

FIELDS OF APPLICATION

Excellent primer and finish paint made with a high quantity of lime putty, for exterior walls and surfaces, for stone, brick, portland cement stucco, cementitious board, and NHL 3.5 and 5.0 stucco mortars. BioCalce Classico is a lime wash paint that can be applied on masonry surfaces to provide a classical chalk paint finish with the ancient capabilities to carbonize to masonry surfaces providing decades of durability, withstanding most climatic conditions and not capitulate to environmental stress. BioCalce Classico has been formulated form a slow set and permit high dilutions with water. This lime wash is ideal for brick applications for artisan finishes and antique patinas, or for full coverage with no wash off techniques that will not flake or peel. A non-acrylic paint product that provides superior adhesion than typical lime paints.

BioCalce Classico can be applied to directly to all interior non-painted wood species without a primer as a decorative effect that can be easily sanded and manipulated to create ceruse finishes and antique effects.

This paint product is not oil proof, and can be damaged by foods, greases, body oils, color crayons or washable colored markers. Cleaning may damage or change the sheen of the paint.

BioCalce Classico can be used as finish paint for brick, stone, stucco, lime plaster finishes and some wood products.

PRODUCT FEATURES

BioCalce Classico is a high quality lime paint ideal for painting brick, stucco, and most masonry surfaces. When applied to virgin surfaces (non-acrylic painted surfaces) this paint will not peel or flake. BioCalce Classico acquires maximum durability when applied on exterior natural masonry surfaces (non-painted surfaces with acrylic paints), for durations of approximately 20 – 30 + years. No guarantee can be provided for all previously painted surfaces that have been painted with an acrylic or oil based paint. This is a historical paint product and has been in use in the United States since the early Colonial period in the early 1700's.

A 100% natural mineral product, completely permeable, breathable, absorbs CO₂, provides good anchoring power with mineral surfaces by carbonization. Provides protection against the formation of bacteria that forms mold. Product is considered an organic product, ideal for use in homes, schools, and hospitals and work sensitive areas.

BioCalce Classico is specifically designed to be tinted with natural oxide earth tints and 0% VOC colorants to increase esthetic color values with minimal impact to the environment and to provide toxic free air quality for indoors. BioCalce Classico is an organic paint material as described in the Bio Category description.

Aesthetic features are extreme flatness, high mineral content, creating unique light refraction capabilities and uncommon luminosity.

TYPE OF PRODUCT

Slaked lime coating according to UNI 8681 with organic stabilizers, less than 3%. No acrylic binders used.

SHEEN FINISH

Very Flat

COLOR

White Base. Color tint up to 8% max with approved tints. Custom color tint matching is available.

TECHNICAL DATA

CRITERIA	INT. STANDARD	VALUE	UNIT
TVOC & VOC (including tint pigments)	2004/42/CE	5.85	g/l
Water Absorption Coefficient	EN 1062-3	0.18	kg/(m ² •√h)
Vapor Permeability	DIN 52615- DIN 18550, EN ISO 7783-2	S _d 0.10	m
pH Value	DIN 19266	13	-
Natural Resistance to Mold	UNI 9805 – UNI 10795	OK	-
Specific Gravity (23°C)	EN ISO 2811-2	1.3	g/ml
Mineral Finish	DIN 55945	< 3.5%	Thickening Agent
Granulation	DIN 19643	0.01	mm
Gloss Level	DIN 55945	< 5	Very Flat
Natural Paint Lime Base NHL 3.5	DIN 18363 – UNI EN 459	10	%
Reaction to Fire	EN 13501-1:2002	A1	Incombustible
RA-226 Th-232 K-40	Politecnico di Milano-High Resolution Gamma Spectroscopy Results	7.0 ± 1.1 1.0 < 5	Bq/kg Bq/kg Bq/kg
Radon I < 1	Politecnico di Milano - Radiation Protection 112 (UE, 1999)	0.24	I
Toxicity	CEE 88/379	0%	-
Environmental Impact Certification	CEE 880/92 – CEE 1980/2000 C.C.A.N° 201230/a-b		
APEO (Alkyl Phenol Ethoxylates)	-	0%	-
PEG (Polyethylene Glycol)	-	0%	-
PG (Propylene Glycol)	-	0%	-
Formaldehyde	-	0%	-
Biocides	-	0%	-

Does not contain chemicals that can aggravate or cause asthma, see NIH Asthma Report 2012.

APPLICATION CYCLE INSTRUCTIONS

BRUSH APPLICATIONS

1ST COAT: Dilute BioCalce Classico with 50% water, 7.5 liters of water per one (1) 15-liter bucket to 120% dilution, 18 liters of water per one (1) 15-liter bucket. For brick or stucco it is suggested to dampen previously all masonry surfaces with water thoroughly, so as to assist lime wash paints to absorb deeper into the masonry surface. Do not apply paint to overly wet surfaces. Allow 1st coat to dry for at least 2 – 8 hours before applying 2nd coat. Brush, roll or spray the first coat. Using a large brush and painting by hand will create the best results. BioCalce



Classico can be applied to non-acrylic painted natural mineral surfaces such as stone, brick, stucco, lime plasters and lime paints, without the use of a primer. For interior or exterior applications where the base to be painted is a non-mineral surface (i.e., acrylic paint, sheetrock), apply 1 coat of BioGrip Micro or Medium, and allow to dry for 8 – 12 hours prior to application of 1st coat BioCalce Classico. Interior applications can be performed on virgin wood.

2ND COAT: Apply BioCalce Classico diluted with 50% water, 7.5 liters of water per one (1) 15-liter bucket to 120% dilution, 18 liters of water per one (1) 15-liter bucket. Apply with brush when possible. Painting with a brush in a crisscross pattern will create a very slight natural chromatic finish. Allow 2nd coat to dry for at least 1 – 4 hours before applying a 3rd coat.

3RD COAT: For wash or glaze effects BioCalce Classico can be diluted from 150% – 200% with water. Extreme dilutions for the exterior should be applied on 1st or 2nd base coats only.

ROLLER APPLICATIONS

This product is not recommended for roller applications.

PAINT SPRAYERS

1ST COAT: BioCalce Classico is a non-aggregate paint and can be used in most airless sprayers. Dilute BioCalce Classico with 50% water, 7.5 liters of water per one (1) 15-liter bucket to 120% dilution, 18 liters of water per one (1) 15-liter bucket when applying paint to achieve a full coverage finish. For brick or stucco it is suggested to dampen previously all masonry surfaces with water thoroughly, so as to assist lime wash paints to absorb deeper into the masonry surface. Do not apply paint to overly wet surfaces. Allow 1st coat to dry for at least 2 – 8 hours before applying 2nd coat. For interior or exterior applications where the base to be painted is not a mineral surface, apply 1 coat of BioGrip Primer Micro or Medium, and allow to dry for 12 hours prior to application of 1st coat BioCalce Classico. Particular care must be taken when using a sprayer on brick or stucco to apply product abundantly, without causing paint runs, so as to permit proper millage thickness for longer durability.

2ND COAT: Dilute BioCalce Classico with 50% – 120% water, and apply as instructed above for 1st coat.

SPRAY TIP USAGE: BioCalce Classico may be applied using an airless sprayer. Apply paint product with a # 0.019 – 0.021 mm size spray tip. Always use new spray tips for starting a paint job for best results. This will also conserve the amount of paint necessary to complete the job.

GRAIN SIZE: 0.01 mm

MIXING PAINT & WATER

Most of our paint formulas are concentrated and require water to be added to them for proper use. This process means we can sell more coverage in an economical package that decreases the cost for transport, reduces the carbon footprint, helping the your pocket book and the environment.

Mix paint and water with an electric drill and paint paddle, or mix well by hand! If water is sitting on the top of your mixture, the paint is not properly mixed!

TOOLS

Apply with brush or with an appropriate sprayer and sprayer tip.

DRYING TIME

Allow a drying time between coats of at least 2 – 8 hours for the 1st coat, and with successive coats allow at least 1 – 4 hours between coats. With lower temperature and humidity more time may be needed.

Do not apply BioCalce Classico on the exterior if there is a risk of thunderstorms or showers during the 12-hour drying time needed for product to dry and carbonize correctly.

CONSUMPTION/COVERAGE

Approximately 1,000 ft² / 93 mt² – 2,000 ft² / 130 mt² depending on absorption and type of base. Determine exact consumption by performing a test on the surface to be treated.



PACKAGING

Plastic buckets of 1, 5 and 15 liters.

APPLICATION CYCLES ON DIFFERENT TYPES OF BASES

Make sure base is solid, dry and well cleaned, prepared with skill. It is recommended to observe the rule VOB DIN 18 363, Part C, paragraph 3.

NEW CEMENT STUCCO

It is not suggested to use BioCalce Classico on sheetrock. For application on sheetrock use BioCalce A.

PAINTED SHEETROCK

It is not suggested to use BioCalce Classico on painted sheetrock. For application on sheetrock use BioCalce A.

Apply BioGrip Micro diluted 40% with water, 6 liters water to one (1) 15-liter bucket. BioGrip Primer may be tinted for light and medium colors. Apply final paint finish with BioCalce Classico according to instructions.

UNPAINTED WOOD

BioCalce Classico can be used as a historical and decorative finish on new or reclaimed wooden beams, wood trim, wood ceilings and even wood floors. Application of BioCalce Classico on wood should not be used on exterior surfaces that are exposed to rain or water, as this may result in the removal of the lime wash or cause the tannins or resins in many woods to discolor the patina.

CEMENTITIOUS BOARD

It is not advised to use BioCalce Classico for application on cementitious boards.

STONE & BRICK WASHES

When applied to natural mineral surfaces such as stone, brick, or NHL 3.5 cements BioCalce Classico can be applied as a wash, diluting with water 120% – 200%, applying on a wetted surface, applying in a crisscross pattern with a large lime brush. For applications on portland cement stucco apply one (1) coat of BioGrip Micro diluted with water 30%, and allow to dry for 8 – 12 hours before application of BioCalce Classico as a wash.

BioCalce Classico is the product most adapted for use to create antique effects on brick by washing off lime paint with sufficient water pressure as it begins to draw or pull. This is a very popular application, but it is not recommended to be applied except by a trained professional. Technique requires sufficient damping of existing un-painted brick to permit a slow set with the application of BioCalce Classico, which must be diluted with water between 100% – 150%, to permit sufficient lime paint material to remain, and yet with washing by an adjustable spray hose with at least 55+ PSI pressure, remove the amount of desired material without over or under washing. Often times 2 – 3 types of dilution are recommended to create the desired effect, requiring several coats, with sufficient drying time inbetween. Correct application and removal will provide a historical washed paint effect for new or existing construction. Testing must be determined by several attempts at different dilutions of lime paint with water, as well as surface heat conditions, water pressure, and type of spray tip (wide or narrow), to remove the correct amount of lime paint to create an accurate historical effect. Applications should not be performed in temperatures below 70°F / 21°C or above 90°F / 32°C. This type of paint application and removal requires an expert in the use of lime paints as well as an artistic capacity and an intuitive mindset.

WASHES ON PAINT

Dilute BioCalce Classico with 50% – 120% with water, applying diluted paint over painted or masonry base to acquire a first coat base. Always wet masonry walls abundantly with water making sure that virgin masonry base has absorbed sufficient water so that lime paint application is not performed on a totally dry base. Apply base coat of lime paint and allow to dry for at least 4 – 8 hours. Follow instructions for washes above to apply diluted lime wash onto lime base.

To facilitate ease of application of washes on lime paint base, pre-wet liberally all sections of wall to be painted with water, applying diluted BioCalce Classico as per instructions on damp wall. Re-wet areas of lime wash again as needed, when moving across the surface with diluted lime wash applications. When applying multiple coats allow time between coats to be visually dry before applying a successive coat of wash or paint.

BRICK

Always wet exterior masonry walls abundantly with water making sure that virgin masonry base has absorbed sufficient water so that lime paint is not applied on a totally dry base. Dilute BioCalce Classico with 100% water, maximum 15 liters of water per one (1) 15-liter bucket of BioCalce Classico, when applying paint to achieve a full coverage finish. Apply a 2nd coat of BioCalce Classico, diluted 50 – 100% with water, depending on the density of lime paint desired for the surface. Always pre-wet 1st coat surface with water abundantly before applying BioCalce Classico on a damp surface to enhance absorption and durability, as well to ease application of lime paint. For wash or glaze effects see directions as indicated in stone and brick washes.

BioCalce Classico cannot be applied to most large flat areas, such as exterior brick floors, without the risk of product deterioration due to freeze-thaw conditions. Brick walls not covered by a roof may create poor conditions for BioCalce Classico to remain integrated with brick because of freezethaw conditions that can cause brick to deteriorate rapidly on the surface, pulverizing as a result, thus causing lime paint to deteriorate. This situation can occur on chimneys, thresholds, and brick areas in contact with earth, particularly on the north face, where freezing conditions intensify on wet brick, causing brick to deteriorate rapidly. Brick in constant contact with damp soil may absorb salt nitrates from the earth and this too will cause brick to deteriorate rapidly. Application by a large masonry brush is recommended.

CONCRETE FLOORS, SIDEWALKS OR DRIVEWAY

BioCalce Classico cannot be used on portland cement based floors, sidewalk or driveways.

NEW CEMENT STUCCOS PORTLAND CEMENTS

New Portland cement should not be painted for about 28 days to ensure proper anchoring and drying. Apply 1 coat of BioGrip Micro or Medium diluted 30% with water, 4.5 liters water to one (1) bucket 15 liters of product; allow to dry for at least 12 hours. BioGrip Primer may be tinted with tint for light and medium colors. Apply BioCalce Classico according to instructions. Application by a large masonry brush is recommended.

NHL 3.5 & 5.0 CEMENTS

BioCalce Classico can be applied to wet or damp stucco for maximum effect to intensify durability and create blushing effects. For ease of application apply BioCalce Classico by sprayer covering completely moist stucco cement and allow to dry. A 2nd coat is not required for use in such instances. Apply BioCalce Classico according to instructions.

When NHL 3.5 and NHL 5.0 cements are dry, review instructions in brick section above and follow Application Cycle Instructions above. Most mineral paints and lime paints can be applied directly to Natural Hydraulic Cements without the need to prime with BioGrip Primer. Application by a large masonry brush is recommended.

DECAYING OR CRUMBLING STUCCOS OR POWDERY SURFACES

Chalking surfaces, which could prevent proper anchoring of the base coating must be removed and pressure washed. Apply Potassium Silicate Concentrate, diluted 100% with water (1:1) on all damaged surfaces, applying 2 – 3 coats in rapid succession and allow to dry for at least 12 hours. Allow to dry for at least 12 hours. Apply 1 coat of BioGrip Micro or Medium diluted 30% with water, 4.5 liters water to one (1) bucket 15 liters of product; allow to dry for at least 12 hours. Apply final paint finish with BioCalce Classico according to instructions.



COATINGS WITH EFFLORESCENCE

Cement surfaces showing efflorescence should be removed with acid and thoroughly rinsed with water. Apply Potassium Silicate Concentrate, diluted 100% with water (1:1) on all damaged surfaces, applying 2 – 3 coats in rapid succession and allow to dry for at least 12 hours. Apply 1 coat of BioGrip Micro or Medium diluted 30% with water, 4.5 liters water to one (1) bucket 15-liters of product; allow to dry for at least 12 hours. For coatings on surfaces damaged by the saltpeter or efflorescence no guarantees can be provided. Apply final paint finish with BioCalce Classico according to instructions.

AGED CEMENT STUCCOS

When new stucco repairs are performed on older cement stuccos, apply EcoForte Consolidator diluted 50% with water (2:1), to older surfaces prior to applying new cement stucco. Dirty and/ or contaminated surfaces should be cleaned and any attached algae removed manually or by mechanical means, i.e., with a high-pressure washer. Stucco damaged by algae or mold should be treated with EcoDis. Apply EcoForte Consolidator to any new stucco repairs with the same dilution. Apply 1 coat of BioGrip Micro or Medium diluted 30% with water, 4.5 liters water to one (1) bucket 15-liters of product; allow to dry for at least 12 hours. Apply final paint finish with BioCalce Classico according to instructions.

STUCCO REPAIRS

See Aged Cement Stuccos above.

STORAGE

Store in a cool, dry and protected from frost. Close the open containers with care. Store liquids only in plastic buckets.

WARNING!

Do not apply any products in direct exposure to strong/hot sunlight, rain, mist, high humidity (> 80%), at dew-point formation, or in the presence of strong wind. Beware of the danger of frost overnight. If applied by roller or sprayer, protect surrounding surfaces as necessary. Protect eyes and skin from splashes of paint. Cover glass, ceramic, natural stone, brick, metal, wood, painted surfaces and glazed tiles. Clean affected areas immediately with water. Prominent elements of the building (cornices, parapets, etc..) should be treated with skill, covering flashings, gutters, copper coatings, etc. ...

Do not work in air temperature lower than 13°C / 55°F and not above 32° C / 90°F. Clean work tools with water immediately after use. Keep out of reach of children. In case of contact with eyes and skin, wash immediately with plenty of water. In cases of consumption, consult a Doctor or call the CDC Poison Center (see Safety Data Sheet).

In case of contact with eyes and skin, wash immediately with plenty of water and/or a saline solution. Always keep a good supply of saline solution for eyes and use abundant amounts to wash eyes. Do not rub eye lids or physically touch your cornea or surrounding area prior to and during washing. Consult a Doctor immediately in cases of irritation or severe burning sensation. In cases of consumption, consult a Doctor or call the CDC Poison Center (see Safety Data Sheet). Keep out of reach of children.

WATER CONTAMINATION HAZARD

CLASS 1

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of information required by the CPR, and it is classified as a non-hazardous material.

PRODUCT CONTAMINATION HAZARD

CODE CER / NORMATIVE EAC / Decision commuted by the Commission n. 2000/532/CE

NOT DANGEROUS

The directive 75/442/CEE, 08 01 production, disposal, formulation, supply, use, and removal of paints and varnishes: 10 13 04 for removal of paints and varnishes; 10 13 04 disposal of lime and hydrated lime products.

DISPOSAL

Do not enter product in its original concentration into drains or open waters.
Do not store at public waste disposal sites. In case of conduction into adapted biological purification plants no disturbances need be expected. The preparation has been estimated by conventional method (calculated-procedure) of EG directive 1999/45/EG) and is classified as non-hazardous for the environment.

Dispose according to local regulations. Empty cans should be disposed of according to local regulations; plastic buckets are 100% PBS, NO. 5, approved for food storage; 100% recyclable if cleaned thoroughly prior to recycling.

ADDITIONAL INFORMATION

This Technical Sheet lists data collected on the basis of technique and experience. Given the multiplicity of use of the product they cannot be binding and the user cannot refrain from using common sense and experience for the individual case. This information shall not constitute any legal obligation and no obligation from the seller or point of purchase, or any agreements inferred by employees who sale this product. Insurance or guarantees issued by our employees or employees should always be confirmed separately in writing. Any information about product adaptability and use of the product, must be verified by user prior to purchase. Check the exact consumption of product for the surface where product may be applied to determine amount of products needed. **The user must verify the color matching before starting work.**

MANUFACTURER

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