

Sustainable building – investment in responsibility and life quality ...



... economic,
ecological, social

Approved!

PREMIUM
is our Standard.



Information for
builders

**KEIMFARBEN – committed
to the concept of sustainability.**

Sustainability is a development
„ which complies with the needs of today's
generation without endangering future
generations, to meet the own needs
and to choose life style.“

Brundtlandt-Report 1987

We research and develop
mineral products and systems,
meeting our self-imposed commitment
for sustainability as well as the demands
and desires of our customers.

KEIMFARBEN since 1878



economical ecological

sustainability

social

**Future needs
responsibility**

The above-mentioned quote from the so-called Brundtland-Report is probably the best known definition of the much-cited and sometimes misunderstood term "sustainability" that has characterised the discussion about future-oriented, responsible economising since 1987. Finally the Rio congress in 1992 showed clearly that sustainability must not only be determined by environmental-specific components.

The theme has three components since then:

- 1. Economy**
- 2. Ecology**
- 3. Social awareness**

When all three components are equally considered, a development can be named "sustainable". And only with "sustainable" actions can we fulfil our responsibilities for future generations.

As a consequence governments, institutes and many others have tried for some years to implement these principles within the building and construction industry. Particularly the "Guideline for Sustainable Building", published by the Ministry of Construction, describes decisive fundamentals for different, building-relevant disciplines.

Our brochure explains which considerations and influences with regards to sustainable building are important when choosing the proper coating material.

*Top:
The "magic triangle"
of sustainability. Only
a long-term and
hoistic approach will
meet the requirements
of today's and
future generations.*



Sustainably economical

»Buildings are normally used over a long period (50-100 years). This must be considered when setting time-dependent standards with regard to **economical** and ecological evaluations.«

(Guideline Sustainable Building, Federal Ministry for Building and Construction, page 3)

Just as the thought of sustainability is calculated in the long run, also cost efficiency of these building materials must be considered.

Cost effectiveness requires durable building products

The choice of building materials is often times decisive for the cost efficiency of the whole construction work. The proper material selection can and should ensure the economical efficiency in the long term. A forward-looking builder will have an eye on the long-term economic potential of his investment, instead of looking for a short-term financial advantage. As architect Hansruedi Preisig, Professor at the Zürich University, says: "It is important, to look for value, quality and durability for the whole life span of a building." And in the Guideline Sustainable Building by the Federal Building Ministry it is said to

have the focus on the materials selected and their durability „ ... in order to increase the life time of a building and to reduce the maintenance and renovation costs“.

KEIM paints are extremely long-lasting – proven for more than 130 years in numerous building projects all over the world. Their unique properties are the reason for their particular longevity.

KEIM paints do not stick to the substrate by adhesion, they “melt” into the substrate by forming a chemical bond called silicification. The binder potassium silicate is highly weather-stable and the mineral fillers are perfectly coordinated.

Moreover, KEIMFARBEN have an ideal moisture balance: exterior moisture barely penetrates through the KEIM ready-to-use paints into the substrate, but still moisture of the masonry diffuses easily. Masonry damage does not occur and the surface remains clean and algae-free thanks to the outstanding redrying properties.

KEIM mineral paints - unequalled durability

Plus, KEIM paints are resistant to airborne pollutants. KEIM paints are anti-static and do not become "tacky" containing absolute UV-stable, mineral pigments. KEIM's long life coatings remain colour.

What lasts for a long time, saves money

KEIMFARBEN are paints for generations. With long life KEIM coatings the result will be lowered building maintenance. And, if additionally chosen the KEIM Exterior Insulation Finishing Systems will save you double the amount by reduced heating and maintenance costs. KEIM Paints perform a sustainable contribution in an economical sense: Increasing value by maintaining value!

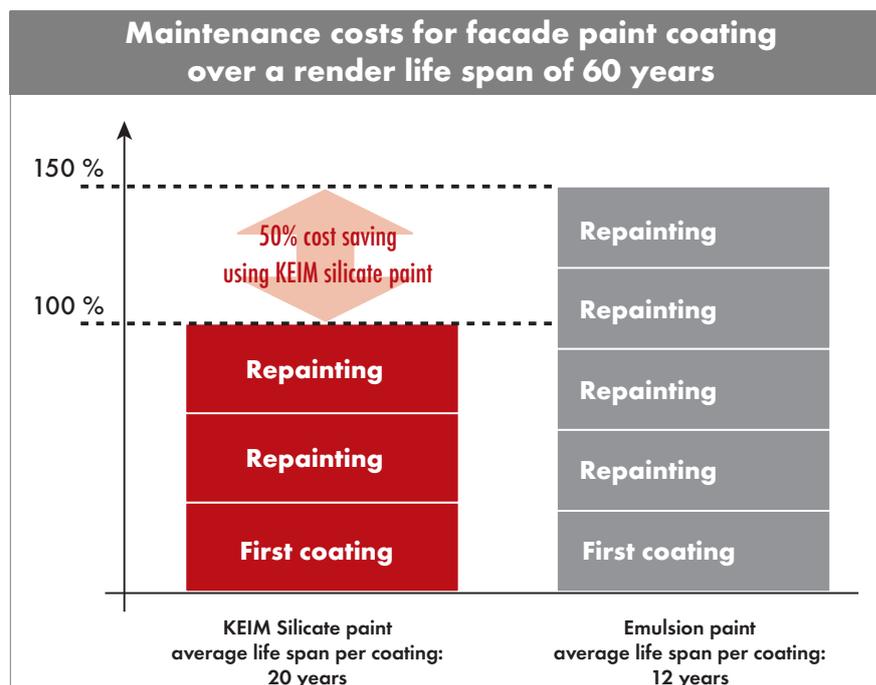
In a nutshell:
Foresight saves money. The requirements for coating, render and thermal insulation has to match the life span of the corresponding building element. KEIM products' durability is unequalled and thus unequalled economically.



Residential area SGH in Bad Oeynhausen, Germany
 Coating: KEIM Purkristalat in 1986



Town Hall in Schwyz, Switzerland
 Original coating from 1891





Sustainably ecological

»Buildings are normally used over a long period (50–100 years). This should be considered when setting time-dependent standards with regard to economical and **ecological** evaluations.«

(Guideline Sustainable Building, Federal Ministry for Building and Construction, page 3)

There are “three principles” for ecological thinking and acting which also is true in the field of “construction and renovation”:

- 1. The exploitation of non-renewable resources has to be avoided, and the use of renewable raw materials must be promoted.**
- 2. Environmental pollution through toxic emissions and waste must be minimised.**
- 3. Energy consumption must be reduced.**

KEIM mineral paints have always been known for their outstanding environmental properties. Resource-efficient manufactured from natural raw materials KEIM paints have a fantastic, ecological assessment over their entire product life cycle: From the extraction of raw materials, production and use phase of the paints over renovation and repainting to the final disposal of the old coating.

Thanks to natural raw materials and harmless product composition, noxious emissions are not a question for KEIMFARBEN: Toxic residues or waste do not occur. For example, to the contrary of dispersion and silicone resin paints, KEIM mineral paints don't need toxic biocides as algae prevention which will be washed out by rain and flow into the ground water thanks to their perfect moisture balance and redrying behaviour.

Contribution to environmental quality is also given by the significantly longer renovation intervals thanks to outstanding durability and easy, eco-friendly repainting procedures.

**KEIMFARBEN -
mineral coatings
stand for resource-
consciousness**

**KEIMFARBEN -
no noxious emissions
or harmful waste**

KEIMFARBEN - help saving energy

KEIMFARBEN help to reduce so-called "grey energy". This is the energy necessary for production, transport and disposal of building material. "Grey energy" for building a house has today already the same dimension as the total energy demand needed to operate the building over the total use phase. The long life and the reduced renovation capabilities of KEIM paints provide real savings.

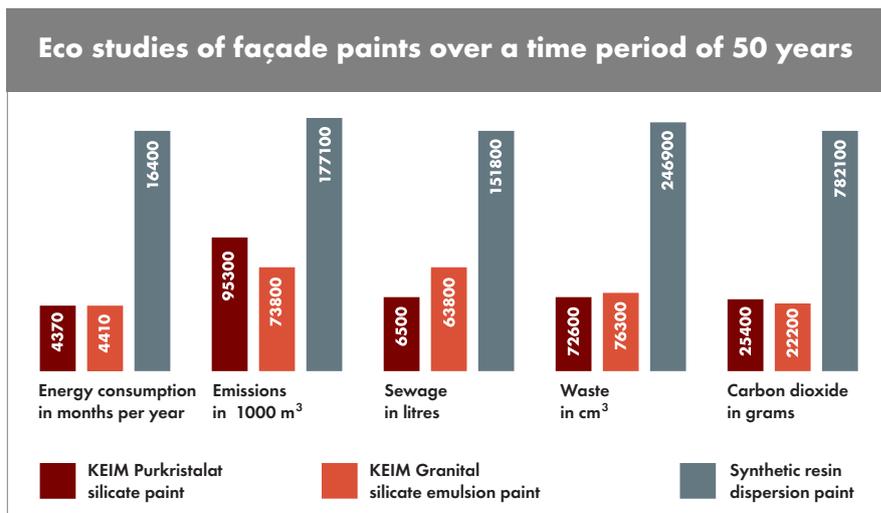
KEIM EIFS - a mineral plus for the environment

Another sustainable benefit for the environment are the mineral KEIM Exterior Insulation Finishing Systems. Reducing heating costs with EIFS is the most efficient way to protect the environment. KEIM-specific mineral surface coatings from plaster, render and paint are particularly eco-friendly as they don't need to be so often renovated.

In a nutshell:
Today only someone who builds environmentally friendly is considered a responsible builder. Ecologically speaking, KEIM mineral paints receive the highest recommendations thanks to their mineral nature and long durability.



The ingredients of KEIM mineral paints are inorganic pigments, fillers and waterglass



Studies of a well-known institute based on a one-family house



Sustainably social

» Social responsibility as important pillar for sustainable construction. This is what we consider as obligation to building materials that are harmless to health. Only with this mindset we will meet our own and also future generations' needs and demands. «

(extract from KEIMFARBEN's company mission)

People spend about 80% of their lifetime indoors. So, the materials which we are surrounded by almost the whole day, of course, have a big influence on our well-being. This is particularly true for architectural paint – barely no other material affects us as consistently like colour.

The human being – the measure of all things

How does colour influence our well-being? Our well-being depends on many factors – the most important ones are health, security and comfort. In terms of social aspects sustainable building means also to build healthy, safe and comfortable. Healthy life only happens in a healthy climate, particularly in living and working areas. Paint properties play an important role. For example,

emissions may pollute the air in a room and become harmful to health. And high-boiling plasticiser that degas in little quantities over a long time should be absolutely avoided.

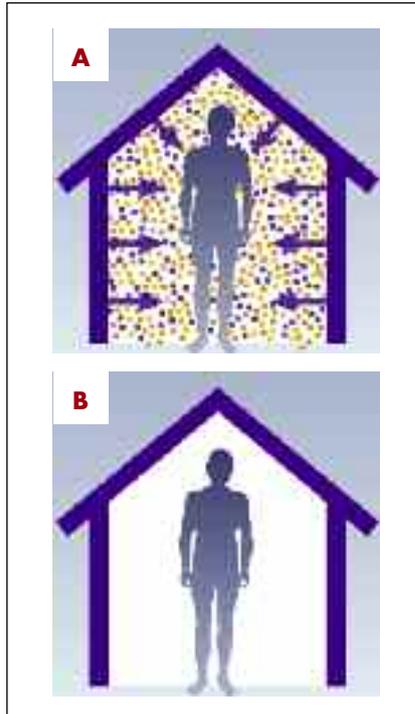
Often times paints are not sufficiently open-porous and thus not absorbing. In fact, they “glue” the wall closed. With the consequence: Moisture from the room air cannot be absorbed but condenses on the surfaces which increases the mould risk.

KEIM's mineral interior paints have no solvents and no plasticisers added, so there aren't any bad emissions. Approved by independent institutes and regularly controlled, KEIM paints are even suited for allergic persons. The open pores of a KEIM coating allow the regulation of air humidity and prevents condensed water on wall surfaces. Plus, KEIM mineral paints are alkaline and hinder mould.

**KEIMFARBEN –
sustainably healthful**

Image A:
Many interior paints contain harmful ingredients like solvents or pot preservatives that are released to the indoor air.

Image B:
Walls coated with KEIM paints are free from pollutants.



KEIMFARBEN - sustainably safe

Due to their silicate nature KEIM paints are non-combustible. In case of fire the coatings do not ignite and do not release toxic gases. Coated surfaces are often times the largest "combustion gas contributors" of indoors. Being non-flammable is a tremendous safety advantage for interior paints.

Colours create identity and individuality. Clearly showing that here live thinking and caring human beings. The natural materials and specific aesthetics of KEIM paints provide ideal conditions. The outstanding longevity and incredible colour stability keep identity and identification durably alive.

KEIMFARBEN - for more social responsibility

KEIMFARBEN - sustainably cosy

Colours are a basic human need. By nature we are surrounded by colours. KEIM paints aesthetic features are unique - their natural structure and the fascinating matt surface are equally pleasant and familiar. Only mineral paints have this characteristic colour effect. Even intensive, full-tone colours are never eye-popping, loud or piercing - but always fascinating with a deep colour matt appearance.

In a nutshell:
Sustainable building includes a social component. Meaning, to choose building materials with the awareness for products that are safe and harmless to health and at the same time attractive.

Interview ...

... with
Wolfgang Kamieth,
architect BDA*



*BDA
(Bundesverband
deutscher
Architekten =
Association of
German architects)

KEIMFARBEN • Mr. Kamieth, it seems that the topic "sustainability" has not yet found the position it should have in the thinking and awareness of many architects, planners and builders. What could be the reason?

Wolfgang Kamieth • The "unconsciously" proper handling of sustainable building materials was for the old builders just normal until the mass construction of housings and the industrialization started. Materials from the area were used for construction sites which were "recycled" easily after demolition.

Changes began with construction chemicals, modern materials and the fact that various products are available. It happens today that a natural stone is quarried in China, finished in Spain, impregnated in Italy and finally used in Germany - and, this has nothing to do with "sustainability".

KEIMFARBEN • What must an architect or planner pay attention to when choosing building materials?

Wolfgang Kamieth • First he has to consider that a property planned today will be still used or refurbished in 20, 40 or 60 years. Not to forget the expected repairs and maintenance intervals and short product distances.

KEIMFARBEN • Where do you see the aspect of health?

Wolfgang Kamieth • To build in a sustainable way also means to build safe and healthy. More and more people become sensitive for that.

Particularly private builders and many housing associations want to hear binding statements from the architects.

KEIMFARBEN • How do you assess the future?

Wolfgang Kamieth • The meaning of "sustainability" will become more and more important for architects and on the other side for the builders and users. Dealing with the aspects of "sustainability" will entail a more differentiated selection of building materials. Building works and materials will be evaluated with regard to their durability and be more considered in the planning.

*Photographs:
Ecological,
sustainable
residential area
in Steinheim
on the river Murr
(Germany)*





Key features:

Sustainable building and renovation is an investment for the future.

- **Sustainability comprises three components: Economy, ecology and social awareness.**
- **KEIM's economical and durable products are unequalled.**
- **KEIM EIFS even save twice: They help reduce heating energy requirements plus maintenance costs of the façade.**
- **KEIM products have an excellent eco-balance.**
- **KEIM products are harmless to health. They have optimal physical properties, providing moisture-regulating and anti-mould capabilities.**

Our future requires responsibility!
KEIMFARBEN