BioINTOCAL

TRANSPIRING FIBRE-REINFORCED PLASTER BASED ON NATURAL HYDRAULIC LIME, FOR EXTERIOR AND INTERIOR APPLICATION

Marking

CE

Reference standard: EN998-1

GRANTS *LEED* CREDITS

Bioconfort Line

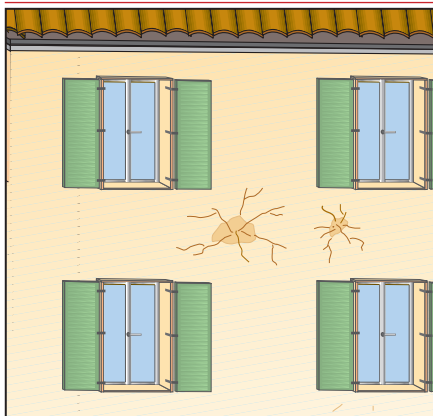| CHARACTERISTICS	ENVIRONMENTAL		METHOD OF USE			PRECAUTIONS
ALLOWS TO BREATHE	ECO GREEN	RECYCLABLE	MIX MECHANICALLY	APPLY MECHANICALLY USING A SPRAY PUMP	APPLY BY TROWEL	STORAGE: IN A DRY PLACE

PROBLEM

RENDERING FACADES AND MASONRY ACCORDING TO THE RULES OF BIO-CONSTRUCTION

SOLUTION

BioINTOCAL is a premixed eco-compatible plaster based on white natural hydraulic lime, selected ballast and additives which confer high workability and breathability, for all bio-construction requirements.

ACCORDING TO EUROPEAN NORMS
EN 998-1
MORTARS FOR PLASTERS

GP
MORTAR FOR INTERIOR AND EXTERIOR PLASTER FOR GENERIC USE

APPLICATION FIELDS

BioINTOCAL is indicated for rendering interior and exterior masonry where there is a requirement for excellent breathability and high compatibility with the various substrates to comply with the rules of bio-construction. Designed for rendering new facades and restoring historic masonry, thanks to its porosity, compatibility and breathability, it ensures that the thermo-hygrometric equilibrium of the masonry is maintained. The soft and creamy paste allows it to be used either by hand or by machine on any surface (loadbearing walls and curtain walling in brick, stone, tuff or mixed materials).

ADVANTAGES

- High workability
- Excellent breathability.
- Compatible with all common substrates.

B

METHOD OF USE

• PREPARING THE SUPPORT
Remove all loose and flaking material, oils, release agents, dust and dirt in general by descaling, brushing and washing with water. Fill any cavities with fragments of brick and mortar. Apply an open-textured render (**1**) made by mixing **BioINTOCAL** with POROVENT FONDO (1 litre per 25 kg bag) and water. 24 hours after applying an open-textured render coat to provide a key, plaster with **BioINTOCAL** applied by hand or machine.

• PREPARING THE MIX
BioINTOCAL must be mixed with clean water (**2**). The mix must be prepared by pouring the water into a suitable container and adding the powder. Mix the product for no longer than the time required to obtain a plastic and creamy consistency. Use the entire mix without adding to it.

• APPLICATION
24 hours after applying the open-textured render coat to provide a key, plaster with **BioIN-TOCAL** (**3**) to the recommended average thickness of 2 cm. For applying by machine use standard mixers with stators (D6-3; D7-2.5; D8-2.5). We recommend "priming" the hoses by starting with a high flow of water and subsequently reducing it gradually until the correct consistency is reached.
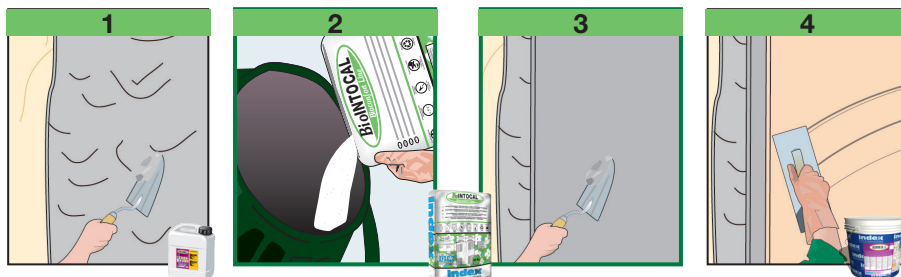The equipment should be cleaned with water before the product sets.

ADVICE ON APPLICATION METHODS
Apply **BioINTOCAL** within an hour of mixing in one or more coats until the optimum thickness is reached. Applying it does not require particular precautions beyond those normally followed for applying normal plaster.
BioINTOCAL's working time is such as to allow laying on any architectural surface. Recently-plastered surfaces, especially in hot weather, must be kept moist with a water mist to avoid crazing.

In cold periods it is advisable to provide suitable protection against frost for the fresh plaster. Cracks and holes in the masonry must be filled in advance, and in order to maintain the verticality of the walls it is advisable to fix angle beads to the corners and vertical guides to the walls.

(See following)

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TECHNICAL CHARACTERISTICS

	Standard	*Bio*INTOCAL
Appearance		Powder
Colour		Whitish - light grey
Particle size		0 to 1.5 mm
Apparent density		1.40 ± 0.05 kg/ℓ
Mixing water		$20\% \pm 1\%$
Storage in original packaging in a dry place		12 months
Mix properties and workability	**Standards**	
Density of the mix	EN 1015-6	1.70 ± 0.05 kg/ℓ
Application temperature		+5°C to +35°C
Minimum application thickness		8.0 mm
Maximum application thickness per layer		20.0 mm
Application		Manual or mechanical
Performance characteristics	**Standards**	**Product performance**
Class and type	**EN 998-1**	**GP**
Resistance to compression - after 28 days	EN 1015-11	≥ 2.6 N/mm² - CS **II**
Resistance to bending - after 28 days	EN 1015-11	1.4 N/mm²
Adhesion to substrate	EN 1015-12	≥ 0.5 N/mm² - FP: A
Water absorption through capillarity	EN 1015-18	$w < 0.4$ kg/m²·h$^{0.5}$ - W1
Water vapour permeability coefficient	EN 1015-19	$\mu = 9$
Thermal conductivity $\lambda_{-10,dry}$	EN 1745 A.12	0.54 W/mK
Durability	EN 998-1	5.2.3.2 compliant
Thermal resistance - Working temperature		-30°C to +90°C
Reaction to fire	EN 13501-1	A1
Hazardous substances	EN 998-1	According note in ZA.1

Test conditions: temperature 23±2°C, 50±5% R.H. and air velocity in test area <0.2 m/s. **These parameters may vary based on the specific conditions of the worksite: temperature, humidity, ventilation, porosity of the substrate.**

(*) The stated times may be longer or shorter as the temperature decreases or increases.

Compliant with the general principles defined in **EN 998-1** - Principles for evaluation of the use of products and systems.

(See previous)
FINISHES

For painting, use highly breathable lime-, silicate- or siloxane-based wall paints, such as *Bio*CALCECOLOR or SILICOLOR, or decorative mineral coatings, such as DECORFINE (**4**).

• COVERAGE

Coverage is about 14 kg/m²per cm.

• PRECAUTIONS
- Use cold water in the summer and water at 20°C in the winter.
- Application temperature from +5°C to +35°C.
- Do not add other materials such as bonding agents, aggregates or additives.
- In hot weather, keep the surface of the laid mortar wet, preventing the product from drying out quickly, for at least 8 hours.
- Wet the surfaces in high temperatures.
- Do not add water when the mix starts to set.
- Avoid sudden temperature changes while the plaster is setting.
- Joints between different elements must be reinforced with special fibreglass mesh, RETINVETRO PER INTONACI, which should be embedded in the last layer of plaster.
- For application on smooth or poorly absorbent surfaces, always apply bonding render and check that it adheres properly.
- Store in original closed packaging in a dry place. Protect against frost and high temperatures.

PACKAGING

*Bio*INTOCAL
25-kg Sack

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