

KEIM



# KEIM MINERAL PAINTS

SPECIAL FINISHES



# KEIM MINERAL PAINTS

KEIM Mineral Paints were developed over 140 years ago and are used globally to provide extremely long lasting, protective and durable coatings with a reputation for being the best paints in the world.

KEIM paints penetrate and chemically bond with the mineral substrate onto which they are applied, becoming an integral part of the surface, whereas oil based paints merely form a skin on the surface. KEIM Mineral Paints are natural, water-borne liquid silicate paints which produce an extremely durable, colourfast, sustainable protective finish with high vapour permeability, which work in harmony with the environment.

KEIM Mineral Paints was established in the UK in 1987.

Offering a wide range of KEIM products including pre-treatments, external and internal paints, renders, concrete repair systems, and mineral restoration materials, KEIM Mineral Paints are the UK's acknowledged experts in mineral paints, renders and repair systems. KEIM Mineral Paints provide a technical and support service encompassing project specifications, application and colour advice to a diversity of projects, from historic to modern, restoration to new build, private and public. To date, KEIM Mineral Paints have been applied on over 15 million square metres of surfaces within the UK.

**KEIM – Unparalleled performance and durability.**



# WHAT ARE KEIM MINERAL PAINTS ?

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## Environmentally Friendly -

KEIM Mineral Paints are water borne, odourless, non-toxic and manufactured with natural ingredients using a low energy manufacturing process. KEIM Mineral Paints contain neither solvents nor any petro-chemical derivatives, are inherently non-combustible and do not give off any toxic gases. Over their entire life cycle from raw material extraction to production, processing and ultimate disposal, mineral paints have an excellent environmental profile.



## Durable -

Mineral paint systems are based upon penetration (silicification) of the binder into the substrate. A strong, permanent bond is created between the paint and the underlying substrate (e.g. render, natural stone, concrete). This potassium silicate binder is highly resistant to weathering, ensuring an extremely long-life protective finish, reducing the frequency of re-decoration cycles. KEIM Mineral Paints do not flake and the binder does not disintegrate under the effect of UV light. They are resistant to acid rain and industrial pollution.



## Cleanliness -

KEIM Mineral Paints have no residual electrostatic charge, unlike oil based paints, and therefore do not attract dust. Over time they remain cleaner than oil based paints. The silicate structure is highly stable and able to resist acid and alkali attack, while the inherent alkaline nature of KEIM Mineral Paints means they are resistant to the growth of fungi and algae spores.





### Colour stability -

KEIM Mineral Paints contain exclusively high-quality, lightfast, mineral pigments and binders which exhibit the greatest UV resistance of all paint systems, and are highly weather-resistant. All KEIM colours are unaffected by weathering and UV radiation, ensuring no colour fade with the passage of time. Having a bright matt appearance, the crystal structure of KEIM Mineral Paints gives a high level of light reflectance compared to oil based film forming paints of a similar colour.



### Incombustible -

KEIM Mineral Paints are inherently non combustible, do not support the spread of flame and give off no noxious emissions due to their inorganic composition. Mineral paints are therefore ideal for use in safety critical public areas such as underground stations and tunnels, airports, schools and flats.



### Breathable -

The micro-crystalline nature of the KEIM coating system creates finite spaces between adjacent crystals, which are large enough to allow the free passage of vapour, but small enough to prevent the ingress of driven rain. This imparts the KEIM Mineral Paint system with high water vapour permeability. This high breathability enables moisture vapour contained in building structures to be quickly released unhindered into the environment, avoiding moisture build up between coating and substrate, and preventing damage to the surface and building structure resulting from trapped moisture.

# SPECIAL FINISHES

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In addition to exterior and interior mineral paints, concrete finishes, renders and stone restoration materials, KEIM Mineral Paints offers additional special products which provide complimentary finishes onto a range of mineral substrates.

KEIM's special products are all developed using the same philosophy as our mineral paint systems, to ensure substrate breathability, durability and longevity.



## Water Repellent Finishes:

KEIM Lotexan/N

KEIM Ecotec

KEIM Silan 100



## Colourwash Finishes:

KEIM Lasur Range



## Dust Suppressant Finishes:

KEIM Lotexan/N

KEIM Ecotec

KEIM Fixativ



## Anti-Graffiti Finishes:

KEIM MX Glaze

KEIM Wax Coating



## WATER REPELLENT PRODUCTS

**KEIM Lotexan/N** - KEIM Lotexan is a clear, siloxane based water repellent and dust suppressant treatment for use on alkaline mineral substrates such as concrete, render and brickwork.

When applied onto mineral surfaces, KEIM Lotexan soaks into the substrate and, having a small molecular size, coats the pores of the mineral structure without blocking them. A chemical reaction takes place, creating the water shedding properties of the siloxane, imparting excellent water repellence while maintaining moisture vapour permeability through the open pores.

KEIM Lotexan N is a dedicated generic variant of KEIM Lotexan for mineral substrates which have a lower alkalinity, such as weathered natural stone.

**KEIM Ecotec** - KEIM Ecotec is an environmentally friendly, solvent free, colourless water repellent and dust suppressant. KEIM Ecotec is a concentrated hydro-phobing silicone micro-emulsion, diluted with water, which reduces water absorption.

**KEIM Silan 100** - KEIM Silan 100 is used to provide a water repellent finish on mineral building materials, in particular concrete.

KEIM Silan 100 is ideal where surfaces are exposed to de-icing salts and to protect reinforcing steel from chloride corrosion due to salt penetration. KEIM Silan 100 can be used as a priming coat prior to subsequent applications of KEIM Mineral Paint systems, or as a stand-alone water repellent finish.

# WATER REPELLENT TECHNICAL INFORMATION

Product	KEIM Lotexan/N	KEIM Ecotec	KEIM Silan 100
<b>1. Field of Application</b>	KEIM Lotexan/N are siloxane based water repellent impregnations to reduce the water absorption of mineral surfaces. Also used as dust suppressants.	KEIM Ecotec is a solvent free, silicone micro-emulsion based hydrocarbon concentrate for use as an environmentally friendly water repellent and dust suppressant.	KEIM Silan 100 is a solvent free, silane-based water repellent for use on all mineral substrates, particularly suitable for concrete, where carbonation resistance is required.
<b>2. Product Properties</b>	<ul style="list-style-type: none"> <li>• Water vapour permeable</li> <li>• Does not change substrate colour</li> <li>• Long life performance</li> <li>• KEIM Lotexan for alkaline substrates</li> <li>• KEIM Lotexan N for natural stone</li> </ul> <p>Water absorption coefficient: <math>w &lt; 0.05 \text{ kg/m}^2 \text{ h}^{0.5}</math></p>	<ul style="list-style-type: none"> <li>• Water vapour permeable</li> <li>• Does not change substrate colour</li> <li>• Environmentally friendly</li> <li>• Low VOC</li> <li>• Solvent free, dilute with water</li> </ul> <p>Water absorption coefficient: <math>w &lt; 0.05 \text{ kg/m}^2 \text{ h}^{0.5}</math></p>	<ul style="list-style-type: none"> <li>• Water vapour permeable</li> <li>• Does not change substrate colour</li> <li>• Solvent free</li> <li>• Ideal for concrete, protects against chloride corrosion and de-icing salts</li> <li>• Can also be used as a priming coat under KEIM paint systems</li> </ul> <p>Water absorption coefficient: <math>w &lt; 0.06 \text{ kg/m}^2 \text{ h}^{0.5}</math></p>
<b>3. Application Instructions (onto clean dry surfaces)</b>	KEIM Lotexan/N should be applied as a two coat system, by low pressure spray or brush, with a period of approximately 10 minutes between coats.	KEIM Ecotec should be mixed to a ratio of 1:9 with water (1 part KEIM Ecotec to 9 parts water). Applied with low pressure spray as a flood coat, or saturated with a brush from top to bottom.	KEIM Silan 100 should be applied as two wet-on-wet flood coats or as a single flood coat, by brush or low-pressure spray.
<b>Cleaning of tools</b>	Clean immediately after use with solvent.	Clean immediately after use with water.	Clean immediately after use with water.
<b>Consumption*</b>	0.4lt/m <sup>2</sup> for two coats as a water repellent.	Dependant on the capillary absorbency of surface, between 0.2lt/m <sup>2</sup> and 0.8lt/m <sup>2</sup> (premixed). The proportion of KEIM Ecotec equates to 0.02lt/m <sup>2</sup> - 0.08lt/m <sup>2</sup> .	0.2lt/m <sup>2</sup> for one coat, 0.3lt/m <sup>2</sup> for two coats.
<b>Packaging</b>	5 lt containers	1 lt container	5 lt containers

\*Please note all consumption rates given in the technical information section are offered for guideline purposes and are quoted for smooth surfaces. Actual rates are the responsibility of the applicator. Project specifications should be referred to for specific rates.



# DUST SUPPRESSANT PRODUCTS

**KEIM Lotexan/N** - KEIM Lotexan is a clear, siloxane based water repellent and dust suppressant treatment for use on alkaline mineral substrates such as concrete, render and brickwork.

When applied onto mineral surfaces, KEIM Lotexan soaks into the substrate and, having a small molecular size, coats the pores of the mineral structure without blocking them. A chemical reaction takes place, creating the water shedding properties of the siloxane, imparting excellent water repellence while maintaining moisture vapour permeability through the open pores.

KEIM Lotexan N is a dedicated generic variant of KEIM Lotexan for mineral substrates which have a lower alkalinity, such as weathered natural stone.

**KEIM Ecotec** - KEIM Ecotec is an environmentally friendly, solvent free, colourless water repellent and dust suppressant. KEIM Ecotec is a concentrated hydro-phobing silicone micro-emulsion, diluted with water, which reduces water absorption.

**KEIM Fixativ** - KEIM Fixativ is a silicate binding agent and dust suppressant which reacts chemically to consolidate the surface. KEIM Fixativ is water vapour permeable and is suitable for external and internal use on surfaces with light chalking and dusting.



# DUST SUPPRESSANT

## TECHNICAL INFORMATION

Product	KEIM Lotexan/N	KEIM Ecotec	KEIM Fixativ
<b>1. Field of Application</b>	KEIM Lotexan/N are siloxane based water repellent impregnations to reduce the water absorption of mineral surfaces. Also used as dust suppressants.	KEIM Ecotec is a solvent free, silicone micro-emulsion based hydrocarbon concentrate for use as an environmentally friendly water repellent and dust suppressant.	KEIM Fixativ is a silicate binding and fixing agent made from pure, liquid potassium silicate which can be used as a dust suppressant.
<b>2. Product Properties</b>	<ul style="list-style-type: none"> <li>• Water vapour permeable</li> <li>• Does not change substrate colour</li> <li>• Long life performance</li> <li>• KEIM Lotexan for alkaline substrates</li> <li>• KEIM Lotexan N for natural stone</li> </ul>	<ul style="list-style-type: none"> <li>• Water vapour permeable</li> <li>• Does not change substrate colour</li> <li>• Environmentally friendly</li> <li>• Low VOC</li> <li>• Solvent free, dilute with water</li> </ul>	<ul style="list-style-type: none"> <li>• Water vapour permeable</li> <li>• Does not change substrate colour</li> <li>• Consolidates the surface</li> <li>• UV and weather resistant</li> <li>• Environmentally friendly, non toxic</li> <li>• Odourless</li> <li>• Low environmental impact building material</li> </ul>
<b>3. Application Instructions (onto clean dry surfaces)</b>	KEIM Lotexan/N should be applied as a two coat system, by low pressure spray or brush, with a period of approximately 10 minutes between coats.	KEIM Ecotec should be mixed to a ratio of 1:9 with water (1 part KEIM Ecotec to 9 parts water). Applied with low pressure spray as a flood coat, or saturated with a brush from top to bottom.	KEIM Fixativ should be applied as a single coat, diluted 50:50 with clean cold water and applied by brush or low pressure spray.
<b>Cleaning of tools</b>	Clean immediately after use with solvent.	Clean immediately after use with water.	Clean immediately after use with water.
<b>Consumption *</b>	0.2lt/m <sup>2</sup> for two coats as a dust suppressant.	Dependant on the capillary absorbency of surface, between 0.2lt/m <sup>2</sup> and 0.8lt/m <sup>2</sup> (premixed). The proportion of KEIM Ecotec equates to 0.02lt/m <sup>2</sup> - 0.08lt/m <sup>2</sup> .	0.1lt/m <sup>2</sup> of KEIM Fixativ (and 0.1lt/m <sup>2</sup> of water)
<b>Packaging</b>	5 lt containers	1 lt container	4 lt containers

\*Please note all consumption rates given in the technical information section are offered for guideline purposes and are quoted for smooth surfaces. Actual rates are the responsibility of the applicator. Project specifications should be referred to for specific rates.



## KEIM LASUR COLOURWASHES

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KEIM Lasur finishes are translucent colourwashes which have been developed for application onto mineral surfaces.

KEIM Lasurs are used to produce finishes that create a decorative, unifying effect but retain the look and feel of a natural surface and most importantly do not appear painted.

Due to their versatility KEIM Lasurs are suitable for application onto all unpainted mineral substrates.

**KEIM Restauro Lasur** - suitable for render, brickwork and stone surfaces, ideal for creating colour effects such as replicating limewash, disguising repairs and blemishes.

**KEIM Concretal Lasur** - for concrete surfaces to even out variations in colour, unsightly blemishes and disguise rust staining and shuttering marks, whilst retaining the look of unpainted concrete.

# KEIM LASUR

## TECHNICAL INFORMATION

### 1 Field of application

KEIM Lasurs are suitable for all types of unpainted mineral substrates.

KEIM Restauro Lasur for render, brickwork and stone surfaces, diluted with KEIM Restauro Fixativ.

KEIM Concretal Lasur for concrete surfaces diluted with KEIM Concretal Dilution.

### 2 Product properties

- Water vapour permeable
- Colourfast
- Resistant to mould and fungal growth
- Easily cleaned
- Free from solvents and biocides
- Unifies colour
- Non-flammable

**KEIM Restauro/Concretal Lasur  $s_d$ :**  $\leq 0.01$  m

**VOC Content:** 0-4g/lit VOC

### 3 Application instructions

#### Substrate preparation

All loose, flaking and unstable material must be identified and then thoroughly removed, all surfaces must be thoroughly washed down with clean cold water to remove all surface dirt and dust.

#### Application

The specification of KEIM Lasurs will vary according to the specific type of substrate.

A typical specification would be a two coat system; the first coat to be the appropriate Dilution/Fixativ applied by brush and worked well into all surfaces.

After a minimum period of 12 hours a second coat of KEIM Lasur in the chosen colour should be applied, diluted to the required level with the appropriate Dilution/Fixativ.

Additional coats may be applied in the same manner as the second coat, or with slight variations and colours, dependent on the desired finish.

We would always suggest that site trials are conducted to determine the desired colour and number of coats and the ratio of Fixativ/Dilution required to obtain the desired opacity and determine consumption rates.

#### Cleaning of tools

Clean immediately after use with water.

### 4 Packaging

5lt & 15lt containers

# ANTI-GRAFFITI PRODUCTS

**KEIM MX Glaze** - KEIM MX Glaze is an engineered siloxane coating with the properties of both a high performance epoxy and a polyurethane in one coat.

KEIM MX Glaze provides a general purpose high gloss, clear coating which has good weathering and wear resistance properties.

The finish provides a wipeable, durable surface that has excellent anti-graffiti properties and is suitable for all mineral substrates.

KEIM MX Glaze can be applied over KEIM Mineral Paints to provide anti-graffiti protection.

**KEIM Wax Coating** - KEIM Wax Coating is a sacrificial anti-graffiti system applied as a two coat system.

KEIM Wax Coating is made with polymers and synthetic water-based wax and is designed to be easily removed and re-applied. Graffiti can be removed using a high pressure sprayer or by using KEIM Wax Coating Graffiti Cleaner.

KEIM Wax Coating has a low sheen finish and does not significantly darken the surface to which it is applied. It is suitable for all mineral surfaces and for surfaces which have been treated with KEIM Mineral Paints.



# ANTI-GRAFFITI TECHNICAL INFORMATION

Product	KEIM Glaze MX	KEIM Wax Coating
<b>1. Field of Application</b>	KEIM MX Glaze is an engineered siloxane coating with the properties of both a high performance epoxy and a polyurethane in one coat. General purpose high gloss coating offering good weathering and wear resistance. Provides a wipeable, durable surface that has good anti-graffiti properties for all mineral substrates.	KEIM Wax Coating is a two coat semi-permanent/sacrificial anti-graffiti system made from polymers and water-based wax. KEIM Wax Coating is suitable for all mineral surfaces and for surfaces which have been treated with KEIM Mineral Paints.
<b>2. Product Properties</b>	<ul style="list-style-type: none"> <li>• Gloss appearance</li> <li>• Easy to remove graffiti</li> <li>• Clear</li> </ul>	<ul style="list-style-type: none"> <li>• Non-flammable</li> <li>• Easy to remove graffiti and recoat</li> <li>• High vapour permeability</li> <li>• Clear</li> </ul>
<b>3. Application Instructions (onto clean dry surfaces)</b>	KEIM MX Glaze is supplied in the correct mixing proportions of resin and cure. Add cure to resin and stir thoroughly with mechanical mixer for five minutes. Apply a thin and even coat by brush or short pile roller.	KEIM Anti-Graffiti Wax Coating should be applied as a two coat system with four hours between coats. Each coat is applied working from the top downwards by low-pressure spray, brush or roller.
<b>Cleaning of tools</b>	Clean immediately after use with solvent.	Clean immediately after use with water.
<b>Consumption*</b>	Approx. 0.1lt/m <sup>2</sup> per coat	Approx. 0.25 - 0.3 lt/m <sup>2</sup> (for two coats)
<b>Packaging</b>	5 lt containers	5 lt containers

\*Please note all consumption rates given in the technical information section are offered for guideline purposes and are quoted for smooth surfaces. Actual rates are the responsibility of the applicator. Project specifications should be referred to for specific rates.



CORINTHIA HOTEL

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