

KEIM Soldalit



**The new generation of
sol-silicate paint**



KEIM Soldalit – the new generation of sol-silicate paint

Silicate products with persuasive features

Extremely long service life, outstanding building physics, absolute light-fastness, UV resistance, clean surfaces, good economic viability, simple renovation and environmental compatibility have been and remain the undisputed advantages of a silicate coating. This is because, thanks to the chemical nature of their binder "water glass", silicate paints form a permanent bond with a mineral substrate.

The result is a highly resistant and durable colour coat.

In the past, anyone wishing to benefit from these advantages for an exterior surface either required a mineral substrate or alternatively had to depend on costly and labour-intensive bonding bridges. That's all a thing of the past now.

UV stable and
lightfast



Resistant to
environmental pollutants



Highly
water-repellent



Weathering
resistant



Non-
flammable



Highly water
vapour permeable





KEIM Soldalit – the sol-silicate paint: a revolution in silicate systems

Sol-silicate paint – a revolutionary innovation

KEIM Soldalit has turned what for decades seemed an unattainable dream into reality: the development of a silicate exterior paint combining the undisputed advantages of a classic silicate paint with the versatility and simplicity of application of organically bound paints. Organic (and, of course, also mineral) substrates can be painted directly, simply and reliably using KEIM Soldalit sol-silicate paint.

From its base in Augsburg, KEIM is thus continuing its tradition of innovation in the development of silicate products, something which has already impressively been demonstrated by its market leading position in the mineral paint manufacturing sector.

- In 1878, A.W. Keim successfully formulated the first pure silicate paint.
- In 1962, KEIMFARBEN produced KEIM Granital, the first silicate paint to be formulated as a single component, so creating a new class of product, the silicate emulsion paint. Over the years, KEIMFARBEN carried on developing this second generation of silicate paints, suiting it for numerous applications.
- In 2002, KEIM Soldalit marked another milestone in silicate systems, establishing sol-silicate paint as the third generation of silicate paints.

KEIM Soldalit is the first exterior paint with a silicate binder which is truly universally applicable.

Milestones in silicate systems

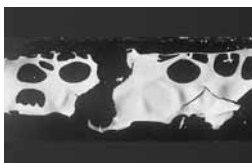


KEIM Soldalit – and the „sol-silicate principle“

**Laboratory testing:
coating tests on
plastics film**



Pure silica sol, white pigmented, cannot be applied as a continuous layer



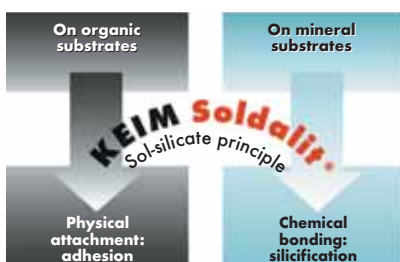
Pure water glass, white pigmented, similarly cannot be applied as a continuous layer



Only the stabilised combination of silica sol and water glass exhibits adequate adhesion (no dispersant added)

Silica sols, like potassium water glasses, are special forms of liquid silicon dioxide, i.e. purely inorganic, silicate substances. Unfortunately, the binding power of pure silica sol alone is inadequate for it to be used as a binder for exterior paints, but KEIM's researchers have managed to create a controlled blend with "ordinary" potassium water glass which optimises the binding power of the two constituents, silica sol and potassium silicate. This sol-silicate has entirely novel properties as a binder, including excellent adhesion onto virtually any common substrate.

**The sol-silicate
principle:
an intelligent fusion
of two different
principles**



In addition to sol-silicate's strong adhesive power, this silicate binder also fully retains its silicification capacity. Soldalit thus forms a chemical bond wherever mineral reaction partners are available, for example with particles of render exposed by weathering of the organic coating – an ideal partnership of two different principles of adhesion.



KEIM Soldalit – the absolute favourite for any substrate

**mineral,
multi-purpose,
reliable**

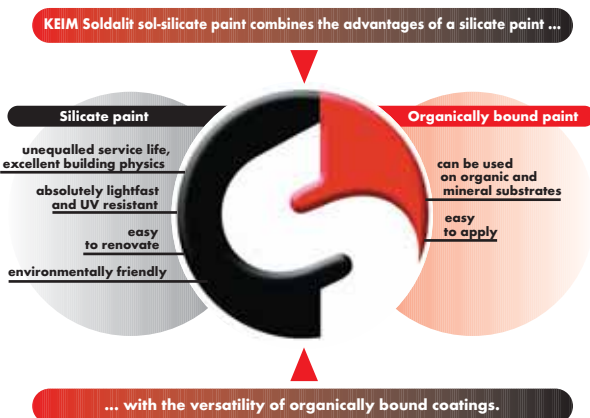
KEIM Soldalit adheres reliably to mineral and organic substrates. In this way, KEIM Soldalit is the first silicate paint created with the inspired idea of combining the versatility of emulsion-bound paints with the mineral quality features of a classic silicate paint.

Using KEIM Soldalit, existing coatings with an emulsion binder can be simply and reliably "remineralised" at the surface.

Applying a mineral coating on organic substrates – what are the benefits?

A silicate coating with KEIM Soldalit:

- protects the existing substrate from further destruction by UV exposure
- creates an absolutely lightfast, colour stable surface
- reduces the quantity of condensation on the exterior surface thanks to the coating's silicate matrix, so reducing the risk of algal growth
- minimises soiling due to its antistatic, non-thermoplastic properties, so creating durably clean surfaces
- is extremely weather resistant and durable
- retains the existing diffusivity of the wall structure
- and, when it comes to renovation, it can simply be overcoated.





KEIM Soldalit – a unique, mineral-based

**KEIM Soldalit –
an innovative
combination of
tradition and
progress**

KEIM Soldalit creates lightfast and UV resistant coatings with elevated condensation resistance which, thanks to ideal building physics and binder stability, are extremely durable and resistant to weathering. Perfected by extensive research and development work backed up by long years of practical use on many different structures, KEIM Soldalit is the modern, innovative counterpart to the tried and trusted "classic", KEIM Granital. KEIM Soldalit is the perfect combination of tradition and progress, the result of decades of experience, intensive forward-looking research and consistent quality consciousness by KEIMFARBEN.

A perfect combination of high-quality raw materials tailored to one another, such as pure inorganic pigments, mineral extenders and silicate binders, means that contractors, painters and decorators can expect extremely high product quality, reliability of application and durability.

**A perfectly
tailored
formulation**



KEIM Soldalit – a reliable product system

KEIM Soldalit system components

KEIM Soldalit

Ready-to-use sol-silicate paint to DIN EN 1062-1. Also complies with the requirements of VOB/C DIN 18 363 2.4.1 for "silicate emulsion paint"

KEIM Soldalit-Grob

Sol-silicate paint with coarse extender to DIN EN 1062-1 for priming and optional intermediate coats. For equalising differences in texture or closing fine hairline cracks. Also complies with the requirements of VOB/C DIN 18 363 2.4.1 for "silicate emulsion paint"

KEIM Soldalit-Fixativ

Sol-silicate based diluent, organic content < 5%.

KEIM Soldalit-arte

Ready-to-use sol-silicate paint to DIN EN 1062-1 WITHOUT titanium dioxide for coatings with particular colour depth and vibrancy. Also complies with the requirements of VOB/C DIN 18 363 2.4.1 for "silicate emulsion paint"

KEIM Soldalit-arte-Grob

Sol-silicate paint with coarse extender to DIN EN 1062-1 WITHOUT titanium dioxide for priming and optional intermediate coats for equalising differences in texture or closing fine hairline cracks.. Also complies with the requirements of VOB/C DIN 18 363 2.4.1 for "silicate emulsion paint"

**KEIM
Soldalit-arte -
for exceptional
colour depth**



KEIM Soldalit – overview of key features:

- *Multi-purpose coating usable on any substrate*
- *Extremely durable thanks to very high weathering resistance and ideal building physics*
- *Ideal moisture balance*
- *Particularly economical*
- *Absolutely lightfast and UV stable for long-term colour stability*
- *Slight soiling tendency*
- *Silicate matt surface appearance*
- *System components perfectly tailored to one another*

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KEIMFARBEN
consistently mineral