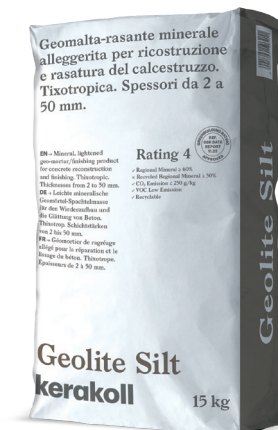


Geolite Silt

Mineral, lightened geo-mortar/finishing product for concrete reconstruction and finishing.

Geolite Silt is a high coverage thixotropic geo-mortar for repairing, finishing and protecting reinforced concrete structures. Specifically designed for rapid non-structural interventions requiring a high aesthetic level.



Rating 4

1. Thixotropic, class R2
2. Semi-rapid setting 30 min
3. High coverage and workability
4. Thicknesses from 2 to 50 mm in a single coat
5. Based on geo-binder
6. Paintable after 4 hours

- ✓ Regional Mineral $\geq 60\%$
- × Recycled Regional Mineral $\geq 30\%$
- ✓ CO₂ Emission ≤ 250 g/kg
- ✓ VOC Low Emission
- ✓ Recyclable

Areas of application

→ Use

Localised and generalised protective finishing of concrete surfaces of any nature and size.
Non-structural repair of weakened concrete parts.

Smoothing and filling of surface defects such as construction joints, honeycombs, holes.
Repair of concrete decorative elements on any type of floor.

Instructions for use

→ Preparation of substrates

Before applying Geolite Silt it is necessary to:

- restore the concrete surface and roughen it by mechanical scarification or hydro-demolition to a depth of ≥ 0.5 mm, equivalent to level 5 of the Test kit for preparation of reinforced concrete and masonry substrates, thoroughly removing all weakened concrete;
- clean the treated substrate using compressed air or a high pressure washer;
- saturate with water until the substrate is saturated yet with no excess water on the surface. Alternatively on horizontal concrete surfaces, apply Geolite Base on a dry substrate in order to ensure regular absorption and promote the natural crystallisation of the geomortar.

→ Preparation

Prepare Geolite Silt by mixing 15 kg of powder with the amount of water indicated on the packaging (we advise using the whole bag).
To prepare the mixture, empty the product into a

bucket and stir with a mortar mixer or a drill-type mixing device with a low-rev agitator until the mixture is smooth and has no lumps.

→ Application

- In localised and/or generalised non-structural repair work in which Geolite Silt is applied in thicknesses from 2 mm to 50 mm (maximum per layer), apply the mortar by hand using a trowel.
- Geolite Silt can be applied manually (with a steel spreader) in a minimum thickness of 2 mm, to make a protective finishing.
- Float with a sponge float as soon as the mortar achieves the right consistency; timing can vary, depending on temperature and thickness.
Allow to cure during the first 24 hrs.

→ Cleaning

Residual traces of Geolite Silt can be removed from tools and machines using water before the product hardens.

Certificates and marks



* 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).

Abstract

Localised or generalised repair, smoothing and non-structural monolithic repair of concrete and simultaneous millimetre-thick protective finishing of surfaces by application with a trowel, after adequate preparation and wetting of the substrates until fully saturated, of a certified, mineral, thixotropic, semi-rapid-setting (30 min.) geo-mortar, such as Geolite Silt by Kerakoll Spa, GreenBuilding Rating 4, CE-marked and compliant with the performance requirements of Standards EN 1504-3, Class R2 for non-structural repair and finishing, EN 1504-2 for the protection of surfaces and EN 1504-6; according to Principles 2, 3, 4 and 8 as defined by Standard EN 1504-9.

Technical Data compliant with Kerakoll Quality Standard

Appearance	Powder	
Apparent volumetric mass	≈ 1280 kg/m ³	UEAtc
Aggregate mineral content	silicate - carbonate	
Grading	0 – 0.5 mm	EN 12192-1
Shelf life	≈ 12 months from production in the original sealed packaging, protect from humidity	
Pack	15 kg bags	
Mixing water	≈ 3.1 l / 1 bag 15 kg	
Flow of the mixture	140 – 160 mm	EN 13395-1
Density of the mixture	≈ 1480 kg/m ³	
pH of the mixture	≥ 12,5	
Start/End of setting	≈ 25-30 min. (≈ 150-165 min. at +5 °C) – (≈ 20-25 min. at +30 °C)	
Temperature range for application	from +5 °C to +40 °C	
Minimum thickness	2 mm	
Maximum thickness per layer	50 mm	
Coverage	≈ 12 kg/m ² per cm of thickness	

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

Performance			
VOC Indoor Air Quality (IAQ) - Volatile organic compound emissions			
Conformity	EC 1 plus GEV-Emicode	GEV Certified 15857/11.01.02	
HIGH-TECH			
Performance characteristic	Test Method	Requirements of EN 1504-3 class R2	Geolite Silt performance in CC and PCC conditions
			> 5 MPa (24 hrs)
Compressive strength	EN 12190	≥ 15 MPa (28 days)	> 10 Mpa (7 days) > 15 MPa (28 days)
Flexural tensile strength	EN 196-1	None	> 1 MPa (24 hrs) > 3 MPa (7 days) > 4 MPa (28 days)
Adhesive bond	EN 1542	≥ 0.8 MPa (28 days)	> 1.8 MPa (28 days)
Modulus of elasticity under compression	EN 13412	None	13 GPa
Thermal compatibility with freeze/thaw cycles with de-icing salts	EN 13687-1	bond strength after 50 cycles ≥ 0,8 MPa	> 1,8 MPa
Capillary absorption	EN 13057	≤ 0.5 kg·m ⁻² ·h ^{-0.5}	< 0.5 kg·m ⁻² ·h ^{-0.5}
Chloride ion content (determined on the product in powder form)	EN 1015-17	≤ 0.05%	< 0.05%
Reaction to fire	EN 13501-1	Euroclass	A1
	Test Method	Requirements of standard EN 1504-2 (C)	Performance Geolite Silt
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	≥ 1 MPa	> 1,8 MPa
Linear shrinkage	EN 12617-1	≤ 0.3%	< 0.3%
Thermal expansion coefficient	EN 1770	α _T ≤ 30·10 ⁻⁶ ·k ⁻¹	α _T < 30·10 ⁻⁶ ·k ⁻¹
Hazardous substances		compliant with point 5.4	
Aggregate performance characteristic	Test Method	Requirements of standard UNI 8520-22	Geolite Silt aggregate performance
Alkali-aggregates reaction	UNI 11504	reactivity class	NR (non-reactive)

Warning

- Product for professional use
 - abide by any standards and national regulations
 - store the product away from any sources of humidity and out of direct sunlight
 - use at temperatures between +5 °C and +40 °C
 - do not add binders or additives to the mixture
 - do not apply to dirty, loose and flaking surfaces
 - do not apply on gypsum, metal or wood
- following application, protect from direct sunlight and wind
 - allow the product to cure during the first 24 hours
 - 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 September 2022 (ref. GBR Data Report - 10.22); 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.