

# Biocalce® Silicato Fondo

**Certified, eco-friendly natural intermediate filling coat based on pure stabilized potassium silicate, ideal for use in GreenBuilding and Historical Restoration. Contains raw materials of only natural origin. Provides natural ventilation to improve indoor air quality, naturally bacteriostatic and fungistatic, safeguards the health of operators.**

Biocalce® Silicato Fondo is specifically intended for evening out absorption and improving the solidity and compactness of uneven mineral substrates before applying decorative silicate cycles. Naturally protected with pine oil in accordance with DIN 18363.



**GREENBUILDING RATING®**

rating 4

- Pollution Reduction (IAQ Acrit)
- Low Emission (IAQ VOC)
- Bacteriostatic (IAQ Bact)
- Health Care (Smiley face)
- Low Ecological Impact (Leaf)

Highly effective (5/5)

No development of bacteria or fungi

Non-toxic and non-hazardous

No environmental hazard rating



**NATURAL INGREDIENTS**

	Pure potassium silicate
	Pure fine white Carrara marble
	Pine oil

With less than 5% added organic emulsion, as required under DIN 18363

**PRODUCT STRENGTHS**

- Naturally breathable, allows walls to breath
- Uniforms substrate absorption, thereby guaranteeing the even colour of the subsequent paint coat
- Excellent coverage of crazing
- Bacteriostatic and fungistatic product (CSTB method)\*\*

**AREAS OF USE**

**Use**

Biocalce® Silicato Fondo is suitable for evening out absorption and improving the solidity and compactness of the surface texture in new cured or old plasters/renders; in substrates made of hollow clay blocks or old finishing coats that are well anchored to the masonry substrate. Suitable for surfaces that have been partially repaired or patched using different levels of porosity and absorption materials. To ensure an uniform curing and even colour of the subsequent decorative silicate cycles. Biocalce® Silicato Fondo is suitable for the substrate preparation of KlimaExpert insulating panelling systems before applying Biocalce® Silicato Puro fine plasters/renders. Biocalce® Silicato Fondo is particularly well suited to achieve decorations of high aesthetic quality in Edilizia del Benessere® (Building for Wellness) in which the all-natural ingredients guarantee compliance with the required levels of breathability and permeability to water vapour, guaranteeing effective protection from atmospheric and environmental agents at the same time. Biocalce® Silicato Fondo is suitable for decoration in Historical Restoration projects, where the choice of traditional materials such as pure potassium silicat guarantees conservation interventions in full respect of the existing structures and original materials.

**Do not use**

On wet substrates (not cured), on substrates which are dirty, non-cohesive or powdery. On old paints or lime putty coverings, on gypsum substrates. On walls subject to capillary moisture rising without prior application of dehumidifying plasters/renders.

**INSTRUCTIONS FOR USE**

The instructions for use for applications in heat-insulating systems refer, where required, to the Italian Technical Report UNI / TR 11715 "Heat-insulating products for buildings - Design and installation of external heat-insulating systems (ETICS)".

**Preparation of substrates**

The support must be treated in advance with Biocalce® Silicato Consolidante.  
The substrate must be clean with appropriate means to make it free from loose debris, dust and mould.  
New plaster/render patch layers must be left to cure.

\* 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).

\*\* Tests carried out according to CSTB method, bacterial and fungal contamination

## INSTRUCTIONS FOR USE

On surfaces coated with paint or partially deteriorated decorative coatings, remove all loose debris and particles unbonded to the substrate.

The substrate must be dry at the time of application.

For the treatment of substrates other than those mentioned and for additional information on the types of intervention to be carried out, we recommend to consult Kerakoll's Guide to decorating and preparing substrates.

### Preparation

Mix carefully before use. Use the product undiluted or diluted with Biocalce® Silicato Consolidante to a maximum of 25% in volume, depending on porosity and degree of absorption of the substrate. For internal surfaces Biocalce® Silicato Fondo can be diluted with clean water to a maximum of 25% by volume.

Biocalce® Silicato Fondo filling coat may be coloured by adding up to 25% of Biocalce® Silicato Puro Pittura to obtain a coloured base before application of Biocalce® Silicato Puro fine plasters/renderers.

### Application

Apply one or more coats with a brush and/or wool roller, according to the type of the facades and support. Overlay the silicate-based cycle after 12 hours.

Apply Biocalce® Silicato Fondo at temperatures from +8 °C to +30 °C and relative humidity lower than 80%. Protect from frost.

For applications in heat-insulating systems, the indications given refer to UNI / TR 11715 - paragraph 9.

### Cleaning

Biocalce® Silicato Fondo is a natural product and tools can be cleaned using only water before the product hardens.

## SPECIAL NOTES

The subsequent paint layer should be applied when Biocalce® Silicato Fondo has hardened completely, and in any case not less than 12 hours after completion of the preceding layer.

When applying, check the full coverage of the underlying masonry. In presence of clear residue, a second coat is recommended.

Given the purity of the Biocalce® Silicato Fondo 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

*Biocalce® Silicato Fondo is a specific, filling layer with a pure silicate, pine oil, natural fibre base, with fine and reactive lamellar fillers to correct imperfections and to even out the absorption of the substrates before applying decorative silicate cycles.*

*Biocalce® Silicato Fondo can be diluted adding Biocalce® Silicato Consolidante to a maximum of 25% in volume, this all depends on the porosity of the support.*

*Provides natural ventilation to improve indoor air quality, naturally bacteriostatic and fungistatic, GreenBuilding Rating® 4. Specifically intended for uneven or micro-cracked substrates in Edilizia del Benessere® (Building for Wellness) and Historical Restoration and conservation of Italian superintendence for environmental and architectural heritage listed buildings\*\*.*

*Biocalce® Silicato Fondo coverage: ≈ 0.25 l/m<sup>2</sup> per single coat.*

*\*\* Tests carried out according to CSTB method, bacterial and fungal contamination*

## TECHNICAL DATA COMPLIANT WITH KERAKOLL QUALITY STANDARD

Appearance	white liquid
Shelf life	≈ 6 months from production in the original sealed packaging
Warning	protect from frost, avoid direct exposure to sunlight and sources of heat
Pack	4 / 14 l buckets
Temperature range for application	from +8 °C to +30 °C
pH on packaging	≈ 12
R.H. limit value	≤ 80%
Volumetric mass (specific weight)	≈ 1.6 kg/l
Dry 105	≈ 66%
Fully dry at 23 °C and 80% R.H	72 hrs
Coverage	≈ 0.15 – 0.25 l/m <sup>2</sup> for each coat

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

## PERFORMANCE

### ACTIVE INDOOR AIR QUALITY (IAQ) - DILUTION OF INDOOR POLLUTANTS \*

	Flow	Dilution	
Toluene	200 µg m <sup>2</sup> /h	+109%	JRC method
Pinene	247 µg m <sup>2</sup> /h	+48%	JRC method
Formaldehyde	6692 µg m <sup>2</sup> /h	+2%	JRC method
Carbon dioxide (CO <sub>2</sub> )	346 mg m <sup>2</sup> /h	+249%	JRC method
Humidity (Humid Air)	59 mg m <sup>2</sup> /h	+247%	JRC method

### BIOACTIVE INDOOR AIR QUALITY (IAQ) - BACTERIOSTATIC ACTION \*\*

Enterococcus faecalis	Class B+ no proliferation	CSTB method
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### BIOACTIVE INDOOR AIR QUALITY (IAQ) - FUNGISTATIC ACTION \*\*

Penicillium brevicompactum	Class F+ no proliferation	CSTB method
Cladosporium sphaerospermum	Class F+ no proliferation	CSTB method
Aspergillus niger	Class F+ no proliferation	CSTB method

### HIGH-TECH

Permeability to water vapour	class V1 (high)	EN 7783-2
Permeability to water in liquid form	class W3 (low)	EN 1062-3
Respects the Kuenzle theory	w < 0.5 kg /m <sup>2</sup> ·h <sup>0.5</sup> – SD < 2 m	DIN 18550

\* Tests carried out according to JRC method - Joint Research Centre - European Commission, Ispra (Varese, Italy) - to measure the reduction of polluting substances in indoor environments (Indoortron Project). Flow and speed in proportion to a standard exterior paint (0.5 mm).

\*\* Tests carried out according to CSTB method, bacterial and fungal contamination

## WARNING

### - Product for professional use

- abide by any standards and national regulations
- use at temperatures between +8 °C and +30 °C
- make sure the substrate is not frozen
- do not apply in the event of strong wind, strong sunlight, rain or if there is a risk of frost in the following 24 hours
- protect from direct rainfall until silication is complete (72 hours without rain at a constant temperature of +23 °C and less than 80% humidity)
- do not apply to dirty, loose and flaking surfaces
- 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](mailto:globalservice@kerakoll.com)

The Rating classifications refer to the GreenBuilding Rating® Manual 2013. This information was last updated in November 2020 (ref. GBR Data Report - 1220); please note that additions and/or amendments may be made over time by KERAKOLL SpA, for the latest version, see [www.kerakoll.com](http://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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