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.

CE EN 1504-2(C) | PI METHOD 1.3 EN 1504-2 | MC METHOD 2.3 EN 1504-2 | IR METHOD 8.3 EN 1504-2 | CONTRIBUTES TO LEED POINTS

GREENBUILDING RATING®

GeoLite® MicroSilicato
- Category: Organic Mineral Products
- Class: Mineral geo-mortars for monolithic concrete restoration
- Rating: Eco 3

eco3	Regional Mineral ≥ 30 %	Low Emission IAQ VOC Indoor Air Quality	SLV REDUCED Solvent ≤ 5 g/kg	Low Ecological Impact	Health Care
			✓	✓	✓
			Reduced solvent content 3 g/kg	No environmental hazard rating	Non-toxic and non-hazardous

RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS

PRODUCT STRENGTHS

- **GEO-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® MicroSilicate 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
- domestic plaster/render coats and in general on all types of mineral substrates made of aged hydraulic binders

Suitable for internal and external use.

Do not use
On wet substrates (not cured); on substrates which are dirty, non-cohesive, powdery. On previous paint coats or lime putty coverings. On gypsum-based substrates..
For the containment or continuous contact with water.

INSTRUCTIONS FOR USE

Preparation
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.

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INSTRUCTIONS FOR USE

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® MicroSilicate 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

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 regeneration and guaranteed, long-lasting monolithic protection of concrete, such as GeoLite® MicroSilicato by Kerakoll® Spa, GreenBuilding Rating® Eco 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	14 ℓ buckets
Temperature range for application	from +5 °C to +30 °C
Dilution with water 1st and 2nd coat	max 8% by volume
Waiting time between 1st and 2nd coat	≈ 12 hrs
Rain interval at 20 °C and RH ≤ 80%	at least 72 hrs
pH on packaging	≈ 12
Brookfield viscosity RVT6 RPM10	≈ 30,000 cps
Volumetric mass (specific weight) at +20 °C	≈ 1,5 kg/ℓ
Vapour permeability (Sd)	≤ 0,008
Coverage on finished support	≈ 0.35 ℓ/m² for two coats

Values taken at +20 ± 2 °C, 65 ± 5% R.H. and no ventilation. Data may vary depending on specific conditions at the building site.

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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 m	s_D (CO_2) > 50 m
Permeability to water vapour	EN ISO 7783-2	Reference class	class I: SD < 5 m
Capillary absorption and water permeability	EN 1062-3	w < 0,1 kg·m^{-2}·h$^{-0,5}$	w < 0,1 kg·m^{-2}·h$^{-0,5}$
Bond strength by pull off	EN 1542	≥ 0.8 MPa	> 2 MPa
Thermal compatibility with freeze/thaw cycles with de-icing salts	EN 13687-1	after cycles, evaluation of change in surface	none
Chloride ion diffusion	UNI 7928	null	null
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 - globalservice@kerakoll.com

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