

# KEIM - PARTNER FOR THE HOUSING INDUSTRY

CREATING VALUES. PRESERVING VALUES.



### KEIM - QUALITY THAT PAYS OFF

### **BUILDING AND LIVING**

Home begins with your own four walls. Creating living space is an essential remit, particularly for the housing industry, with ecological, economical and also social aspects as the central challenges. KEIM supports you with sustainable product solutions and comprehensive services – competently, reliably and individually tailored to each project. That is real added value!

#### **ECOLOGICAL**

Ecological construction depends crucially on the choice of materials. Mineral products by KEIM are ecologically sound, free of emissions, offer optimum attributes in terms of construction physics and create the ideal prerequisites for a healthy room climate and genuine living quality.

### ECONOMICAL

Cheap solutions can often be very expensive in the end. Particularly where construction is concerned, quality proves to be the better and more economical option in the long run. Here the timeline consists of decades not years, so that economic efficiency increases with the durability of the investment. And mineral paints by KEIM are unrivalled when it comes to durability. They prove to be real saving schemes with a long-term effect because they age gracefully with longer renovation intervals that protect the maintenance reserves.

## MAINTENANCE COSTS FOR FACADE COATING FOR A 60-YEAR RENDER LIFE CYCLE

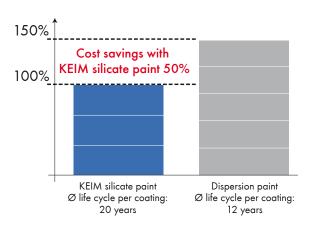




Photo above and left: The Hufeisensiedlung ("Horseshoe Estate") in Berlin – icon of modern urban planning – designed by architects Bruno Taut and Martin Wagner together with garden architect Leberecht Migge.

### **SUSTAINABLE**

Sustainability is a topic that no-one in the construction industry can ignore. Construction material quality and the corresponding renovation intervals are valuable parameters for assessing genuine sustainability. Mineral products by KEIM protect the valuable, resource-intensive fabric of a building permanently from harmful environmental influences.

#### REFERENCE: HUFEISENSIEDLUNG IN BERLIN

In 2008, Bruno Taut's colourful "Hufeisensiedlung" in Berlin-Britz was declared to be a UNESCO World Heritage Site. Constructed between 1925 and 1933, the estate was one of the first social housing projects in Germany. Since 2007, extensive renovation work has been carried out in close consultation with the monument protection authorities, consisting essentially in restoring the external appearance with the original colours and surface design using mineral paints by KEIM.

### **DURABLY BEAUTIFUL FACADES**



Schwyz Town Council House, KEIM original coating from 1891

### SAFEGUARDING VALUES

A facade coating should last at least 20 years – in terms of both appearance and functionality. That is no great challenge for KEIM paint systems. The ideal combination of liquid potassium silicate as binder, mineral fillers from natural sources and inorganic colour pigments guarantees maximum weather resistance and unsurpassed durability. With KEIM products you get more than 140 years of know-how and experience. For decades, countless buildings all over the world have borne witness to their unique quality.

### **CREATING IDENTITY**

Paint has many functions. On the one hand it protects the building fabric; on the other hand it is an important design medium that costs relatively little. Particularly where housing construction is concerned, harmonious colour design creates a special identity for the building and the people who live there, enhancing the residential value.

#### **ADVANTAGES**

- Unrivalled durability
- Economical
- Ecologically sound
- Highest vapour permeability
- Ideal moisture balance
- Facades remain clean in the long-term
- Colour-constant, lightfast and UV-resistant
- Many varied design possibilities

"Quality and durability of paint materials is crucial, particularly with regard to the costs for maintaining our buildings."

Axel Nieburg, Managing Director of Baugenossenschaft Hegau eG (building cooperative)

### REFERENCE: ENERGETIC RENOVATION OF A MONUMENT IN BRAUNSCHWEIG

In a pilot project, a mineral ETIC system by KEIM was to be applied to the gatehouse of the listed complex of buildings extending over several streets in Nordstadt, Braunschweig that date back to the 1930s. The challenge consisted in reproducing the facade design with a special combing technique on the surface of the ETICS. The project was brought to a successful conclusion thanks to comprehensive planning, the right choice of completely mineral materials, highly professional execution and communication between all those involved in the work.





## HEALTHY LIVING SPACE



Renovation with added value: meeting points are created by footpaths in front of the facade belonging to an estate in Bremerhaven, where colours are used for guidance.

### **HEALTHY ROOM CLIMATE**

Interior paints have a considerable influence on the quality of the room air. Conventional dispersion paints contain preservatives, binders, plasticisers, solvents and other chemicals that are consistently detrimental to the room air. Ecological interior paints by KEIM are free of harmful substances, have a high diffusion rating and inhibit the growth of mould and algae. Furthermore, they offer optimum attributes in terms of construction physics, generate a healthy room climate and give you the reassuring feeling that they are safe.

#### **ADVANTAGES**

- High diffusion rating
- Zero emissions, contain no solvents or plasticisers
- Without added preservatives
- Suitable for allergy sufferers
- Without active fogging substances
- Non-flammable
- Mould repellent



Photo above and cover: © Bernd Perlbach

"I think that respecting a building is associated with respecting the people who live there. The aim is to combine both aspects, with commitment and quality putting added value in the planning process."

Hans-Joachim Ewert, Senior Architect, Stäwog

### REFERENCE: NEUELANDSTRASSE, BREMERHAVEN

The impressive renovation of an austere 1950s residential complex received the renowned German Construction Award and the Bremen Housing Prize in 2018. Städtische Wohnungsgesellschaft Bremerhaven (Stäwog - Municipal Housing Association) modernised the residential complex to be barrier-free, age-appropriate and energy-efficient. What's more, the rearrangement of entrance areas together with the creation of an inner courtyard and passageways has created new scope for residents to interact. That is really sustainable!

# ADVANTAGES AND BENEFIT OF KEIM SILICATE TECHNOLOGY





### **ECOLOGICAL**

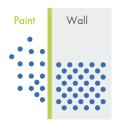
Mineral products by KEIM present an outstanding ecological profile from raw material extraction via production, application and the entire life cycle of the coating through to disposal. Furthermore, they are free of solvents, plasticizers and preservatives. KEIM ETIC systems offer ecological system alternatives and also help protect resources by extending the renovation intervals.





#### **VAPOUR PERMEABLE**

In terms of construction physics, high water vapour permeability is the key criterion for balanced moisture levels. Silicate paints by KEIM are hugely vapour permeable. Any moisture in the building substance can dissipate swiftly and unhindered to the outside, avoiding tricky moisture congestion behind impervious coatings and preventing damage in the long term. In combination with low water absorption, this offers optimum protection from water and frost damage. Nor do mineral surfaces chalk, and their alkalinity and swift drying properties also make them unappealing for algae and fungi. In brief: mineral paints by KEIM are ideal when it comes to construction physics!



Moisture in the brickwork can diffuse unhindered to the outside. The brickwork stays dry, the paint holds.







### **AESTHETIC**

The shades in the KEIM colour range are timeless, ideal for combination solutions and blend harmoniously in with the surroundings, without having a historising effect. Inorganic pigments penetrate the substrate: the substance of the building absorbs the shade with a brilliant result that is absolutely UV-resistant, creating multifaceted, lively colour effects that appeal to all the senses.

"To me, what matters is sustainability and the long-term aspect of the painting work. KEIM is the perfect partner in this respect. We think in generations."

Theo Schaub, Schaub Maler AG, Zurich and Wetzikon



#### **CLEAN**

Silicate paints by KEIM stay clean in the long term. The combination of inorganic pigments and mineral binders results in coating solutions that combine durability with long-term cleanness. In contrast to paints with conventional organic binders (e.g. dispersion or silicone resin paints), silicate coatings are antistatic and non-thermoplastic. This makes it hard for dirt particles to adhere to the surface, for facades that stay clean and beautiful for a long time!





### **PURELY MINERAL**

What counts are the "inner values" of a paint, in other words, the composition of binder, pigments, fillers and additives. KEIM paints have a completely mineral basis. The natural binder potassium silicate forms a chemical bond with mineral substrates such as stone, render and concrete. The result is an extremely durable bond which is far more resistant than the purely superficial adhesion of usual dispersion paints. Mineral pigments are obtained from minerals, they are extremely colour-stable and don't fade. As a rule, fillers consist of rock flour and give the paint the layer thickness that is necessary to protect the facade from weathering.







### **SAFE**

Not even the flame of a welding torch makes KEIM silicate paints ignite. In the case of a fire, this means maximum safety and no toxic fumes, as confirmed by fire tests in Germany and the United Kingdom. Just one reason why only silicate paints are used in many public areas such as underground stations and tunnels, schools or cinemas: nothing can replace health and safety.



### **COLOUR-STABLE**

Recognising that nothing lasts forever, even colour shades change as a result of soiling, harmful substances and also, naturally, the UV portion in sunlight. Silicate paints by KEIM offer security in this respect: they contain only lightfast, inorganic pigments and mineral binders such as potassium silicate or sol-silicate. Potassium silicate is not just of natural origin but also extremely weatherproof.

## KEIM - PAINTS WITH A SYSTEM







### **EXTERIOR PAINTS**

- Unrivalled durability
- Highest vapour permeability
- Ideal moisture balance
- Facades remain clean in the long-term
- Colour-constant, lightfast and UV-resistant
- Mineral-matt surface
- Many varied design possibilities
- Economical
- Ecologically sound

### **PURE SILICATE PAINTS**

One- and two-component pure silicate paints that last for decades

### SILICATE EMULSION PAINTS

For all mineral substrates

### **SOL-SILICATE PAINTS**

For organic, mineral and mixed substrates

### SPECIAL COATINGS

For asbestos and fibre cement panels

### **INTERIOR PAINTS**

- High diffusion rating
- Zero emissions, contain no solvents or plasticisers
- Without added preservatives
- Suitable for allergy sufferers
- Without active fogging substances
- Non-flammable
- Mould repellent
- Independent expert reports

### SILICATE PAINTS WET ABRASION CLASS 1

Premium class products

### SILICATE PAINTS WET ABRASION

For particularly sensitive areas

### SILICATE PAINTS WET ABRASION CLASS 3

For a broad range of applications

### LES COULEURS LE CORBUSIER

Le Corbusier's colour collection, implemented in top quality colour recipes

#### MOULD PROTECTION

For preventing mould

## THERMAL INSULATION SYSTEMS

- Systems with mineral wool, polystyrene and mineral insulation panels
- Perimeter and plinth insulation panels
- Mineral renders and coatings with extremely long life cycles for clean, colour-stable facades
- Optimised moisture balance for non-toxic algae prevention
- Approvals from the building authorities for maximum safety
- Pioneering research and development projects

### **FACADE INSULATION**

Insulation systems with coordinated renders and coatings; clean, durable and effective

### INTERIOR INSULATION

Mould protection, functional interior insulation and room climate systems for cosy living

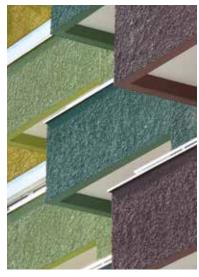
### SURFACE DESIGN

Top quality precious-looking renders and coatings for implementing creative design ideas

ACCESSORIES, PROFILES & SYSTEM SUPPLEMENTS







### **WOOD SYSTEMS**

- Outstanding moisture protection
- UV-resistant and absolutely lightfast
- Extremely weatherproof
- Unrivalled durability
- Velvety matt surface look
- Easy to renovate
- Tested as per DIN EN 927
- External supervision by WKI Braunschweig (Fraunhofer Institute for Wood Research)

### **EXTERIOR WOOD PAINT**

Opaque silicate coating for exterior wood components

### **GREYING GLAZE**

Silicate greying glaze for exterior wood components

### INTERIOR WOOD GLAZE

Wood coating for semi-transparent to opaque interior design elements

### **CONCRETE SYSTEMS**

- Adapted surface protection systems (water and CO<sub>2</sub> protection)
- Equalising and colour design of fair-faced concrete
- Preserving the concrete structure
- Proven renovation materials
- Economical and durable
- Environmentally friendly
- Mineral-matt surface

#### **CONCRETE COATINGS**

Mineral solutions with concrete look for renovation, protection and design

### **MORTARS & FILLERS**

Mortars and fillers for renovation

### **IMPREGNATIONS**

For hydrophobic treatment of mineral construction materials, particularly concrete

### **RENDERS AND FILLERS**

- Environmentally friendly
- Economical
- Vapour permeable
- Weatherproof

### **TOP RENDERS**

Silicate and mineral renders for interiors and exteriors

### **BASE RENDERS**

For light-brick and heavy wall designs

### ADHESIVE AND RENOVATION **RENDERS**

For mineral or organic mixed substrates, flaking surfaces, differences in structure and cracks

### **RENOVATION & MOISTURE REGULATION**

For moisture regulation and for brickwork damaged by salt.

For mechanical or manual application

## EXPERIENCE THE KEIM ALLROUND-CAREFREE PACKAGE



### SAFE, COMPETENT, RELIABLE

We offer you real added value, not just with our sustainable products and innovations but also with our know-how as world market leader for silicate paints. Our comprehensive range of services tailored to your individual requirements assist you in planning your projects efficiently and implementing them perfectly.

#### ► CHECKING SUBSTRATES

- Render analysis
- Strength measurements
- Searching for concealed flaws, e.g. structurally damaging salts

### ► COLOUR CONSULTING

- Colour analysis
- Colour design of individual buildings and whole quarters
- Colour shade selection and colour samples

### ▶ PROFESSIONAL TEAM FOR ETICS AND IIS

- Individual performance specifications
- Calculations regarding construction physics
- Construction management specialists

### ► SPECIAL DIAGNOSIS FOR CONCRETE BUILDINGS

- Inspecting the concrete strength
- Determining the concrete cover
- Measuring the carbonation depth
- Complete restoration proposals

#### ► EXPERT REPORTS AND PLANS OF ACTION

- Elaboration of tender documents
- Supervision when applying the coating on site
- Cooperation with external independent institutes, experts and specialists

"The sustainable approach taken by the ecological, participatory cooperative harmonises with the KEIM quality claim."

Udo Schindler, Graduate Architect & Urban Planner

For more information and local KEIM partners, please go to: www.keim.com





KEIMFARBEN GMBH
Keimstraße 16 / 86420 Diedorf / Tel. +49 (0)821 4802-0 / Fax +49 (0)821 4802-210
Frederik-Ipsen-Straße 6 / 15926 Luckau / Tel. +49 (0)35456 676-0 / Fax +49 (0)35456 676-38
www.keim.com/info@keimfarben.de