Biocalce® Tinteggio

Certified, eco-friendly, natural wall paint based on selected pure CL 90-S lime putty compliant with EN 459-1 and natural coloured soils, for the highly breathable decoration of plaster/render coats, ideal for use in GreenBuilding and Historical Restoration. Contains raw materials of only natural origin. Provides natural ventilation to improve indoor air quality, natural bacteriostatic and fungistatic effect. Safeguards the health of both operators and the environment.

Biocalce® Tinteggio, natural lime paint, is especially recommended for the decoration of conventional and restoration render coats to achieve high-end decorative finishes.

GREENBUILDING RATING®

Biocalce® Tinteggio
- Category: Inorganic Natural Semi-fluids
- Mortars, plasters/renders and natural decoration

Rating based on average colour formulations

rating4

Pollution Reduced IAQ Active Indoor Air Quality	Low Emission IAQ Indoor Air Quality	Bacteriostatic IAQ Bioactive Indoor Air Quality	Health Care	Low Ecological Impact
Highly effective (5/5)		No development of bacteria or fungi	Non-toxic and non-hazardous	No environmental hazard rating

PRODUCT STRENGTHS

- Allows walls to breath
- Ideal for ensuring healthy interior living spaces for a greater psychophysical wellbeing
- Natural bacteriostatic and fungistatic classified B+ e F+ (CSTB method)**
- Outdoors, it gives new façades a traditional, aged look

NATURAL INGREDIENTS

	Pure CL90 lime putty
	Natural earth powder pigments and coloured minerals
	Pine oil

AREAS OF USE

Use
Natural lime putty for the decoration of conventional and restoration plaster/render coats. Biocalce® Tinteggio 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.
Biocalce® Tinteggio is suitable for decoration in Historical Restoration projects, where the choice of traditional materials such as natural lime, natural coloured earths and minerals, mixed in carefully-studied proportions, 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, powdery. On previous paint coats or lime putty coverings. On walls subject to capillary moisture rising without prior application of dehumidifying plasters/renders.

INSTRUCTIONS FOR USE

Preparation of substrates
The substrate must be cured, clean and solid, free from loose debris, dust and mould. Old plaster must adhere to the masonry structure and must be damage-free, dry, carefully cleaned to remove remaining traces of previous processes (lime putty coverings, old finishing coats, etc.) and suitably finished using products from the Biocalce® finishing line according to the level of finish and smoothness of the plaster.
Preparation of new or old substrates using products in the Biocalce® finishing line helps save time and colour product, guaranteeing a superior quality decorative layer.

* 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

KERAKOLL
The GreenBuilding Company

INSTRUCTIONS FOR USE

Treat surfaces in advance with Biocalce® Fondo or Biocalce® Fondo Universale according to the support finish level 24 hours before applying Biocalce® Tinteggio. Particular care must be taken during summer and when working in direct sunlight: provide for shade cloths.
In the presence of partial repairs or plasters/renders with a different degree of absorption, apply several coats of Biocalce® Fondo or Biocalce® Fondo Universale until the support is even.
Apply Biocalce® Fondo Universale before applying Biocalce® Tinteggio to indoor surfaces coated with gypsum, plasterboard or synthetic paints. In the case of plastered surfaces that have been repaired or patched, these must be allowed to cure for at least 30 days.
To even up the absorption in old or inconsistent substrates use one or more coats of Biocalce® Fondo according to the absorption found.
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
Biocalce® Tinteggio can be applied both externally and internally in several coats according to the level of coverage and chromatic effect required.
Dilute the first coat of Biocalce® Tinteggio with clean water to a maximum ratio of 40% by volume. The second coat must be diluted to a maximum of 20%; this all depends on the porosity of the support and the level of preparation.
Under no circumstances must more water be added to the mix during application.
Always use the same dilution ration in subsequent mixes.

Application
Biocalce® Tinteggio can be applied with ease using a brush alone, taking care to apply the colour using crossed, irregular strokes.
The base must always be treated in advance with Biocalce® Fondo or Biocalce® Fondo Universale in order to allow proper curing of the lime and fixing of the coloured earths.
Biocalce® Tinteggio is pigmented exclusively with natural earths, so there may be slight differences in colour between one batch and the next and slight chromatic variations in the final result according to the level of absorption in the supports or variable atmospheric conditions during application

Cleaning
Biocalce® Tinteggio is a natural product and tools can be cleaned using water before the product hardens.

SPECIAL NOTES

Apply Biocalce® Tinteggio at temperatures from +8 °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 15 days.
Rain may result in carbonation and/or surface percolation, coating the original colour with a veil of white.
Particular care must be taken when carrying out decorations over full backgrounds. Avoid interruptions between scaffolding levels or on large continuous surfaces. On intense shades, we recommend to apply the product wet on wet and without breaks, in order to avoid colour differences.
Touch-ups may vary depending on various factors and may be visible even after the product has dried.
On dark colours a blackboard effect may be visible when fingers are rubbed on the wall after the product has dried completely.
High environmental humidity, condensation and roughness of the support can favour the deposit of dust, spores and other sources of nourishment; they may generate the surface growth of micro-organisms.
When applying internally it is recommended that the rooms be well aired for a few days after application, to promote hardening of the binder by carbonation.
The product may show differences in shade on not suitably-prepared substrates.

ABSTRACT

*In Edilizia del Benessere® (Building for Wellness) and Historic Restoration highly hygroscopic and breathable decorative layers are created on internal and external plaster using natural coloured earths and pure lime putty (such as Biocalce® Tinteggio), naturally ventilated to help dilute indoor pollutants, naturally bacteriostatic and fungistatic, GreenBuilding Rating® 4**.*
Apply Biocalce® Tinteggio using brushes alone, after first treating the support with Biocalce® Fondo or Biocalce® Fondo Universale, making sure the product is carefully and evenly distributed. Apply the product in a minimum of two times or more depending on the level of coverage you want, on previously shaved funds with products from the finish line Biocalce® Intonachino.
Coverage Biocalce® Tinteggio: ≈ 0.3 l/m² for two coats.
*** Tests carried out according to CSTB method, bacterial and fungal contamination*

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TECHNICAL DATA COMPLIANT WITH KERAKOLL QUALITY STANDARD

Appearance	natural lime putty
Chemical nature of binder	CL 90-S calcium lime putty
Shelf life	≈ 12 months from production in the original sealed packaging
Warning	protect from frost, avoid direct exposure to sunlight and sources of heat
Pack	buckets 14 ℓ – 4 ℓ
Temperature range for application	from +8 °C to +30 °C
Waiting time between 1st and 2nd coat	≈ 12 hrs
Rain interval at +20 °C and RH ≤ 80%	at least 72 hrs
Dry to touch at +20 °C	≈ 4 hrs
pH on packaging	13.5 ± 0.5
Brookfield viscosity RVT6 RPM10	33.000 cp ± 500 cp
Volumetric mass (specific weight) at +20 °C	≈ 1.33 kg/ℓ
Coverage per m^2 on support finished with Biocalce® Intonachino Fino	≈ 0.2 – 0.3 ℓ/m^2 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.

PERFORMANCE

ACTIVE INDOOR AIR QUALITY (IAQ) - DILUTION OF INDOOR POLLUTANTS *			
Flow	Dilution		
Toluene	278 µg m^2/h	+27%	JRC method
Pinene	383 µg m^2/h	+48%	JRC method
Formaldehyde	6244 µg m^2/h	+38%	JRC method
Carbon dioxide (CO_2)	584 mg m^2/h	+62%	JRC method
Humidity (Humid Air)	71 mg m^2/h	+3%	JRC method
BIOACTIVE INDOOR AIR QUALITY (IAQ) - BACTERIOSTATIC ACTION **			
Enterococcus faecalis	Class B+ no proliferation		CSTB method
BIOACTIVE INDOOR AIR QUALITY (IAQ) - FUNGISTATIC ACTION **			
Penicillum 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			
Water vapour permeability coefficient (µ)	µ = 10		DIN 52615
Equivalent air layer (for 2 coats)	s_p = 0,0006 m		EN ISO 7783-2

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

* *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 interior paint (0.2 mm).*

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

WARNING

- **Product for professional use**
- abide by any standards and national regulations
- do not add water during application
- scaffolding must be screened with suitable sheets to protect from sun, wind and rain during application and during the curing phase (15 days)
- applying at temperatures below +8 °C with high atmospheric humidity, or failing to protect from rain in the first 15 days may result in carbonation and/or surface percolation which creates a white film over the original colour
- we recommend removing the material in a single action
- 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

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Kerakoll Quality System ISO 9001 CERTIFIED IT10/0327
Kerakoll Quality System ISO 14001 CERTIFIED 18586-E
Kerakoll Quality System ISO 45001 CERTIFIED 18586-I

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