

KEIM Purkristalat®

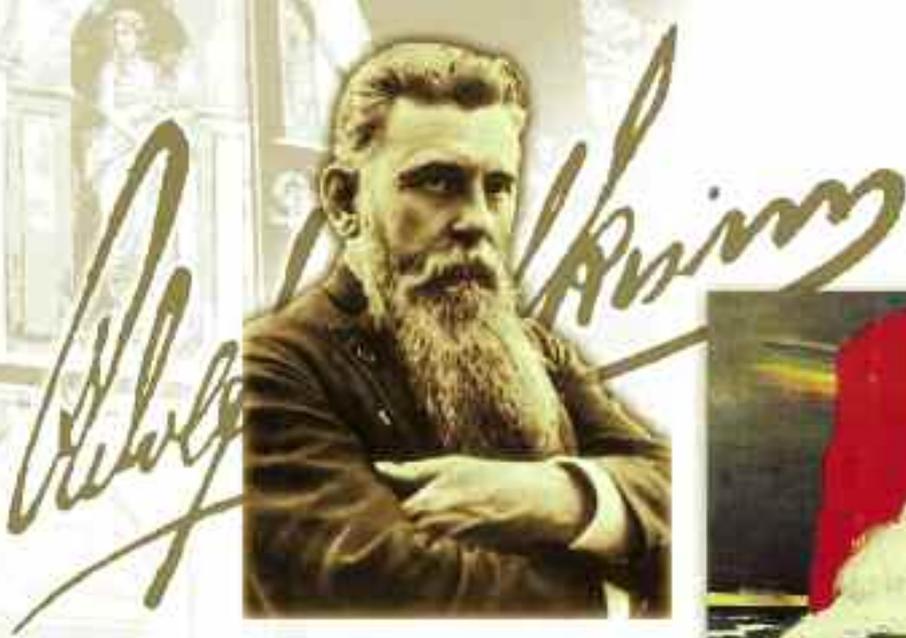


The Original.
Unrivalled service life and colour brilliance
for historical and modern
facades.

Approved!

PREMIUM
is our Standard.





„It is my endeavour to always pass on the creations of the artists in unchanged magnificence and beauty to coming generations as eloquent witnesses of the appreciation of art of the respective period“

Adolf Wilhelm Keim,
pioneer of silicate coating systems, 1881



Creating what is beautiful, protecting what is worthy, maintaining what is valuable – with KEIM Purkristalat

Dedicated monument preservation – historical and technical challenge

Anyone who comprehends the past as the key to present and future is aware of the significance of the preservation of historical structures. The preservation of the architectonic legacy of our fathers for our children is the uppermost concern of dedicated monument preservation and a great challenge to all involved. Sensitivity for the original intentions of the building owners, architects, sculptors and painters, combined with the know-how for technically viable solutions in the service of maintenance and conservation – this is the basis of responsible monument preservation. It goes without saying that particularly in the field of the design and renovation of historical facades, the materials used must fulfil the most demanding quality requirements.

KEIM Purkristalat – luminous facades for decades

Developed in 1878 by Adolf Wilhelm Keim, the founder of silicate coating systems, KEIM Purkristalat has now been setting standards in durability and colour

brilliance for more than 130 years. Predominantly located in historical architectural protection, KEIM Purkristalat belongs to the preferred repertoires of conservators and restorers.

KEIM Purkristalat obtains its unique quality from the perfect balance of its high-grade, exclusively mineral ingredients: inorganic, lightfast pigments, selected materials as fillers and pure liquid potassium silicate as the binding agent.

The “original of silicate paints” owes its legendary reputation to the innumerable objects all over the world that for generations have impressively demonstrated what makes KEIM Purkristalat so unique: Radiance and vitality even after decades – facades that age with dignity.



**KEIM Purkristalat -
modern architecture
also deserves
top quality**

What has proven itself in the renovation of historical structures for more than 100 years is becoming increasingly popular in top-quality new buildings.

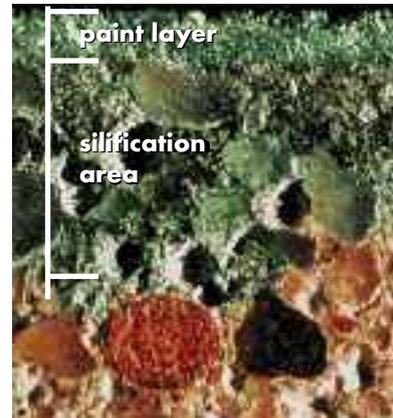
The incomparable appearance of KEIM Purkristalat paints - brilliant colour designs that visually revive substrates - gives a new individual character, particularly to architectonically demanding new buildings. From a building design aspect, KEIM Purkristalat is extremely diffusible and also scores in the long run with regard to economy as an ideal paint with extreme durability.

*Right illustration:
Weesenstein castle,
near Dohna*

*Top left illustration:
Diozesan archive,
Eichstätt*

*Bottom left illustration:
Castello*





Extreme durability and brilliant radiance – KEIM Purkristalat outlasts generations

Unrivalled durability due to the permanent bond between paint and substrate

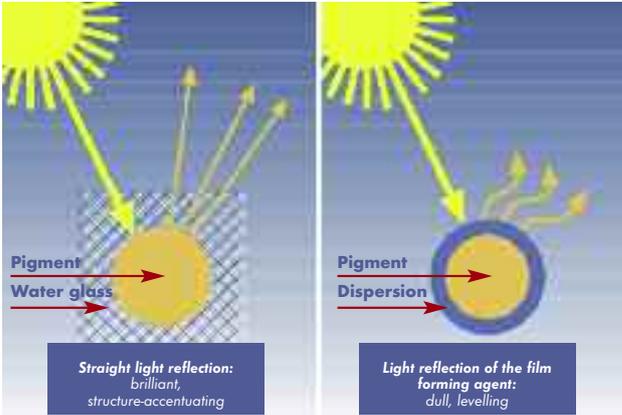
KEIM Purkristalat, the pure silicate paint acc. to DIN 18 363 para. 2.4.1, remains bonded with the substrate over decades: The silicate binder water glass penetrates deep into the mineral substrate, where it reacts chemically. This process, also referred to as "silification", leads to a non-releasable connection between paint and coating substrate. This connection is minerally sound and extremely durable. The purely mineral materials in KEIM Purkristalat are absolutely resistant to aggressive environmental influences such as acid rain and UV radiation. At the same time the substrate is stabilised by the absorption of the binding agent water glass, thus becoming increasingly resistant. KEIM Purkristalat paints are extremely water vapour diffusible thanks to their micro-porous structure and are therefore predestined for historical masonry. Moisture can be diffused out without obstruction; damage caused by water is prevented. Due to the purely

mineral composition and the chemical connection principle, KEIM Purkristalat is a guarantor of beautiful facades for decades. By the way: The aging behaviour of KEIM Purkristalat does justice to the high demand. The surface is evenly and naturally decomposed over decades due to so-called micro-chalking - dignified aging, technically and visually.

Left illustration: Schleißheim castle, Unterschleißheim

Top right illustration: Residential house, Lucerne

Bottom right illustration: The enlarged plaster cross-section shows the so-called silification zone underneath the layer of paint. The binding agent water glass (KEIM Fixativ) penetrates into the substrate and is indissolubly interlinked.



**Fascinating colour
brilliance due to the
purely inorganic
binding agent**

KEIM Purkristalat not only owes its legendary durability to the binding agent water glass, but also its captivating appearance.

The clear, purely inorganic binder enables the light beams to directly meet the pigment particles unhindered and to reflect from there. This unhindered light reflection causes KEIM Purkristalat coatings to actually shine. The naturalness of the dull mineral surface, combined with the brilliant radiance of bright pigments gives KEIM Purkristalat coatings an incomparable appearance – lively and fascinating. The high degree of light reflection also supports the individual character of the building – originalities and special features of the building are not simply “painted over” but enhanced, thus being highlighted to their best advantage. By the way: The high degree of light reflection is also valuable with regard to building physics, because the thermal load of the building is substantially reduced. As far as

design is concerned, KEIM Purkristalat leaves nothing to be wished for, can be processed as opaque or translucent coating and ideally supports the effect of individual traditional techniques such as graining or marbling.

KEIM Purkristalat – the original for highest demands.

*Top left illustration:
Doeckerhaus,
Stuttgart*

*Top right illustration:
Prettlack Garden
House, Darmstadt*

*Top diagram:
Schematic diagram
of the light reflection
in comparison:
Left: Silicate paint,
right: Dispersion
paint*

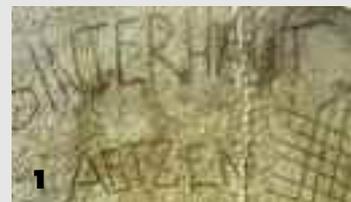


Application

Preparation

No preliminary work is necessary for clean, absorbent and sufficiently firm substrates. Lime sinter coatings on new plaster are treated with KEIM Ätzflüssigkeit (lime remover) (1).

Contaminants and loose parts must be removed. Film-forming coatings are removed with KEIM Dispersionsentferner (bio stripper). In case of difficult substrates such as stripped down areas, plaster repairs, hairline cracks or structural differences, KEIM Kristall-Felsit is used as an additive to the base coat and possibly as an intermediate coat (2).



Painting

KEIM Purkristalat paint powder is soaked in KEIM Fixativ (3+4). For the base coat, this paint is diluted further using KEIM Fixativ and applied using a brush, depending on the absorbency of the substrate. For the top coat, the soaked paint is painted or sprayed undiluted. For highly moisture-loaded facades, subsequent hydrophobing with KEIM Lotexan or KEIM Ecotec (5).* is recommended



KEIM Purkristalat-System

KEIM Purkristalat

Two-component, pure silicate paint acc. to DIN 18 363 para. 2.4.1, consisting of KEIM Purkristalat-Farbpulver (paint powder) and KEIM Fixativ.

KEIM Purkristalat-Farbpulver (paint powder)

Paint powder made of purely inorganic, lightfast pigments and selected fillers.

KEIM Fixativ

Pure liquid potassium silicate without organic additives. Binder and dilution for KEIM Purkristalat.

KEIM Kristall-Felsit

Filling additive for the soaked Purkristalat paint on difficult substrates, using Fixativ as dilution. Only for base or intermediate coatings..

*For details regarding the exact application guidelines, please refer to the technical data sheets.

Right illustration:
Stein am Rhein,
Switzerland. The colourful
facades have marked the
townscape of Stein am
Rhein since the end of the
19th century. The term
"picturesque" is
particularly fitting in this
case. Today, the
original facade paintings,
completed with KEIM
silicate coatings in the
eighties and nineties of
the 19th century still
attract thousands of
visitors to the picturesque
town on the Rhine.

Left illustration,
opposite side:
Hotel Bären, Meersburg





KEIM Purkristalat – the advantages:

- **Unrivalled durability**
- **Captivating luminosity and colour brilliance for historical and modern facades.**
- **Resistant to aggressive environmental influences**
- **Extremely water vapour permeable**
- **Low contamination tendency thanks to micro-chalking**
- **Proven and recognised worldwide – successfully in use since more than 130 years**