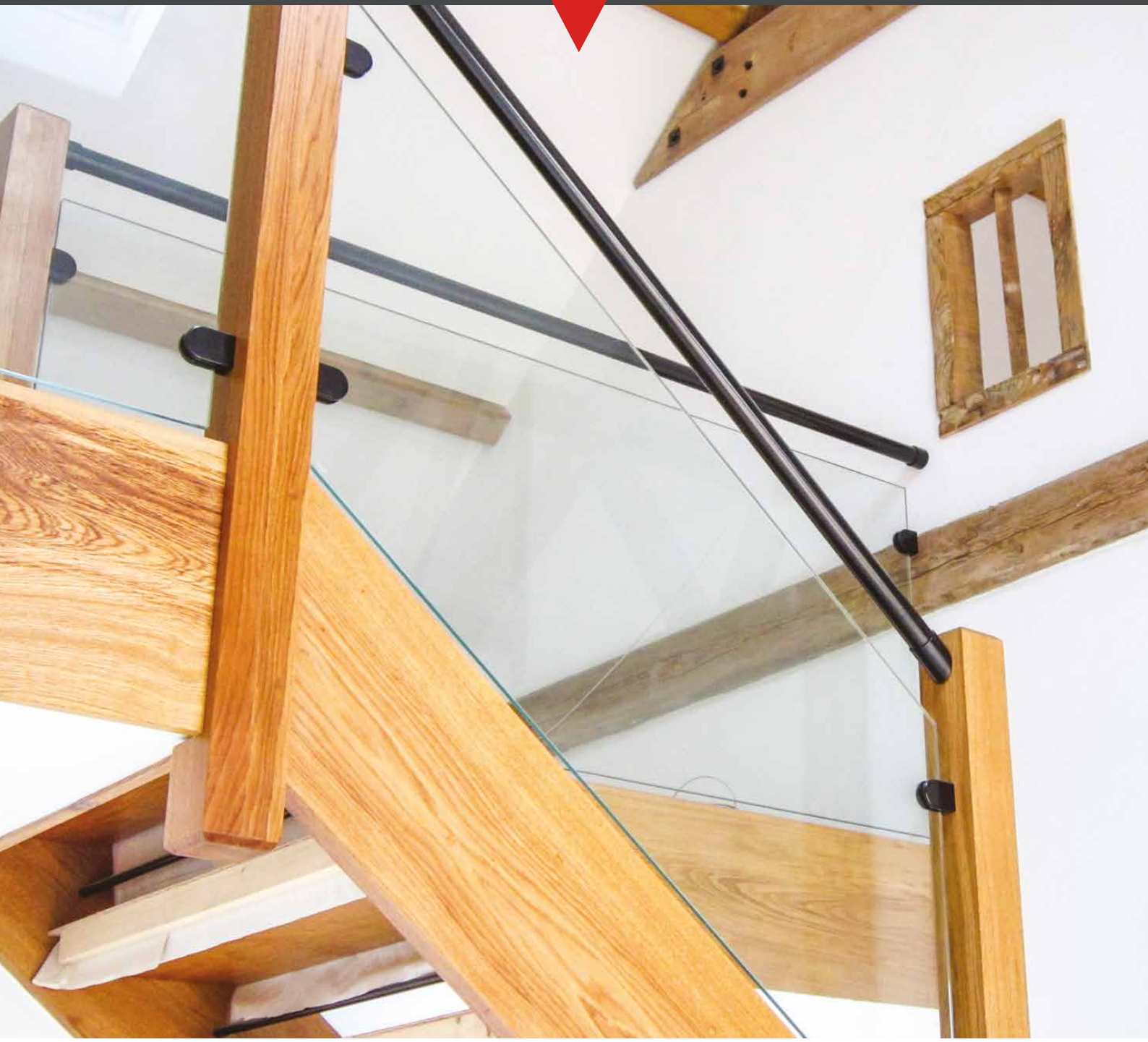


KEIM MINERAL PAINTS

INTERNAL PAINT SYSTEMS



KEIM MINERAL PAINTS

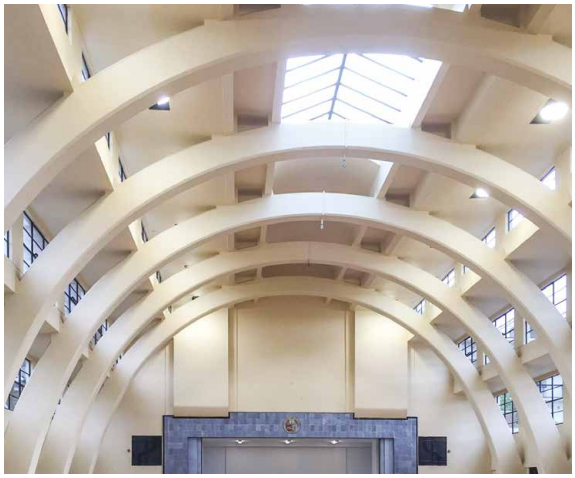
KEIM Mineral Paints were developed over 140 years ago and are used globally to provide extremely long lasting, protective and durable coatings with a reputation for being the best paints in the world.

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 ?

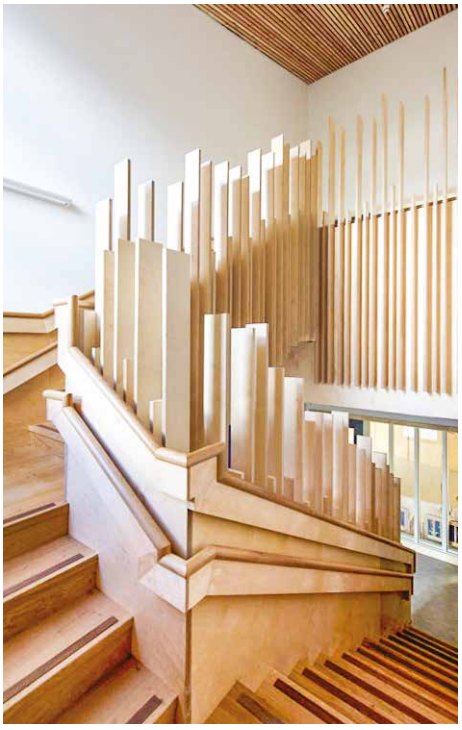
Environmentally Friendly -

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.



INTERIOR SURFACES

KEIM's interior product range is suitable for mineral substrates such as plasters including traditional sand and cement based materials, lime products, brickwork and concrete. The products can also be applied onto all types of stone including sandstone, limestone and rubble stone. KEIM paints are not suitable for plastic (including GRP), metal or wood. Depending on the condition of the substrate, different pre-treatments will be required, this is discussed in detail later in this brochure.

The use of colour and light in internal spaces has a profound impact on those using the space. Whether in a living room or child's bedroom, a large office building or even a school, the choice of materials and colours will have an influence on people's perception of the space as well as their health and wellbeing.

When applied to internal mineral substrates, KEIM paints provide beautiful flat matt mineral finishes. Unlike conventional paints, KEIM Mineral Paints become an integral part of the substrate, rather than merely a surface coating, which gives the best possible longevity and protection.

KEIM paints remain colour stable and do not fade, and their ability to reflect light, without a shiny appearance, gives a desirable modern appearance as well as utilising natural light and reducing reliance on artificial sources. The materials are all odourless and free from harmful chemicals which promotes a healthier indoor environment. KEIM Ecosil-ME also goes one step further and actively removes pollutants to improve air quality. The correct use of colours in working and learning environments has been proven through various studies to improve productivity.

Internal Product options:



KEIM Optil



KEIM Ecosil-ME

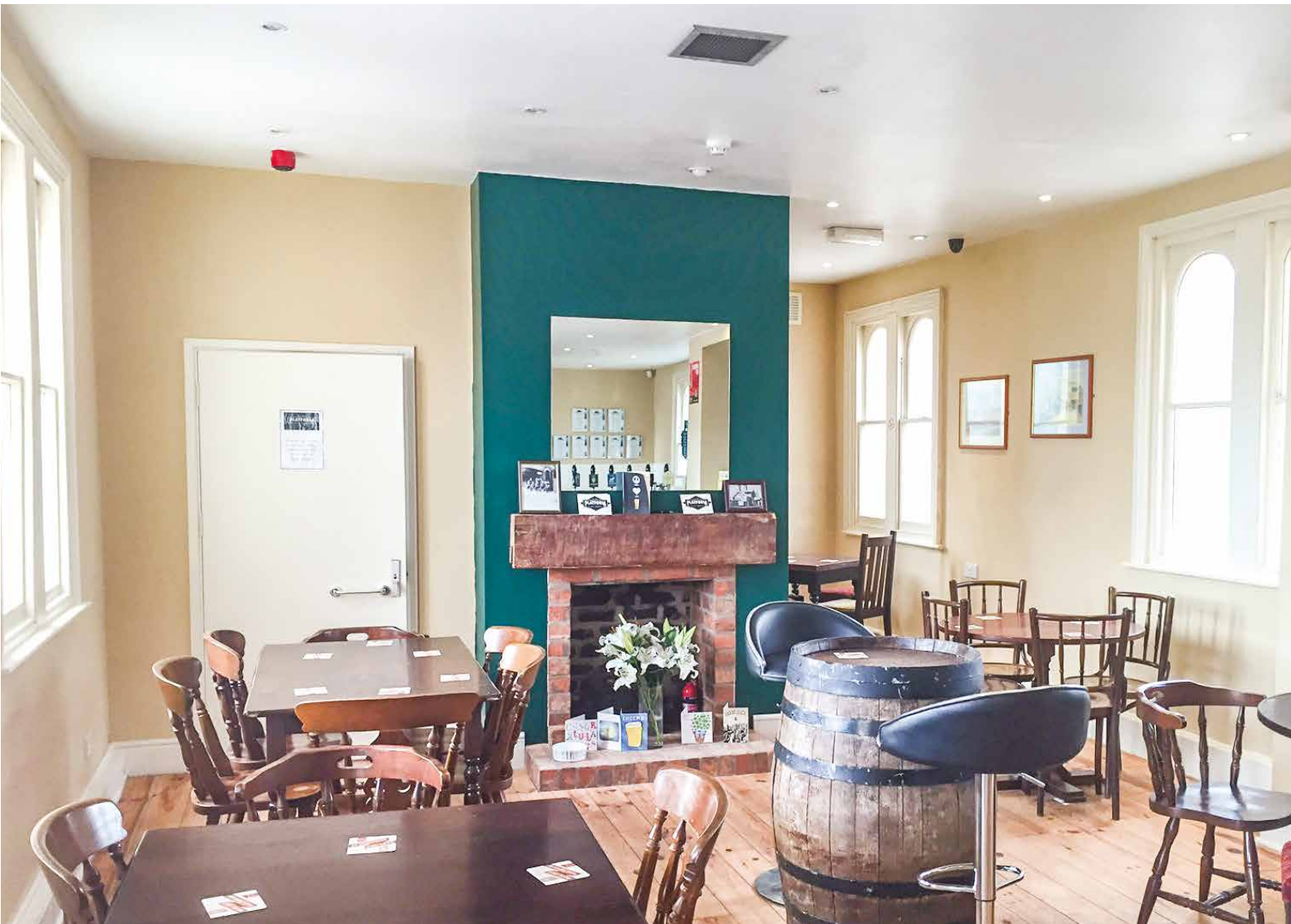
KEIM OPTIL®

KEIM Optil is a premium quality sol-silicate paint specifically formulated for elegant interior applications, available in a wide range of colours including bold and expressive colour shades.

KEIM Optil, using sol-silicate technology, is developed for direct application onto both mineral substrates and over sound existing paint coatings. It is a modern mineral paint ideal for application onto historic and contemporary buildings.

KEIM Optil is highly vapour permeable with no added preservatives, solvents or plasticisers.

KEIM Optil is breathable, forming a microcrystalline structure with the substrate when applied, which allows the free passage of vapour from the substrate whilst preventing ingress of moisture. This microcrystalline structure gives a high level of light reflectance, resulting in energy savings through reduction in lighting levels. KEIM Optil is inherently non flammable and mould and fungal resistant.



KEIM OPTIL®
TECHNICAL INFORMATION

1 Field of application

For all unpainted or previously painted conventional interior wall and ceiling surfaces. Particularly suitable for the creation of interior designs with specific requirements for high colour intensity.

2 Product properties

- Water vapour permeable, non film forming, and micro-porous
- Multi purpose application
- Abrasion resistant
- Non flammable - A2-s1, d0
- Intense and lightfast colour shades
- Outstanding opacity
- No solvents and plasticisers added
- Certified resistance to mould growth
- Low environmental impact
- Natureplus certification
- Cradle to Cradle Certified®

Colour shades
White and in accordance with the KEIM Exclusiv and Avantgarde colour swatches.

Keim Optil s_d: ≤ 0.01m, class 1

VOC Content: 0-8g/l VOC (white), 0-30g/l VOC (colour)

Application instructions

3 Substrate preparation
Highly absorbent or friable substrates should be treated with KEIM Granital Dilution. A base coat of KEIM Optil Grob (textured finish) is optional for substrates which have repaired or filled areas.

Application
KEIM Optil should be applied as a two coat undiluted system. KEIM Optil can be applied by brush, roller, or, air-less spray with a minimum period of 12 hours between coats

Consumption
Approx. 0.22lt/m^2 for two coats onto a smooth surface.

Consumption rates are offered for guideline purposes only and are quoted for smooth surfaces. Actual rates are the responsibility of the applicator. Project specifications should be referred to for specific rates.

Cleaning of tools
Clean immediately after use with water

4 Packaging
5lt & 12.5lt containers

natureplus®

CERTIFIED cradle to cradle SILVER



KEIM ECOSIL®ME

KEIM Ecosil-ME is a high performance, environmentally friendly mineral paint for interior use. KEIM Ecosil-ME is the only internal silicate paint which optimises air quality, making use of the MiNox™ effect.

KEIM Ecosil-ME has been developed to meet the demand for a truly environmentally friendly paint for interior application. Water based, solvent free, non allergenic, odourless and breathable it is ideally suited for decoration of interior areas, in particular for people with allergies, and for areas where relocation of occupants during decoration is impractical.

KEIM Ecosil-ME is breathable and anti-condensation, forming a microcrystalline structure with the substrate when applied, which allows the free passage of vapour from the substrate whilst preventing ingress of moisture. This microcrystalline structure gives a high level of light reflectance, resulting in energy savings through reduction in lighting levels. KEIM Ecosil-ME is inherently non flammable and mould and fungal resistant.

KEIM Ecosil-ME and the MiNox™ effect

The MiNox™ effect works by utilising light energy to neutralise pollution. The photo-catalyst, TiO_2 (titanium dioxide) is added to KEIM Ecosil-ME as pigment. Energy is absorbed from sunlight and activates the catalyst. The photo-active pigment can decompose organic pollutants and odours, transforming these materials into small, harmless components. KEIM Ecosil-ME neutralises noxious gases and pollutants, including industrial and traffic pollution, furniture and carpet cleaning solutions, cigarette smoke, formaldehyde, acetaldehyde, fatty substances and stearates.

KEIM ECOSIL®ME TECHNICAL INFORMATION

1 Field of application

For all mineral plasters, concrete, plasterboard and sound previously painted surfaces (not suitable for pure gypsum surfaces).

2 Product properties

- Water vapour permeable, non film forming, and micro-porous
- Abrasion resistant
- Non flammable - A2-s1, d0
- Intense and lightfast colour shades
- Outstanding opacity
- No solvents and plasticisers added
- Suitable for allergy sufferers
- Antibacterial effect
- Resistant to mould growth
- Low environmental impact
- Photocatalytic effect
- Disinfectant resistance
- Cradle to Cradle Certified®

Colour shades
White and in accordance the KEIM Exclusiv Palette with specials available. Not available in full tone colours (9001-9010).

KEIM Ecosil-ME s_d: ≤ 0.02m

VOC Content: 0-1g/l VOC

3 Application instructions

Substrate preparation
Highly absorbent or friable substrates should be treated with KEIM Granital Dilution. A base coat of KEIM Ecosil Grund is required for previously painted/ stripped surfaces or as an option onto substrates which have repaired or filled areas

Application
Onto unpainted surfaces KEIM Ecosil-ME should be applied as a two coat system applied by brush or roller, working well into all surfaces, with a minimum period of 5 hours between coats.

For previously painted surfaces KEIM Ecosil Grund should be used as a first coat

Consumption
Approx. 0.3lt/m^2 KEIM Ecosil-ME for a smooth surface.

Consumption rates are offered for guideline purposes only and are quoted for smooth surfaces. Actual rates are the responsibility of the applicator. Project specifications should be referred to for specific rates.

Cleaning of tools
Clean immediately after use with water.

4 Packaging

5lt & 12.5lt containers

natureplus®

CERTIFIED cradle to cradle SILVER



KEIM INNOSTAR®

KEIM Innostar is an innovative interior paint, with excellent coverage meaning that in the majority of cases only one coat is required, even onto new, unpainted plaster, without the need for undercoats or mist coats.

KEIM Innostar is environmentally friendly, quick and easy to use. KEIM Innostar is free from plasticisers, solvents and preservatives and is practically odour-free so rooms can be occupied quickly after application.

KEIM Innostar – Interior one coat paint system.

KEIM INNOSTAR®
TECHNICAL INFORMATION

1 Field of application

KEIM Innostar has excellent covering capacity in combination with an outstandingly elegant white colour shade. It is suitable for all interior wall and ceiling surfaces.

KEIM Innostar can be used for new, unpainted or previously painted surfaces and is ideal for large areas. KEIM Innostar has outstanding opacity so that one coat application is almost always sufficient.

2 Product properties

- Ultra-covering
- High degree of whiteness
- Very low-odour
- Highly permeable
- Ecologically sound
- Matt surface
- Solvent and plasticiser-free
- Incombustible - A2-s1, d0
- Nature-plus certification
- Disinfectant resistance
- Cradle to Cradle Certified®

KEIM Innostar s_d: ≤ 0.01 m

Colour Shades: White, KEIM Palette Exclusive and Avantgarde swatch.

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. When all surfaces are clean, sound, wind dry, dust free and free from all surface contaminants, decoration using KEIM Innostar may proceed.

Application
KEIM Innostar should be applied as a single coat by brush, roller or airless spray.

Consumption
Approx. 0.125lt/m2

Consumption rates are offered for guideline purposes only and are quoted for smooth surfaces. Actual rates are the responsibility of the applicator. Project specifications should be referred to for specific rates.

Cleaning of tools
Clean immediately after use with water.

4 Packaging
5 lt & 12.5 lt containers

natureplus®

CERTIFIED cradle to cradle SILVER

PRE-TREATMENT

Prior to decorating internal surfaces, ensuring effective pre-treatment will significantly extend the longevity and protection of the painted system. This is particularly important when redecorating previously painted surfaces.

- All loose, flaking and unstable material must be identified and thoroughly removed. Unstable paint coatings should be identified and removed (KEIM Dispersion Remover Paint Stripper available).
- Any mould and fungal growth must be thoroughly removed using wire brushes to remove all growths and then treated with KEIM Algicid.
- Surfaces should be repaired/re-plastered using appropriate mineral based materials and dressed back to the surrounding substrate. KEIM range of fillers and render materials available.
- Any newly repaired areas must be allowed to dry out for a minimum period of 15 days (28 days for NHL (Natural Hydraulic Lime)) prior to the application of KEIM Mineral Paints.
- KEIM Mineral Paints should be applied onto dry surfaces where the moisture content on or near the surface (to a depth of 5mm approximately) should be no greater than 18% by volume.
- Specific substrate issues such as friable surfaces, efflorescent salts and added water repellence can be addressed using the range of KEIM primers and treatments.
- All surfaces must be thoroughly washed down with clean cold water to remove all surface dirt and dust.

When all surfaces are clean, sound, dry, dust free and free from all surface contaminants, decoration using KEIM Mineral Paints may proceed.



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KEIM. COLOURS FOR EVER.

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