fixativ

final coat: KEIM Purkristalat soaked, undiluted

- Substrate with hairline cracks and/or structural differences:

Primer coat: 10 kg KEIM Purkristalat soaked + 5 kg KEIM KristallFelsit + 2-6 l KEIM Fixativ

Intermediate coat: 10 kg KEIM Purkristalat soaked + 5 kg KEIM KristallFelsit + 2-4 l KEIM Fixativ

Final coat: KEIM Purkristalat soaked, undiluted

- Substrate with non-movable cracks up to 0.5 mm wide and/or stronger structural differences:

Primer coat: 10 kg KEIM Purkristalat soaked + 10 kg KEIM KristallFelsit + 2-6 l KEIM Fixativ

intermediate coat: 10 kg KEIM Purkristalat soaked + 5 kg KEIM KristallFelsit + 2-4 l KEIM Fixativ

Final coat: KEIM Purkristalat soaked, undiluted.

- For maximum slurry effect on critical unevenly absorbent substrates:

Primer coat: KEIM Kristall-Felsit (Mixing ratio 25 kg Kristall-Felsit 4 litres KEIM Fixativ).

Intermediate coat: KEIM Purkristalat soaked + 2 litres KEIM Fixativ .

Final coat: KEIM Purkristalat soaked, undiluted.

AFTERTREATMENT:

In the case of facade areas exposed to heavy rainfall, e.g. on towers or structurally poorly protected weather sides, it is recommended to apply a clear water repellent coat of KEIM Lotexan or KEIM Ecotec after the final coat:

– KEIM Lotexan, apply twice wet-on-wet over the entire surface no earlier than 8 days after the final coat

– KEIM Ecotec, apply over the entire surface no earlier than 3 days after the final coat.

DRYING TIME:

Can be overcoated after 24 hours at the earliest (at 23 °C and 50% RH). At higher relative humidity, layer thicknesses and/or lower temperatures, drying is delayed accordingly.

CONSUMPTION:

- For two coats of KEIM Purkristalat:

approx. 0.35 kg/m² KEIM Purkristalat colour powder and approx. 0.40 l/m² KEIM Fixativ.

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- for two coats with 50% crystalline felsite additive in the base coat:
approx. 0.30 kg/m² KEIM Purkristalat colour powder, approx. 0.10 kg/m² KEIM Kristall-Felsit and approx. 0.40 l/m² KEIM Fixativ.
- for KEIM Kristall-Felsit as primer coat:
approx. 0.5 kg/m².

These material consumption values are guide values for smooth substrates. Exact consumption values must be determined by means of test areas.

CLEANING OF TOOLS:

Clean immediately with water.

5. PACKAGING

Container content	Unit of measure	Quantity on pallet	Type of container
30	kg	30	bag
5	kg	120	bag

6. STORAGE

max. storage time	Storage conditions
unlimited storage time	dry
12 months	cool frost-free keep container tightly sealed.

STORAGE INFORMATION:

(Unlimited shelf life and dry applies to the colour powder component /12 months and frost-proof applies to KEIM Fixativ).

7. DISPOSAL

For disposal information refer to section 13 of the safety data sheet.

EC WASTE CODE:

Waste code: 08 01 11 *

8. SAFETY INSTRUCTIONS

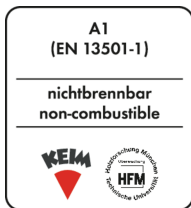
Please, refer to the Material Safety Data Sheet.

9. GENERAL INFORMATION

Cover surfaces not to be treated, especially glass, ceramics and natural stone. Any splashes on surrounding surfaces or traffic areas must be rinsed off immediately with plenty of water.

Mixing with products not part of the system or other foreign 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.