

GeoLite® MicroSilicato



Certified, eco-friendly mineral geo-paint with a geo-active, silicate micro particle base, to regenerate and protect concrete surfaces by crystallisation, ideal for use in GreenBuilding.

GeoLite® MicroSilicato is an opaque, “mottled” effect filling geo-paint for the monolithic protection of new or restored concrete. It is anti-carbonation, resistant to atmospheric agents, algae and mould and can be applied by roller or brush to reinforced concrete structures such as beams, pillars, front sections, facades, decorative elements, cornices and civil engineering structures such as bridges, viaducts and tunnels.



GREENBUILDING RATING®

GeoLite® MicroSilicato Rating based on average colour formulations

- Category: Organic Mineral products
- Repair and reinforcement of reinforced concrete and masonry

Solvent-free

No environmental hazard rating

Non-toxic and non-hazardous

RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS

PRODUCT STRENGTHS

- **CEO-PAINT.** The first paint with a geo-active silicate micro-particle base to regenerate and protect new or restored concrete surfaces.
- **MONOLITHIC.** The first geo-paint to create a monolithic anti-carbonation coating that bonds with the underlying support to form a single element.
- **CRYSTALLISING.** The naturally stable monolithic protection of GeoLite® MicroSilicato crystallises to the substrate to guarantee protection from water and atmospheric agents and the typical durability of a mineral rock.
- **QUICK.** Can be applied after 4 hours on concrete that has been restored with GeoLite® 10 or GeoLite® 40 geo-mortar.



ECO NOTES

- With a geo-active, silicate micro particle base
- Breathable
- Eco-friendly concrete restoration
- Water-based, limits the risk of loads that could be harmful and dangerous to the environment during storage and transportation
- Improved on-site safety guaranteed

AREAS OF USE

Use
Regenerative and protective decoration of:

- concrete structures and infrastructures and restored elements with GeoLite® geo-mortars products or with traditional mortars that have reached a final dimensional stability
- front sections of balconies and cornices
- facades of residential, commercial and industrial buildings
- exposed aged concrete
- conventional plaster/render coats and in general on all types of mineral substrates made of aged hydraulic binders
- for the protection of reinforcement systems created using GeoLite® or GeoCalce® matrix

Suitable for decorative work using well-anchored and compact synthetic paints and coverings, that do not re-emulsify.
Suitable for internal and external use.

Do not use
On dehumidifying plaster/render coats, on wet substrates (not cured), on substrates which are dirty, powdery. On gypsum-based substrates.
For the containment or continuous contact with water. On substrates subject to water infiltrations and/or capillary moisture rising.

* ÉMISSION DANS L'AIR INTÉRIEUR Information sur le niveau d'émission de substances volatiles dans l'air intérieur, présentant un risque de toxicité par inhalation, sur une échelle de classe allant de A+ (très faibles émissions) à C (fortes émissions).

INSTRUCTIONS FOR USE

Preparation of substrates

Surfaces to be protected must be perfectly well cured, stable and clean. All weakened parts, any layers of old paint which have begun to peel, dust, parting compounds and deposits of moss, lichen and algae are to be removed. Cleaning must be carried by pressure washing, hydro-sandblasting or sandblasting. Small operations can be carried out by cleaning with a metal brush.

Application

GeoLite® MicroSilicato is ready-to-use. Always remix the product before application. According to the applications and the type of substrate, GeoLite® MicroSilicato can be diluted with water up to 8% by volume (maximum dilution allowed) for the first and second coat. GeoLite® MicroSilicato must be applied carefully in two coats over the entire surface to be protected, with a brush or roller, taking care to apply the colour in a criss-cross, irregular manner.

After applying the first coat of GeoLite® MicroSilicato, wait at least 12 hours before applying the subsequent coat.

GeoLite® MicroSilicato can be applied both externally and internally in several coats according to the level of coverage and chromatic effect required.

In cases where different lots of coloured product are used, or when completing a job in which a tintometer has been used, it is advisable to mix the various quantities together so as to avoid slight differences in tone. Always restart application from a corner.

Cleaning

GeoLite® MicroSilicato is a natural product: the tools can be cleaned with water before the product hardens.

SPECIAL NOTES

Apply GeoLite® MicroSilicato at temperatures from +5 °C to +30 °C and relative ambient humidity lower than 80%. In the event of strong wind, do not apply the product.

When the product is applied externally the scaffolding must be protected with suitable sheets to protect it from direct sunlight, wind and rain during the first 72 hours.

Particular care must be taken when carrying out decorations over full backgrounds. Avoid interruptions between scaffolding levels or on large continuous surfaces.

When applying internally it is recommended that the rooms be well aired after application, to promote hardening of the binder by silication.

Given the purity of the GeoLite® MicroSilicato formula and its high alkalinity, adjacent surfaces must be protected during application.

Contact with silicate products can damage urban furniture and glass, ceramic, natural stone, terracotta and metals.

Any splashes of product must be removed immediately with clean water.

ABSTRACT

Decoration, regeneration and protection of perfectly stable and cured concrete surfaces, whether new or restored, by crystallisation to the support of certified, eco-friendly, mineral geo-paint with a geo-active silicate micro-particle base, specific for the decoration, regeneration and guaranteed, long-lasting monolithic protection of concrete, such as GeoLite® MicroSilicato by Kerakoll® Spa, GreenBuilding Rating® 3, that is CE-marked and compliant with the performance requirements of Standard EN 1504-2 (protection of surfaces) and in accordance with Principles 1, 2 and 8 of EN 1504-9.

TECHNICAL DATA COMPLIANT WITH KERAKOLL QUALITY STANDARD

Appearance	white or coloured paste	
Chemical nature of binder	pure potassium silicate	
Shelf life	≈ 12 months in the original packaging	
Warning	protect from frost	
Pack	buckets 14 ℓ – 4 ℓ	
Temperature range for application	from +5 °C to +30 °C	
Dilution with water 1 st and 2 nd coat	max 8% by volume	
Waiting time between 1 st and 2 nd coat	≈ 12 hrs	
Rain interval at 20 °C and RH ≤ 80%	at least 72 hrs	
pH on packaging	≈ 12	
Viscosity	≈ 30000 cps, rotor 6 RPM 10	Brookfield method
Volumetric mass (specific weight) at +20 °C	≈ 1.5 kg/ℓ	
Vapour permeability (Sd)	≤ 0.008	
Coverage on fine-texture finished substrate	≈ 0.35 ℓ/m ² for two coats	

Values taken at +21 °C, 60% R.H. and no ventilation. Data may vary depending on specific conditions at the building site.

PERFORMANCE

HIGH-TECH

Performance characteristic	Test Method	Requirements of standard EN 1504-2 (C)	GeoLite® MicroSilicato Performance
Carbon dioxide permeability	EN 1062-6	$s_D (CO_2) > 50 \text{ m}$	$s_D (CO_2) > 50 \text{ m}$
Permeability to water vapour	EN ISO 7783-2	Reference class	class I: $s_D < 5 \text{ m}$
Capillary absorption and water permeability	EN 1062-3	$w < 0.1 \text{ kg}\cdot\text{m}^{-2}\cdot\text{hrs}^{-0.5}$	$w < 0.1 \text{ kg}\cdot\text{m}^{-2}\cdot\text{hrs}^{-0.5}$
Bond strength by pull off	EN 1542	$\geq 0.8 \text{ MPa}$	$> 0.8 \text{ MPa}$
Thermal compatibility with freeze/thaw cycles with de-icing salts	EN 13687-1	after cycles, evaluation of change in surface	none
Hazardous substances		compliant with point 5.4	

WARNING

- Product for professional use

- abide by any standards and national regulations
- any dilution must take place once only before application
- scaffolding must be screened with suitable sheets to protect from sun, wind and rain during application and during the curing period (72 hours)
- we recommend obtaining all the material at the same time
- on large surface areas, gaps must be left around joints, drain pipes, corners and edging, or insert technical joints
- if necessary, ask for the safety data sheet
- for any other issues, contact the Kerakoll Worldwide Global Service +39 0536 811 516 - globalservice@kerakoll.com

The Rating classifications refer to the GreenBuilding Rating® Manual 2013. This information was last updated in November 2019 (ref. GBR Data Report - 12.19); please note that additions and/or amendments may be made over time by KERAKOLL SpA, for the latest version, see www.kerakoll.com. KERAKOLL SpA shall therefore be liable for the validity, accuracy and updating of information provided only when taken directly from its institutional website. The technical data sheet given here is based on our technical and practical knowledge. As it is not possible for us to directly check the conditions in your building yards and the execution of the work, this information represents general indications that do not bind Kerakoll in any way. Therefore, it is advisable to perform a preliminary test to verify the suitability of the product for your purposes.



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