

FW

LIGHTING

BIOPIETRA® *Cuore Bio*

BIOPIETRA LIVING and DESIGN

a Picture where Nature is the Artist.



certificato
U-Series





Biopietra® is **BIO-CERTIFIED**

Biopietra is the only stone certified in Europe, and is made in Italy. Our health and harmony are guaranteed by Biopietra products, which are certified for the green building industry according to the strictest ANAB ICEA and UNI EN ISO European regulations.



Biopietra® is **HEALTH**

Biopietra is immune from the main factors of household pollution. It has no Radon emissions. Health and well-being in your own home.



Biopietra® is **TRANSPIRANT**

Biopietra does not contain any resins; it enables walls to breathe, preventing the development of damp and mould, typical problems of wall coverings containing resins. Index of transpiration: μ 20.



Biopietra® is **GUARANTEED**

Guaranteed for indoor and outdoor use; weatherproof, UV resistant and fireproof. For a complete guarantee, Biopietra's products must be laid with Multikoll transpirant glue and Multijoint Biostucco grout.

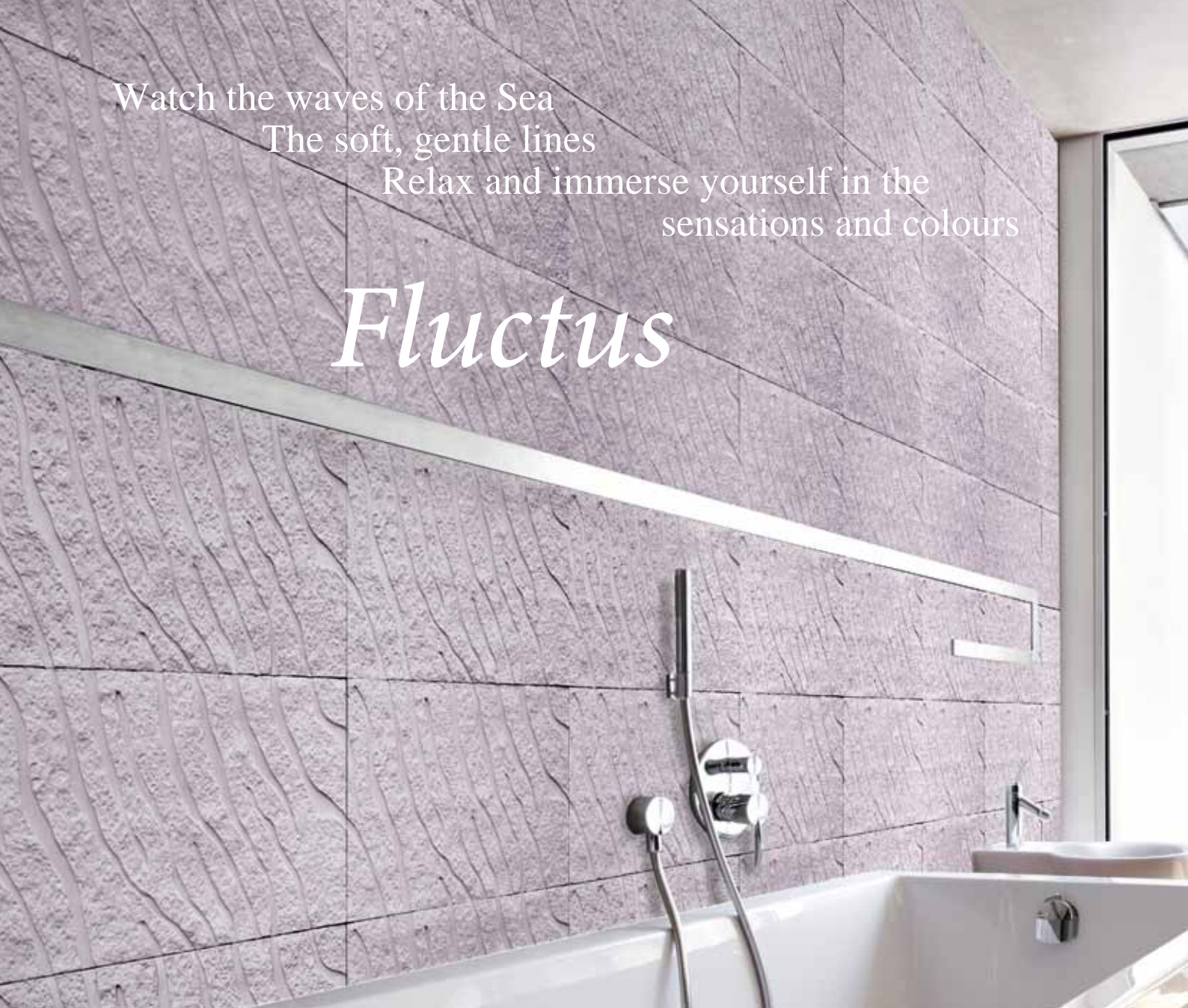


Biopietra® is **EASY**



Watch the waves of the Sea
The soft, gentle lines
Relax and immerse yourself in the
sensations and colours

Fluctus



Design Collection - Fluctus Ametista



Fluctus Quarzo



Fluctus Credaro



Fluctus Perla



Fluctus Opale



Fluctus Granato



Fluctus Ametista

- Quarzo and Credaro colours are not available with pearled finishing



Fluctus soft lines, enveloping waves,
relaxation and colours, immerse yourself
in sensations.

“Observe the ocean waves ...”



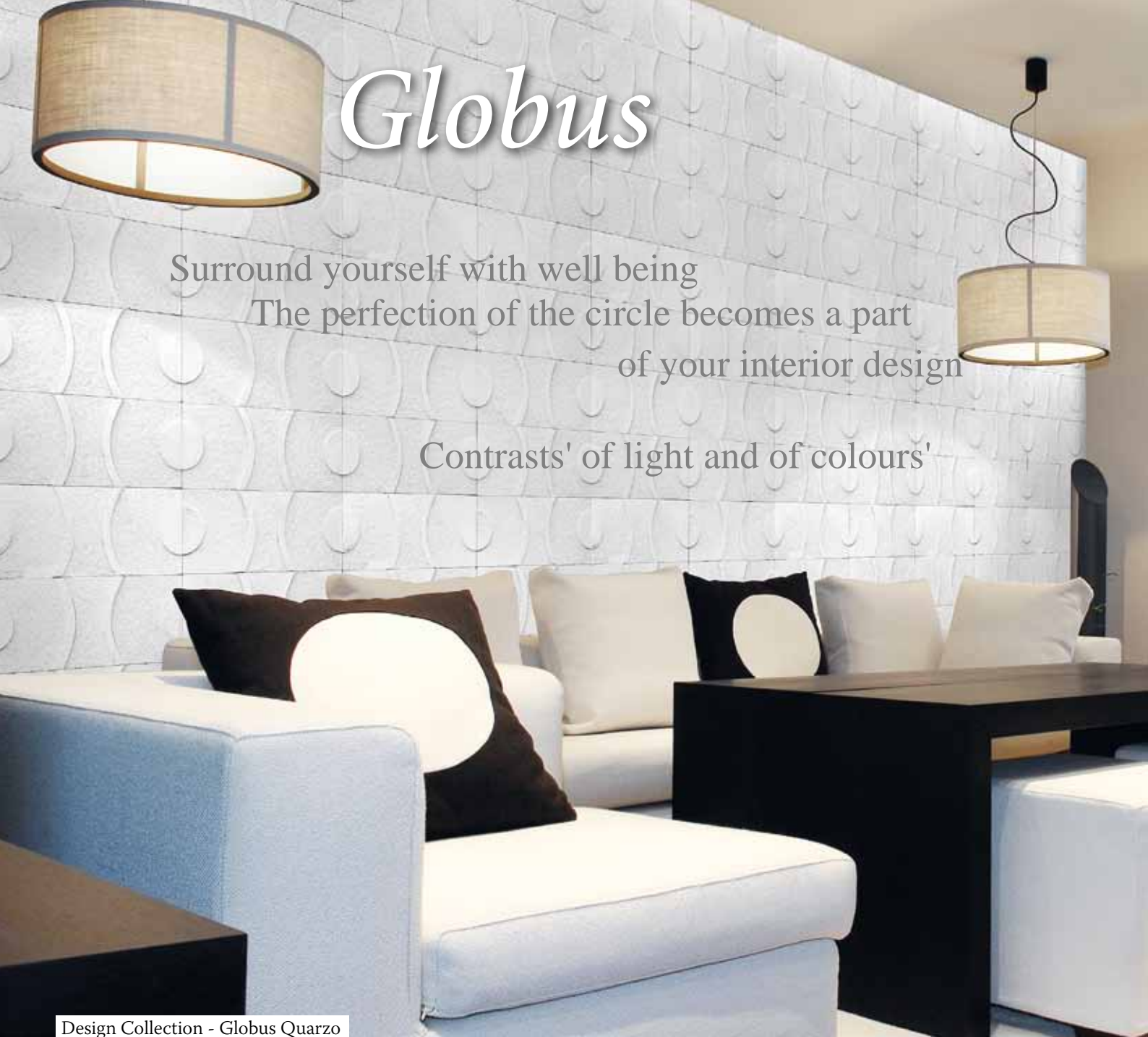


Fluctus

Globus

Surround yourself with well being
The perfection of the circle becomes a part
of your interior design

Contrasts' of light and of colours'



Design Collection - Globus Quarzo



Globus Quarzo



Globus Credaro



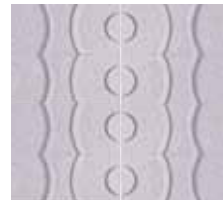
Globus Perla



Globus Opale



Globus Granato



Globus Ametista

- Quarzo and Credaro colours are not available with pearled finishing

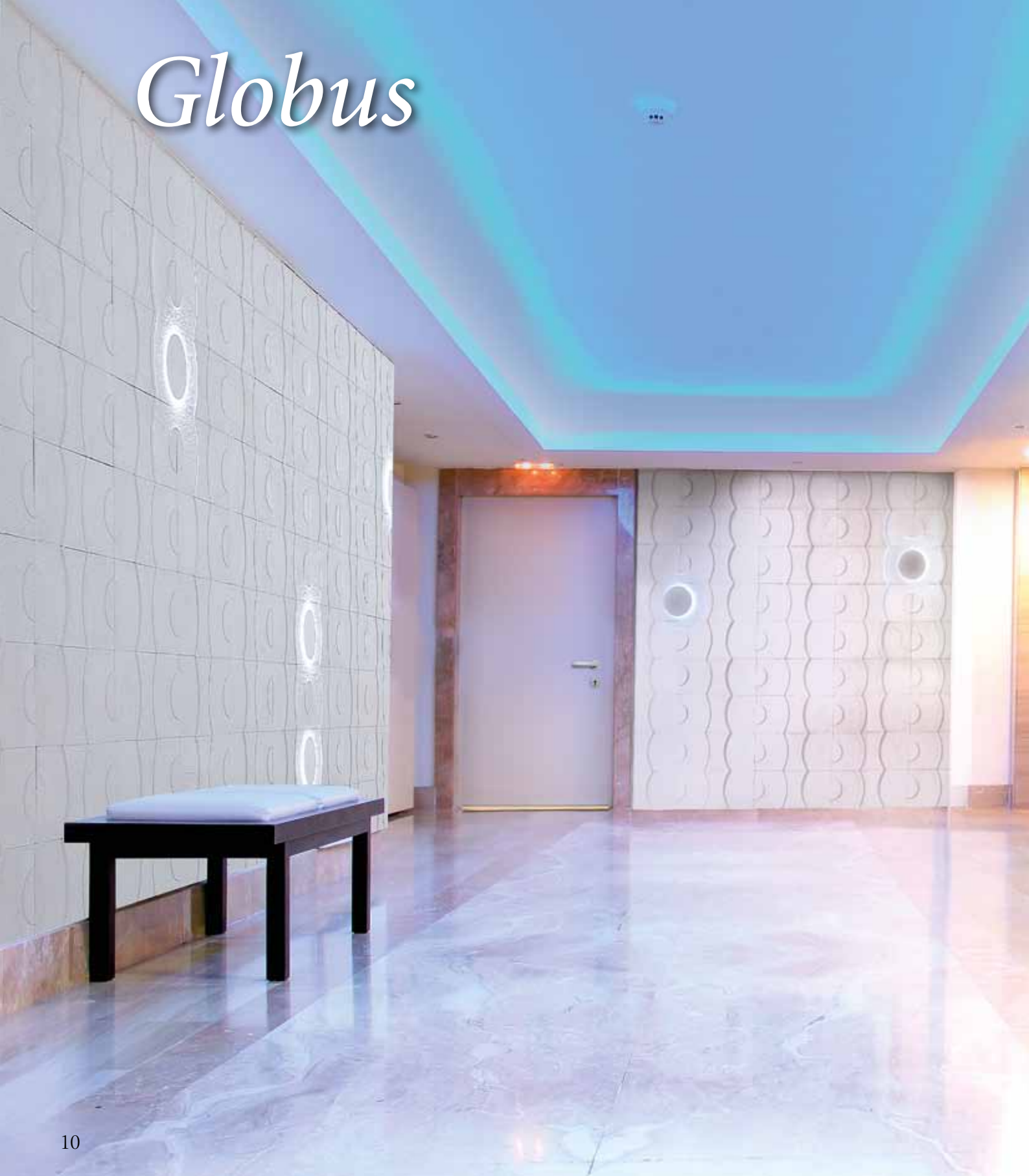


Design Collection - Globus Opale



lampada
"Glo"

Globus





Design Collection -

Globus Perla examples of GLO lamp integrated in the cladding

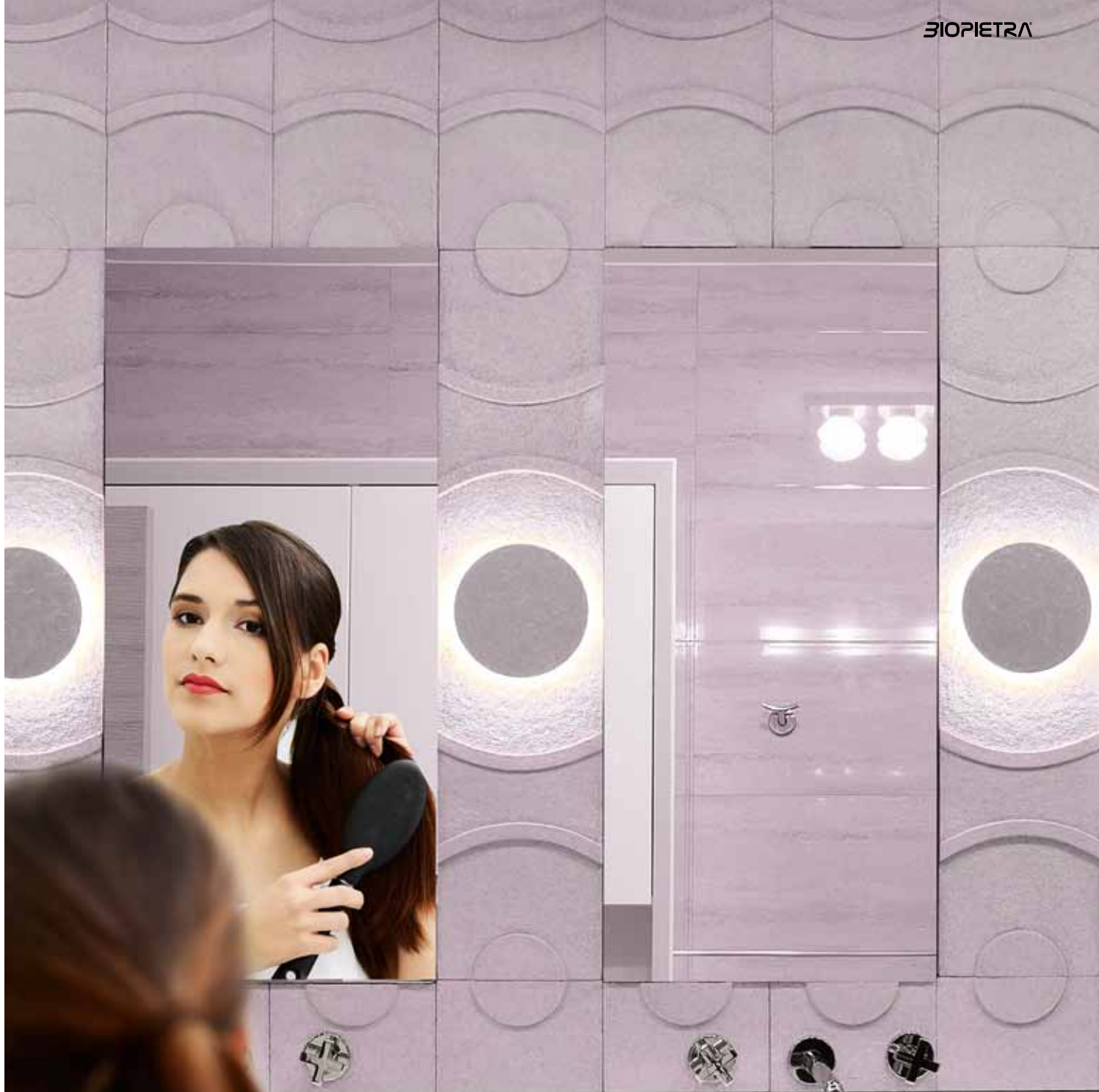
LIVING AND DESIGN claddings are handcraft produced with particular soft moulds so as to obtain the typical peculiarities of hand made natural stone avoiding a plastic and fake effect.

Small imperfections, differences of shades or movements of colours among claddings, so as differences in thickness in the reliefs and three-dimensional shapes are deliberately sought **to ensure a natural effect.**

Walls in stone are characterized by the specificity of the format that gives motion, depth and value.

Originality of Biopietra's creations is evident as soon as the claddings are illuminated and contextualised in the environment so becoming the strength point capable of bringing harmony and well-being in any room





Design Collection -

- Globus Ametista examples of GLO lamp integrated in the cladding

Cuspis Sensations in 3D

Geometric shapes in multiple dimensions in a small space
decorate in a contemporary style and colours'



Design Collection - Cuspis Perla



Cuspis Quarzo



Cuspis Credaro



Cuspis Perla



Cuspis Opale



Cuspis Granato



Cuspis Ametista

- Quarzo and Credaro colours are not available with pearled finishing

3D sensations.
Geometric shapes in more dimensions.
In a little space it furnishes and decorates.
Modern Style and colour games.





Cuspis

Choose the face of your home..



Design Collection

- Cuspis Granato examples of CUS lamp integrated in the cladding



Design Collection - Cuspis Perla



Design Collection - Cuspis Opale

Loxos

Mix lights and colours

Combine materials and shapes with balance and functionality.

Design Collection -

Loxos Ametista examples of LOX lamp integrated in the cladding



Loxos Ametista



Loxos Credaro



Loxos Perla



Design Collection -

- Loxos Perla with LOX lamp and decorative elements

lampada
“Lox”



Design Collection -

- Loxos Credaro examples of LOX lamp integrated in the cladding

Mixing lights and colours.
Combine materials and shapes with
balance and functionality.

Lampade Decorative

emotions and comfort through a new use of light



The creativity of Viemme61's young team of designers combined together with Biopietra's knowledge has brought us towards a new way of interpreting light: the illuminated elements are hidden amongst the three-dimensional drawings and cladding's of the design collection, creating new light reactions.

An innovative solution redesigns the walls in your home by mixing stylish decorative tastes of a contemporary life style with a line that blends light and matter and combines shapes and colour's in a perfect balance, enhancing the best features of led lights.

Advantages:

Reliability, Elegance,

Energy efficiency and savings (economic and long term)

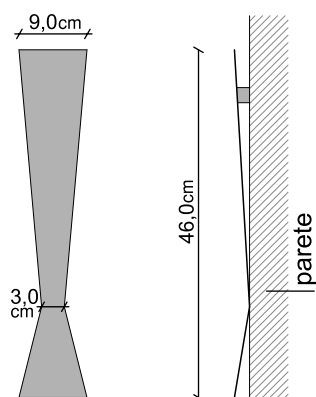
Relaxing atmosphere.

Easy laying system

Think about your personal well-being because you are the protagonist of the spaces you live in

Lampade decorative

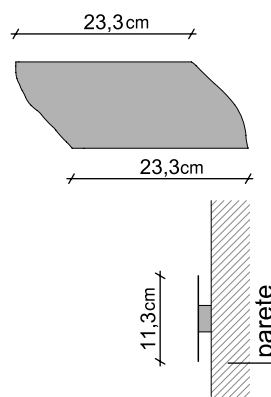
CUS



Colours - Farbe - Couleurs:

-  CUS Perla
-  CUS Opale
-  CUS Granato
-  CUS Ametista

FLU

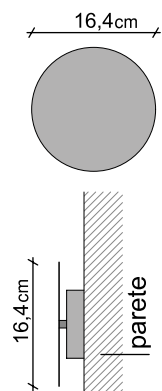


Colours - Farbe - Couleurs:

-  FLU Perla
-  FLU Opale
-  FLU Granato
-  FLU Ametista

Lampade decorative

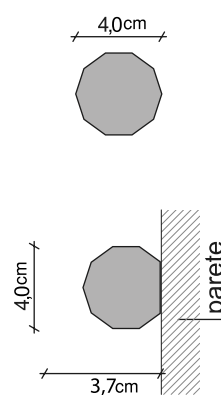
GLO




Colours - Farbe - Couleurs:

-  GLO Perla
-  GLO Opale
-  GLO Granato
-  GLO Ametista
-  GLO Vetro Satinato

LOX



Colours - Farbe - Couleurs:

-  LOX lampada prismatica cristallo



Decorative glass inserts

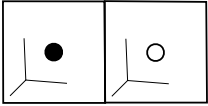


Decorative Loxos Insert -

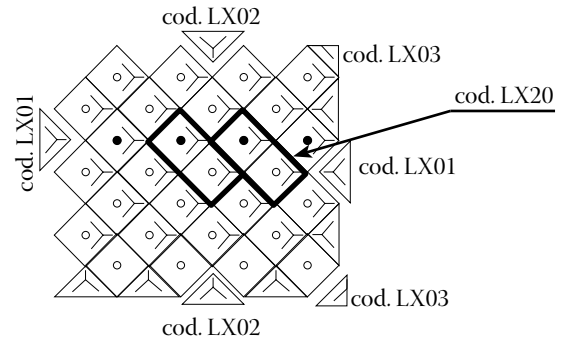
Button closure to match

When ordering Loxos you must use Code LX20- XXX special piece with hole for inserting led lamps or glass decorations

- Description	- Format	- Thickness
Bottone	Ø 3,5 cm	0,8 cm



BOTTONE - GAMMA COLORI (PER LOXOS) Ø3,5 cm



Advantages of this innovative solution:

- interchangeability: take out and put into stone in a matter of minutes
- Exchange of decoration/ colour according to fashion trends or to match the colour of new furniture and furnishings.



Bottone

"Button" is a decorative element for insertion into the "Loxos." range

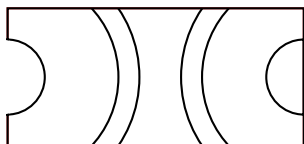


Decorative Globus Insert

Button closure to match

When ordering Globus you must use Code GL00- XXX special piece with hole for inserting led lamps or glass decorations

- Description	- Format	- Thickness
Bottone	Ø 3,5 cm	0,8 cm



CERCHIO - GAMMA COLORI (PER GLOBUS) Ø13 cm



S41 orange



S42 red



S43 brown



S44 green



S45 blue



S46 violet

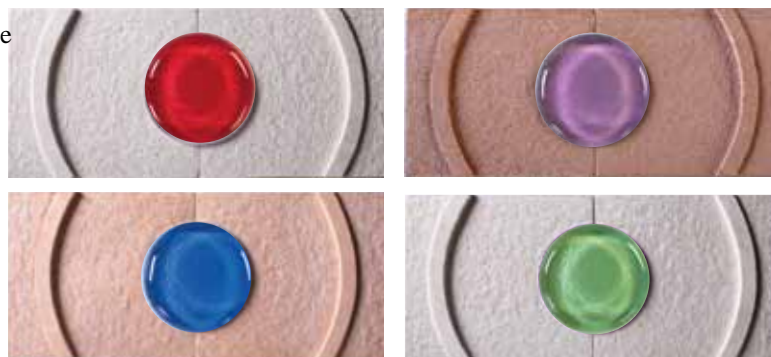


S47 powder



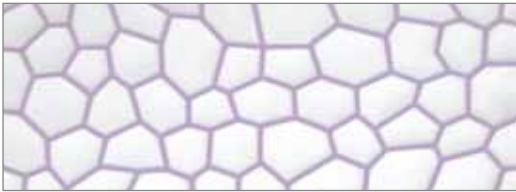
Cerchio is a decorating element for “Globus” cladding and is available in the colour's shown on the page

Below detail the special cod piece. GL00 with inserted decorative element "circle" in four different colours.



Dakar

Fusion of design
and nature



Living Collection - Dakar Quarzo



According to the decorative tastes it's possible to match coloured grouts on the whole Dakar surface to obtain a personalized and emotional taste.

For instance: Dakar Quarzo cladding combined with lilac grout for a child's bedroom.

Excludes anthracite or black.



Dakar

Nature is our inspiration



Living Collection - Dakar Terra



Dakar Credaro



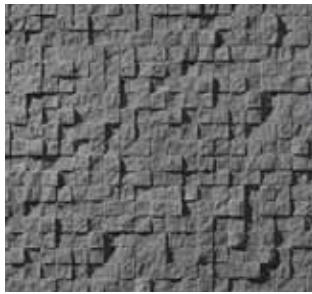
Dakar Terra



Dakar Quarzo



Firenze Quarzo



Firenze Ardesia



Firenze C52 Credaro



Firenze C53 Terra



Firenze Sabbia

How important is choreography
in your design?



Biopietra, the ideal choreography!



Living Collection - Firenze Quarzo



Living Collection - Firenze Quarzo

Monte Bianco

Living Collection



Enhance the decor of your home.
Biopietra, the ideal setting for your choice of style.

Living Collection - Monte Bianco Quarzo



Monte Bianco Quarzo



Monte Bianco Ardesia



Monte Bianco C52 Credaro



Monte Bianco C53 Terra



Monte Bianco Sabbia



Living Collection - Monte Bianco Ardesia



Living Collection - Monte Bianco Quarzo

Enhance the interior decoration of your home
Biopietra, ideal choreography for your choice of style.



Venezia Quarzo



Venezia Ardesia



Venezia C52 Credaro



Venezia C53 Terra



Venezia Sabbia

Venezia Decorative cladding for
interior and exterior use

A fusion of rustic and contemporary designs



steel, glass, wood and ... Biopietra

Living Collection - Venezia Quarzo



Living Collection - Venezia Terra



Living Collection - Venezia Quarzo



Biopietra Tradition - Marmolada Quarzo



Biopietra Tradition - Marmolada Ghiaccio



Biopietra Tradition - Marmolada Quarzo



Biopietra Tradition - Marmolada Ghiaccio



Biopietra Tradition - Sierra Nevada Ardesia



Biopietra Tradition - Sierra Nevada Ardesia



Biopietra Tradition - Scaglia Carsica Sabbia



Biopietra Tradition - Marmolada Ardesia



Biopietra Tradition - Montebello Sabbia



Biopietra Tradition - Acropoli Beige Credaro



Biopietra Tradition - Everest e Roccia Zolfo



Biopietra Tradition - Stelvio Terra

see the complete Biopietra range at www.biopietra.com



Tradition Collection - Montebello Sabbia

UK - COMBINE BEAUTY WITH HEALTH ON PUBLIC PREMISES.
BIOPIETRA IS IDEAL FOR PUBLIC PREMISES AND SHOPS THANKS TO RADON FREE-EMISSIONS, IT DOES NOT CONTAIN HARMFUL SUBSTANCES FOR HUMANS AND IS TRANSPIRANT (INDEX OF TRANSPARATION: μ 20).



Biopietra Tradition - Scaglia Carsica Melange



Biopietra Living - Firenze Sabbia

Easy to install on any kind of surfaces. Fast, in just 3 hours you can change the complete look of your store. Healthy environment. Success and style go hand in hand.



Easy to install
Fast, in only 3 hours you can completely change the look of your property.
Healthy environment.



success and aesthetics go hand in hand



Laying instructions

LAYING OF BIOPIETRA CLADDING

ADVANTAGES:



- excellent and long lasting results
- time-saving
- cost saving
- less waste
- Biopietra's total guarantee
- simple, easy maintenance

In order to obtain these excellent results, adhesives and grouts especially designed and prepared for Biopietra claddings must be used such as the specific Multikoll transpiring glue and the Multijoint transpiring grout.

For outdoor installation, for long-lasting resistance, claddings must be protected with Biofin transpiring protection treatment.

! For perfect laying of Biopietra claddings, each pallet delivered contains instructions manual concerning the laying of each product line.

Insist that the builder spend at least 5 minutes to carefully read the laying instructions regarding the specific product purchased or seek advice by watching our laying instructions video on our website: www.biopietra.com.

If you follow these simple recommendations you will have successful results and enjoy the advantages described above.

Questo QRCode è collegato alla pagina dedicata sul sito internet:

This QRCode is connected to the dedicated page on the internet site:

Dieser QR Code ist mit der entsprechenden Seite im Internet verbunden:

Ce QRCode est relié à la page spécifique sur le site internet :

QRCode



http://www.biopietra.com/biopietra-istruzioni_posa.html



BIOPIETRA | COLLA - STUCCO (*Glue - Grout*)

COLLA PER PAVIMENTI E RIVESTIMENTI (*Glue for Floorings and Claddings*)

Description	Colour Range	Package	Weight	Suitable for Inside	Suitable for Outside	Coarse-Grained	Fine-Grained	Pallet Quantity	Glue and Grout Estimated Quantities
Multikoll Colla	Grigio	1 Bag	25 Kg/Bag	•	•		•	60 Bags	Floorings: 5-6 Kg/Sqm Stones: 4-6 Kg/Sqm Flats: 3-4 Kg/Sqm



STUCCO PER RIVESTIMENTI (*Grout for Claddings*)

Description	Colour Range	Package	Weight	Suitable for Inside	Suitable for Outside	Coarse-Grained	Fine-Grained	Pallet Quantity	Glue and Grout Estimated Quantities
Biostucco Multijoint	Avorio	1 Bag	25 Kg/Bag	•	•	•		50 Bags	Stones: 4-6 Kg/Sqm Flats: 3-4 Kg/Sqm
Biostucco Multijoint	Bianco Antico	1 Bag	25 Kg/Bag	•	•	•		50 Bags	Stones: 4-6 Kg/Sqm Flats: 3-4 Kg/Sqm
Biostucco Multijoint	Cocciopesto	1 Bag	25 Kg/Bag	•	•	•		50 Bags	Stones: 4-6 Kg/Sqm Flats: 3-4 Kg/Sqm
Biostucco Multijoint	Grigio Chiaro	1 Bag	25 Kg/Bag	•	•	•		50 Bags	Stones: 4-6 Kg/Sqm Flats: 3-4 Kg/Sqm
Biostucco Multijoint	Grigio Scuro	1 Bag	25 Kg/Bag	•	•	•		50 Bags	Stones: 4-6 Kg/Sqm Flats: 3-4 Kg/Sqm
Biostucco Multijoint	Perla	1 Bag	25 Kg/Bag	•	•	•		50 Bags	Stones: 4-6 Kg/Sqm Flats: 3-4 Kg/Sqm
Biostucco Multijoint	Terra	1 Bag	25 Kg/Bag	•	•	•		50 Bags	Stones: 4-6 Kg/Sqm Flats: 3-4 Kg/Sqm



STUCCO PER PAVIMENTI (*Grout for Floorings*)

Description	Colour Range	Package	Weight	Suitable for Inside	Suitable for Outside	Coarse-Grained	Fine-Grained	Pallet Quantity	Glue and Grout Estimated Quantities
Biostucco Multijoint	Pietra	1 Bag	25 Kg/Bag	•	•		•	50 Bags	5-6 Kg/Sqm
Biostucco Multijoint	Grigio Chiaro	1 Bag	25 Kg/Bag	•	•		•	50 Bags	5-6 Kg/Sqm




Multikoll



Biostucco Multijoint

TRATTAMENTI PER RIVESTIMENTI (*Treatments for Claddings*)

Description	Colour Range	Package	Estimated Quantities	Suitable for Inside	Suitable for Outside	Laying with no joint	Laying with Grout
*Ravvivante per Pietra (*Colour-enhancing Treatment)	Neutro Trasparente (Neutral Transparent)	Bin of 1 Lt	Changeable	•			
Silifin	Neutro Trasparente (Neutral Transparent)	Bin of 1 Lt	1 Lt = 3 Sqm	•	•		
Silifin	Neutro Trasparente (Neutral Transparent)	Bin of 5 Lt	1 Lt = 3 Sqm	•	•		
Silifin	Neutro Trasparente (Neutral Transparent)	Bin of 10 Lt	1 Lt = 3 Sqm	•	•		

 *Attention! The product has to be watered down to reach the desired effect


 TRATTAMENTI PER PAVIMENTI (*Treatments for Floorings*)

Description	Colour Range	Package	Estimated Quantities	Suitable for Inside	Suitable for Outside	Laying with no joint	Laying with Grout
Trattamento Impregnante Base (Base Treatment)	Neutro Trasparente (Neutral Transparent)	Bin of 5 Lt	1 Lt = 10 Sqm	•	•		
Trattamento Impregnante Hard (Lucido) (Hard Treatment - Polishing-)	Neutro Trasparente (Neutral Transparent)	Bin of 5 Lt	1 Lt = 10 Sqm	•	•		
Trattamento Protettivo Over (Opaco) (Over Treatment -Matt-)	Neutro Trasparente (Neutral Transparent)	Bin of 5 Lt	1 Lt = 10 Sqm	•	•		


 TRATTAMENTI PER PAVIMENTI BIOCOTTO (*Biocotto Floorings Treatments*)

Description	Use and Effect	Package	Estimated Quantities	Suitable for Inside	Suitable for Outside	Laying with no joint	Laying with Grout
Detergente Acido Profumato Deoxal (Deoxal Perfumed Acid Detergent)	Pulizia prima del Trattamento (Clean Before Using the Treatment)	Bin of 5 Lt	1 Lt = 10 Sqm	•	•		
Detergente Neutro Day (Day Detergent for Biocotto Floorings)	Pulizia e Mantenimento (Cleaning and Maintenance)	Bin of 5 Lt	1 Lt = 10 Sqm	•	•		
Protettivo Impermeabilizzante 001 Finitura Opaca (Biocotto Floorings Treatment 001 - matt finishing)	Naturale (Natural)	Bin of 5 Lt	1 Lt = 10 Sqm	•	•		
Protettivo Impermeabilizzante 002 Finitura Lucida (Biocotto Floorings Treatment 002 - polish finishing)	Naturale (Natural)	Bin of 5 Lt	1 Lt = 10 Sqm	•			
Trattamento Protettivo 001 Impregnante (Protective and Impregnating Treatment 001)	Naturale (Natural)	Bin of 5 Lt	1 Lt = 10 Sqm	•			
Trattamento Protettivo Master (Master Treatment)	Impregnante (Impregnating Treatment)	Bin of 5 Lt	1 Lt = 10 Sqm	•	•		



LAYING ACCESSORIES



BA Bianco Antico



TE Terra



CO Cocciopesto



AV Avorio



GC Grigio Chiaro



GS Grigio Scuro



1 SALES CONDITIONS

THE FOLLOWING SALES CONDITIONS FULLY AND EXTENSIVELY REGULATE ANY COMMERCIAL RELATIONSHIP BETWEEN KERMA S.p.A. AND ITS CUSTOMERS.

1.1. Introduction

The commercial relationships between Kerma S.p.A. and its Customers are exclusively governed by the following general sales conditions, excluding any other agreement if not made in writing; even the simple sending of an order implies the Customer's full acceptance of the following conditions.

1.2. Liability

Kerma S.p.A. is not liable either for any direct and/or indirect damage or loss resulting from the sale of Kerma's goods, or for delayed and/or non-delivery of the product, or for the correspondence of the goods to the specifications published in the catalogue, or for any other fact not directly attributable to Kerma S.p.A.

1.3. Technical information

Any technical information in the catalogue or in the price list is extracted from information provided to Kerma S.p.A. by the manufacturers of the goods. Therefore Kerma S.p.A. reserves the right to change and/or adjust the technical information of the products in the catalogue according to the manufacturer's communications received from time to time and, even more, according to appropriate tests performed by its *Quality Control*, even without any advance notice.

1.4. Orders

Orders transmitted to Kerma S.p.A. - directly, or through agents of Kerma S.p.A. - shall be considered accepted only if they arrive at Kerma S.p.A. by fax, e-mail, or on-line form, and shall be considered confirmed only and exclusively after a written confirmation sent by Kerma S.p.A., which shall assume contractual value between the Parties.

1.5. Delivery times

The delivery times indicated in the order are approximate and bind Kerma S.p.A. only if expressly declared as binding. Consequently, an eventual delayed delivery does not authorize the Customer to cancel the order, reject the goods, or make a request for damages. Events of force majeure can extend the delivery times estimated in the contract for a period corresponding to the duration of the impediment, unless Kerma S.p.A. wishes to cancel the contract.

1.6. Terms of delivery

The conditions provided by INCOTERMS 2000 shall apply, as a rule, to the terms of delivery of the goods and to the risks connected to their sale. **In case of missing indication of a specific delivery condition of INCOTERMS 2000, the goods will be**

shipped at the risk and on behalf of the Customer - regardless of the delivery place - and all the risks are transferred to the Customer at the time of the delivery of the goods: in this case "delivery" means the moment in which the goods are taken from Kerma's warehouses, or from the warehouses in Sassuolo - if shipped "CPT Sassuolo" (Carriage Paid To). In case of "Ex-Works" delivery, the carrier designated by the Customer must have regular permits, in compliance with the laws in force.

1.7. Complaints

Any complaint about defects, visible damage or incomplete delivery will not be accepted if the Customer - or his/her representative - does not communicate the complaint within 8 days from the receipt of the goods.

In case of a delivery acknowledged by Kerma S.p.A. as non-compliant, the obligation of Kerma S.p.A. is limited to the replacement or the reimbursement of the value of the goods, excluding any request for damages.

Kerma S.p.A. will compensate eventual defects previously verified by the Technical Department of the Company with replacement of goods. If the goods cannot be replaced, the Customer has the right to be reimbursed for the value of unusable and non-replaceable goods. In this case Kerma S.p.A. may freely dispose of the goods claimed. It is expressly agreed that the Customer cannot request any compensation for damages, except for voluntary or serious negligence by Kerma S.p.A.

The information that Kerma S.p.A. provides about the goods ready to be delivered, their characteristics and performances, or about their use, is merely descriptive and explanatory. The features of the products are guaranteed only if defined in writing (e.g. as per specifications); in case of sale referred to a sample previously received, the features of the sample - considering the typical tolerances of this field - will be considered the valid ones.

Any differences compared to samples or previous deliveries or other indications do not justify any complaint from the Customer, unless clearly stated in a contract between the Parties.

Goods returned by the Customer - upon Kerma S.p.A.'s authorization - have to be returned "CPT Sassuolo" to Kerma S.p.A., unless otherwise indicated by Kerma S.p.A.

1.8. Ownership

Sold goods remain property of Kerma S.p.A. until the full payment has been received.

In case of payment by instalments, the ownership will be propor-

tionally transferred upon the payment of each instalment. Partial payments will first be attributed to least recent sales.

In case of returning goods for non-payment, the Customer will have to pay Kerma S.p.A. an amount for devaluation at a rate of 1.5% of the price of the goods for each month of possession of the same, from the time of the delivery to that of the return.

1.9. Delayed payments

In case of delayed payment, interests for late payment will be charged to the Customer - starting from the first day after the expiry date - automatically calculated (without formal notice) at the legal rate of interest increased by 7 percentage points, unless otherwise agreed.

1.10. Guarantees of Kerma S.p.A.

The fixing of claddings and floorings of Kerma S.p.A. is guaranteed only and exclusively if they have been installed using the adhesive expressly designed and distributed by Kerma S.p.A., and if the products have been installed in accordance with the installation instructions given by Kerma S.p.A.

The installation of the material without the adhesive guaranteed by Kerma S.p.A. causes the loss of the right to take any action for defects - both obvious and hidden - involving implicit waiver of the guarantee provided for by Art. 1490 of the Italian Civil Code. Differences in shades cannot be reported as a defect of the goods. In any case, Kerma S.p.A.'s guarantee only covers the replacement of the material found defective, excluding any further and different obligation. Any claims about the material do not give the Customer the right to fully or partially suspend or delay the agreed payment. Any quarrel regarding the verification of the warranty right, the determination of the damage and its quantification that cannot be amicably settled between the Parties shall be arbitrated according to what stated in section 1.11. ("**Competent Court**").

1.11. Competent Court

Any dispute concerning the performance or the interpretation of the sales conditions of Kerma S.p.A. will fall within the competence of the Court of Brescia (Italy). Should a Third Party summons a Customer of Kerma S.p.A. in any other Court, the Customer waives from now on the possibility to summon Kerma S.p.A. as guarantor in any Court different from the above indicated one. In case of a different interpretation of these general sales conditions in the foreign languages, the official legally binding version is the Italian one.

2 IMPORTANT INFORMATION

THE INSTRUCTIONS BELOW PROVIDE THE CUSTOMER WITH ANY NECESSARY INFORMATION FOR THE BEST USE OF THE PRODUCTS DISTRIBUTED BY KERMA S.p.A.

Replacements of goods will not be accepted for orders sent after having seen the products in the catalogue only, and without having inspected an original sample.

All the products distributed by Kerma S.p.A. are supplied with conventional measure (Sqm./Lm./Pcs.) including joint.

Before fixing wall cupboards or other items on walls covered with products of Kerma S.p.A., make sure that the anchorage is well attached to the supporting structure. An anchorage limited to the claddings only is not suitable.

Since the colours of the products illustrated may differ from the ones of the original models, it is always recommended to examine the samples available in the showrooms of the retailers authorized by Kerma S.p.A.

As all the articles distributed by Kerma S.p.A. are produced with natural materials, their colours and shades could vary according to the different batches. Any difference in colours and shades is therefore an intrinsic feature of the stones. In case of any doubt, ask Kerma S.p.A. for new samples.

The quantity of the goods described on the respective packagings - and also indicated in the order confirmations issued by Kerma S.p.A. - is referred to the laying of the materials **considering an**

average joint between 1,5 cm. and 3 cm. for bricks, and between 3 cm. and 5 cm. for stones. In any case, it is recommended to consider the specific technical information given by Kerma S.p.A. In case of "laying with no joint", or when the joint is narrower than the standard one, it is necessary to calculate an increase of the articles to be laid of about 15%-20% - except for those items usually laid with no joint (e.g. the article "SCAGLIA").

In order to make the laying of the different articles distributed by Kerma S.p.A. as easy and as fast as possible, and to ensure a secure and resistant fixing, Kerma S.p.A. has specially formulated proper adhesives and grouts (e.g. the "MULTIKOLL" glue and the "BIOSTUCCO MULTIJOUNT"), so as to avoid any problem caused by the use of non-suitable products. No guarantees will be given in case of laying without the proper adhesives and grouts distributed by Kerma S.p.A.

Since all the articles distributed by Kerma S.p.A. are produced with natural materials, there might be differences in colours or shapes - even if delivered with the same shipment.

Therefore, to obtain a satisfactory laying result of our claddings and floorings, it is recommended not to lay them at random. We usually suggest to open all the packagings received - taking them here and there from the different pallets - and to simulate the laying on the ground according to one's own taste.

In any case, the necessary quantity of products should be bought en bloc, so as to avoid eventual differences between the articles already laid and the goods ordered afterwards.

All the products distributed by Kerma S.p.A. present a natural look rich in shades and variations, both in shape and in colour.

To make the laying easier, as well as to obtain a more elegant result, Kerma S.p.A. supplies each single packaging containing a range of sizes and different shades - even flat stones can differ in colour from their corners. Therefore, to obtain an excellent result, we suggest to mix and match the single pieces coming from different packagings before the laying.

Since all the articles distributed by Kerma S.p.A. are produced with natural materials, they do not require any particular maintenance. The use of sandblasts, high pressure washers, or acid based products is therefore not recommended.

Any complaint must be submitted only and exclusively before the laying of the materials. Kerma's responsibility is limited to the replacement of the defective products previously verified by the Company's Technical Department, and does not include any costs for removal or laying.

It is recommended to follow strictly the laying instructions below.

3 CLADDINGS

THE INSTRUCTIONS BELOW ARE ESSENTIAL FOR A CORRECT LAYING, TREATMENT, AND MAINTENANCE OF THE CLADDINGS DISTRIBUTED BY KERMA S.p.A.

3.1. Substrates

Laying over concrete wall.

Prior to the laying of the products, make sure that the substrate is clean and, if necessary, remove any impurities.

Should there be on the substrate any oily deposits, moulds or releasing liquids, treat the substrate before the laying with a proper product, then rinse carefully with water.

The average estimated quantity needed of adhesive varies between 5 and 8 Kgs./Sqm., depending on the flatness of the substrate and on the type of product to lay. For more precise details, follow the technical specifications given by Kerma S.p.A. referred to any single article - also available on the web site www.kerma.it.

Laying over premixed plaster.

Prior to the laying of the products, make sure that the substrate is resistant enough for the anchorage - i.e. that it does not crumble. As this kind of surface is particularly absorbent, if necessary moisten the wall before laying the products.

Laying over perforated bricks and other kind of bricks.

First of all, apply one coat of specific basic plaster, and let the substrate dry - or plaster the wall. Then apply with a spatula one coat of specific adhesive distributed by Kerma S.p.A., and lay the products according to the laying instructions indicated.

Laying over plaster with ruined outer surface.

The outer surface of the plaster - in particular the premixed one - is usually not enough resistant for the anchorage of stones or of other claddings. Therefore, before laying, it is necessary to fix to the wall a galvanized electrosoldered backing reinforcement of 5x5 cm. with 1 mm. Ø. Fix the mesh with plugs every 40 cm., then apply a coat of specific glue distributed by Kerma S.p.A., and lay the claddings.

Laying over painted or varnished plaster.

To remove the paint or the varnish, scrape the substrate off, and scratch the plaster extensively. Wash thoroughly with water to remove any remaining dust. Apply then a coat of specific adhesive distributed by Kerma S.p.A., and lay the products according to the laying instructions indicated. Should the paint or the varnish be particularly stubborn, after having scratched the wall it is advis-

able to fix with plugs every 40 cm. to the substrate a galvanized electrosoldered backing reinforcement of 5x5 cm. and 1 mm. Ø. Then apply a coat of specific adhesive distributed by Kerma S.p.A., and lay the claddings.

Laying over old walls or decadent plaster.

Sandblast the surface to remove all soft, crumbled parts. Fix to the wall a galvanized electrosoldered backing reinforcement with plugs every 30 cm. and 3-4 cm. deep, then apply the specific adhesive distributed by Kerma S.p.A., and lay the products according to the laying instructions indicated.

Indoor laying.

If the wall is new - i.e. unpainted and unvarnished - and clean, lay the claddings directly over the wall using the specific adhesive distributed by Kerma S.p.A.

Laying over metal wall.

Make sure that the wall is perfectly clean and dry. Use a proper and specific adhesive for laying over metal (not supplied by Kerma S.p.A.).

Laying over plasterboard.

It is possible to lay the claddings directly over the plasterboard using the specific adhesive supplied by Kerma S.p.A. In any case, it is recommended to apply first a coat of "primer", in order to reduce any water absorption.

Laying over gypsum wallboard.

Make sure the wall is clean and dry, then use a proper adhesive for laying over gypsum wallboards.

Laying over External Thermal Insulation Composite System (ETICS).

Make sure that the external insulation is well fixed to the wall, in order to be able to bear the weight of the material to be laid. In case of external insulation over plaster with rainned outer surface, or of pre-existing external insulation or of external insulation with mineral wool panels, it is recommended to fix with proper plugs to the underlying bearing structure a galvanized electrosoldered backing reinforcement of 5x5 cm. and 2 mm. Ø. Then apply a coat of specific adhesive distributed by Kerma S.p.A. until the wire mesh is completely covered and by the claddings.

Laying over wooden wall.

First waterproof the wooden wall using proper barriers guaranteed

to be water resistant. Then fix the wire mesh with galvanized plugs each 20 cm., apply a coat of specific adhesive distributed by Kerma S.p.A., and lay the claddings.

Laying over flower box, retaining wall, flower-bed, etc.

First of all, it is necessary to lay a sheath and to tar the internal surface containing the soil, the potting compost, or the filling material. Then lay the claddings over the external sides, using the specific adhesive distributed by Kerma S.p.A.

ATTENTION

Do not lay claddings over buildings' expansion joints.

WARNING

DO NOT LAY THE CLADDINGS IF THE AMBIENT TEMPERATURE IS LOWER THAN +5°C OR HIGHER THAN +35°C.

DO NOT LAY IF THE SUBSTRATE'S TEMPERATURE IS NEAR TO 0°C OR HIGHER THAN +30°C.

In case of a possible drop of the temperature at night, it is advisable to cover the laid claddings with some mineral wool.

It is recommended to suspend the laying operations in case of a temperature near to 0°C, or in case of possible frost during the 24 hours immediately after the laying.

Do not lay the claddings over frozen or thawing substrates.

It is not advisable to lay the products in areas where substances like chlorine or other chemical products are present, as they could ruin or fade the claddings.

Do not lay near flowing water, as the claddings could stain and become damaged.

LAY WITH CAUTION IF THE WEATHER IS PARTICULARLY WINDY, since the draughts usually create a transparent film on the glue, preventing a perfect adhesion of the claddings to the substrate.

IN SUMMER, OR WHENEVER THE TEMPERATURE IS PARTICULARLY HIGH, in order to avoid an excessive absorption of the water contained into the glue, carefully dampen both the back

of the claddings and the wall before laying the products. No water film must be present onto the claddings while laying. Moreover, make sure that the substrate's temperature does not exceed the critical point for the glue, since a too fast evaporation of the water contained into the glue can stop the chemical reaction of adhesion.

SHOULD IT BEGIN TO RAIN WHILE LAYING OUTSIDE, IMMEDIATELY COVER the claddings already laid until the wall is completely grouted, because the rain, running down the wall, can irreparably stain the claddings washing the still wet adhesive away.

TO MAKE THE LAYING EASIER, we suggest to draw on the wall each 40 cm. some PERFECTLY HORIZONTAL LINES using a proper tool.

SOME CLADDINGS MAY HAVE A WHITE FILM (cement residue) ON THE BACK; in this case, it is advisable to brush the back of each piece off before laying, as well as to water slightly the adhesive mixture, so as to absorb any cement residues.

AT THE END OF EACH DAY, in order to remove any dust, mortar, or adhesive residues, brush the laid claddings with a completely dry broomcorn brush.

DO NOT USE ANY WET SPONGE OR WATER TO TAKE THE GLUE OR THE GROUT AWAY FROM THE CLADDINGS.

Avoid the contact with water mixed with salts or other substances used for melting snow or ice. Do not use any liquids containing acids or chlorine to clean the claddings.

3.2. Cladding laying instructions

HOW TO APPLY GLUE

- Prior to installation, check the suitability of the substrate, which must be: insulated, dry, stable, solid, compression resistant, flat, and clean. In fact, dust, grease, oil, wax, paint, varnish, mould, releasing agents, etc. may compromise the good result of the adhesion. For more specific details, see section 3.1. ("Substrates").
- **To compare any difference in shade of the single articles, it is advisable to open all the packagings received** - taking them here and there from the different pallets - simulating the laying on the ground according to one's own taste.
- As per the instructions indicated on the packaging, mix the adhesive with water until it becomes homogeneous and consistent enough to keep the claddings over the wall.
- After having prepared the glue, it is advisable to wait a few

minutes, then mix it again before using it.

- Apply the glue with a proper toothed spatula over an area of no more than 2 Sqm. at a time, so as to avoid that the adhesive dries and hardens before the laying is finished, creating a film that might compromise the future adhesion of the claddings.

ATTENTION

Never use thickened glue. Never add water to thickened glue with the purpose of using it again.

- Before laying the claddings, apply at the same time on the back of the stones a copious coat of glue, and lay them over the wall. This "double adhesion" is very important to obtain a secure and lasting adhesion.
- To ensure a perfect adhesion, lay the single stones pressing them over the substrate and moving them to and fro, until the glue squeezes out. See picture 1.

ATTENTION

Should the glue not squeeze out, it will be necessary to remove the single stone to add more glue on its back. Make sure there is no space on the back side of the claddings without glue.

- Corners have to be laid first, alternating long and short sides. Then go on laying the other stones towards the middle of the substrate, always trying to mix colours and shapes as much as possible, so as to create a "random" effect.
- Any adhesive's smears can be removed from the claddings with a spatula after two/three hours; then brush off with a COMPLETELY DRY sponge or brush.

ATTENTION

Never use water to remove glue and/or grout.

To lay the goods, use exclusively the products guaranteed by Kerma S.p.A.

4 FLOORINGS

THE INSTRUCTIONS BELOW ARE ESSENTIAL FOR A CORRECT LAYING, TREATMENT, AND MAINTENANCE OF THE FLOORINGS DISTRIBUTED BY KERMA S.p.A.

4.1. Floor ground

Laying over concrete creed.

The thickness of the floor ground can vary between 8 and 12 cm. If the floor ground has been recently laid, let it dry first for at least 28-30 days. Make sure, however, that the concrete screed is perfectly dry, clean, and flat. Any cracks and holes must be filled before laying. The joint width should be of at least 15 mm.

ATTENTION

Where there is a floor heating, turn it off at least 60-70 hours before laying, and wait at least 2-3 weeks before turning it on again after laying. In any case, it is recommended to gradually increase the temperature from the minimum to the maximum.

All the floorings distributed by Kerma S.p.A. are excellent thermic conductors, therefore they are recommended in case of floor heating systems. The heat conduction is also guaranteed by the adhesive supplied by Kerma S.p.A., which has been expressly formulated for this purpose.

4.2. Flooring laying instructions

The floorings distributed by Kerma S.p.A. are manufactured with natural materials. As a result, the floorings have different colour shades, as well as irregular surfaces. To obtain an excellent result, we suggest to mix and match the single pieces taking individual slabs from different pallets during laying.

LAYING, TREATMENT, AND MAINTENANCE ARE VERY EASY. FOR ANY DETAILS, SEE THE SPECIFIC AND DETAILED SECTIONS BELOW.

HOW TO APPLY GLUE

- According to the instructions indicated on the packaging, mix the adhesive with water until it becomes homogeneous.
- Clean and moisten the stones before laying them over the concrete screed.
- Apply the glue with a proper toothed spatula over the ground floor, making sure it is perfectly clean.
- Before laying, apply also on the back of each stone a copious coat of the glue distributed by Kerma S.p.A. ("double adhesion").
- To ensure a perfect adhesion of the floorings to the concrete screed, lay the single stones pressing them over the floor ground and moving them to and fro, until the glue squeezes out. The joint width should be of at least 15 mm.

ATTENTION

In case of a floor ground different from the standard concrete screed, it is recommended to use specific and proper adhesives, according to the kind of floor ground over which the floorings have to be laid.

HOW TO APPLY GROUT

- About 24 hours after laying, grout the flooring with the specific grout with a rubber spatula over an area of no more than 2 Sqm. at a time. Immediately clean the grouted surface with a sponge soaked in clean water.
- Any remaining grout inside the "bush-hammering" - i.e. the unevenness of the surface - should not be completely removed, as it gives a real and old-fashioned aspect to the stones. In any case, to obtain a perfectly clean surface, each single joint should be grouted using the proper "jug", and any grout smears should be immediately cleaned.

Never use oxides to colour the grout. Use exclusively the **Biopietra**® grout for floorings distributed by Kerma S.p.A.

DO NOT LAY THE FLOORINGS IF THE AMBIENT TEMPERATURE IS LOWER THAN +5°C OR HIGHER THAN +35°C.

DO NOT LAY IF THE TEMPERATURE OF THE FLOOR GROUND IS NEAR TO 0°C OR HIGHER THAN +30°C.

HOW TO APPLY TREATMENTS

All the protective treatments for floorings distributed by Kerma S.p.A. have been conceived to make the treatments' application very easy. Being water-based, and so **ecofriendly**, they respect the environment.

The treatments supplied by Kerma S.p.A. are breathable, therefore any dampness present inside the stone can go up and come out through the protective layer.

It is possible to walk on the flooring already after one day from the treatment's application, but it is advisable to wait for a few days before moving furniture and heavy objects.

All the treatments contain "synthetic polymers" in aqueous emulsion, natural and synthetic waxes, duly mixed with special additives conceived to reach the best result, as well as a good levelling, a rapid drying, and an excellent stain resistance.

ATTENTION

Do not apply any treatment over floorings laid in the swimming pool area, as the non-slipping feature could be modified or reduced when walking with bare feet in presence of water and chlorine.

In case of need, to remove the treatment it is necessary to use a specific "de-waxing" product.

TREATMENTS FOR FLOORINGS LAID INSIDE AND OUTSIDE

In case of stains or foot-marks, mop up the flooring with an eco-friendly cleaning product in order to well clean the surface.

ATTENTION

No stains or rings must be present onto the flooring before the treatment.

After grouting, apply onto the flooring the treatments as indicated below, according to the desired final result:

to obtain a **polish final effect**:

- 1 coat of oil- and water-resistant treatment "TRATTAMENTO IMPREGNANTE BASE" (applied with paint roller or mop);
- 1 coat of polishing treatment "TRATTAMENTO IMPREGNANTE HARD" (after a few hours from the previous treatment).

Estimated quantity needed:

1 litre each 10-15 Sqm. of flooring.

To obtain a **matt final effect**:

- 1 coat of oil- and water-resistant treatment "TRATTAMENTO IMPREGNANTE BASE" (applied with paint roller or mop);
- 1 coat of matt treatment "TRATTAMENTO PROTETTIVO OVER" (after a few hours from the previous treatment).

Estimated quantity needed:

1 litre each 10-15 Sqm. of flooring.

MAINTENANCE

For daily maintenance, the mild detergent "DETERGENTE NEUTRO DAY" is recommended. It is also possible to use any other neutral non-foaming detergent or, simply, water with Marseille liquid soap.

Preparation: dilute 1 part of "DETERGENTE NEUTRO DAY" with a quantity of water which can vary between 10 and 50 parts, according to requirements.

4.3. Specifications for floorings

Biopietra® paving stones, model in single pieces to be applied over appropriate surfaces.

The floorings must have the following certifications:

- Frost resistance: 100 freezing-thawing cycles, in compliance with the UNI EN ISO rules.
- Colour fastness to light: in compliance with the DIN rules.
- Non-slip degree: Class C with bare feet, and R11 degree with footwear, in compliance with the DIN rules.

5 BIOCOTTO FLOORINGS

SINCE ALL THE BIOCOTTO FLOORINGS ARE HANDMADE, FOR A CORRECT LAYING AND USE OF THE TREATMENTS IT IS IMPORTANT TO FOLLOW THE INSTRUCTIONS BELOW CAREFULLY.

5.1. Floor ground

For any information about floor grounds, see section 4.1. ("Floor ground").

5.2. Flooring laying instructions

It is possible to lay the Biocotto floorings both with adhesive, and with cement.

For any details, see the information indicated in chapter 4 ("FLOORINGS").

After laying, make sure the flooring is completely dry.

Drying time may vary, depending on the type of adhesive used:

- about 15 days, if laid with glue;
- about 30-35 days, if laid with cement.

After that period, it is possible to grout, as indicated in the previous chapter.

ATTENTION

In order to protect the flooring from any stains or rings, before grouting it is advisable to apply a coat of impregnating treatment "TRATTAMENTO PROTETTIVO MASTER".

TREATMENTS

Kerma S.p.A. is not responsible for any problems about the application of treatments.

After grouting, wash the flooring - using a sponge or a cloth - with the perfumed acid detergent "DETERGENTE ACIDO PROFU-

MATO DEOXAL" mixed with water (1 part of detergent in a quantity of water that can vary between 10 and 50 parts, according to requirements).

Rinse copiously with clean water.

Use protective gloves.

After the cleaning with the specific detergent, wait about 2-5 days - depending on the season - until the flooring is completely dry, then apply the treatments as indicated below.

TREATMENTS FOR BIOCOTTO FLOORINGS LAID INSIDE

To obtain a **polish final effect**:

- 2 coats of impregnating treatment "PROTETTIVO 001 IMPREGNANTE";
- 2 coats of polishing treatment "PROTETTIVO IMPERMEABILIZZANTE 002 FINITURA LUCIDA".

To obtain a **matt final effect**:

- 2 coats of impregnating treatment "PROTETTIVO 001 IMPREGNANTE";
- 2 coats of matt treatment "PROTETTIVO IMPERMEABILIZZANTE FINITURA OPACA".

Estimated quantity needed: consider about 1 litre of treatment each 10 Sqm. of flooring for each coat to be applied.

TREATMENTS FOR BIOCOTTO FLOORINGS LAID OUTSIDE

To obtain a **natural final effect**:

- 2 coats of impregnating treatment "TRATTAMENTO PROTETTIVO MASTER".

To obtain a **satin final effect**:

- 2 coats of impregnating treatment "TRATTAMENTO PROTETTIVO MASTER";
- 2 coats of matt treatment "PROTETTIVO IMPERMEABILIZZANTE FINITURA OPACA".

Estimated quantity needed: consider about 1 litre of treatment each 10 Sqm. of flooring for each coat to be applied.

It is important to apply this kind of treatment on Biocotto floorings laid outside, in order to make the floorings both oil-resistant and breathable.

MAINTENANCE

For a correct daily maintenance with our water based products, the mild detergent "DETERGENTE NEUTRO DAY" is recommended.

Preparation: dilute 1 part of "DETERGENTE NEUTRO DAY" with a quantity of water which can vary between 10 and 50 parts, according to requirements.

ATTENTION

Do not apply any treatment over floorings laid in the swimming pool area, as the non-slipping feature could be modified or reduced when walking with bare feet in presence of water and chlorine.

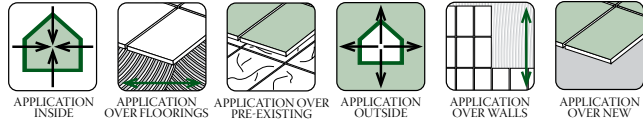
6 GLUE - TECHNICAL SHEETS

THE TECHNICAL SHEETS PROVIDE THE CUSTOMER WITH ANY INFORMATION ABOUT THE TECHNICAL FEATURES, THE DETAILED COMPOSITION, AND THE PREPARATION OF THE PRODUCT.

"MULTIKOLL" - Technical sheet



THE EN 12004 ADHESIVE IS RECOMMENDED FOR THE FOLLOWING USES:



FEATURES

High workability.
High adhesion.
Enables large size claddings to be laid over uneven sub-bases with high tolerances.

PREPARATION

Mix the product with the 26% of clean water with a mechanical agitator until the mixture is homogeneous and lump-free. The mixture remains workable for about 6 hours - depending on the weather conditions.

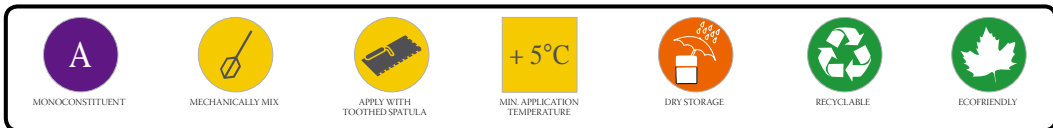
It is particularly suitable for inside and outside laying of klinker, glazed porcelain, and large size claddings with very high tolerances on the back of the claddings and/or on the sub-base. It is also suitable for laying over uneven sub-bases with different thickness, over smooth precast concrete sub-bases, and over heating floorings.

TECHNICAL FEATURES

	Aspect	Powder
	Colour	Grey
	Mixture life	8 hours
	Application temperature	from +5°C to +35°C
	Open time (EN 1346)	20 minutes
	Adjustment time	35 minutes
	Slip (EN 1308)	0 mm
	Tensile strength after 28 days (EN 1348)	2,2 N/mm ²
	Waiting time before walking	24 hours
	Waiting time before grouting joints	24 hours
	Thermal resistance	from -30°C to +90°C
	Shelf-life in dry storage	12 months

Test conditions: temperature 23±2°C, 50±5% relative humidity, and air speed in the test area <0.2 m/s.

In compliance with the EN12004 rules - type and class C2TE.



7 GROUT - TECHNICAL SHEETS

THE TECHNICAL SHEETS PROVIDE THE CUSTOMER WITH ANY INFORMATION ABOUT THE TECHNICAL FEATURES, THE DETAILED COMPOSITION, AND THE PREPARATION OF THE PRODUCT.

"BIOSTUCCO MULTIJOINT" - Technical sheet

BIOSTUCCO FOR INTERIOR AND EXTERIOR USE, IN COMPLIANCE WITH THE EN 998-1 AND 998-2 STANDARDS

FEATURES

High workability.
High breathability.
Bio-compatible.
Guaranteed against the most severe weather conditions, such as pouring rain, and ordinary or salty fog.
Strict tests ensure the excellent quality of the product.



COMPOSITION

Pure hydraulic binder.
Aerated lime.
Selected silica and quartz-bearing sands.
Marble dust.
Celluloses and starches.

MIXTURE PREPARATION

Add water (7 Lt. each 25 Kgs. of product) to the powdered product, and mix with proper whisk for about 10 minutes, until the mixture becomes soft and fluid.

TECHNICAL FEATURES

	Aspect	Powder
	Colour	See the advertising material of Kerma S.p.A.
	Application temperature	from +5°C to +35°C
	Compression resistance	M5 category
	Adhesion to substrate	0,6 N/m ²
	Fire resistance	A1 class
	Shelf-life in dry storage	12 months



MONOCOCONSTITUENT



MECHANICALLY MIX



APPLICATOR SUPPLIED WITH BIOSTUCCO



MIN. APPLICATION TEMPERATURE



DRY STORAGE



RECYCLABLE



ECOFRIENDLY

IMPORTANT INFORMATION **8** GUARANTEES

ALL THE PRODUCTS DISTRIBUTED BY KERMA S.p.A. ARE STRICTLY TESTED IN COMPLIANCE WITH THE EUROPEAN RULES IN FORCE. EACH PRODUCT IS GUARANTEED, AND OWNS OFFICIAL CERTIFICATIONS PROVING ITS QUALITY

8.1. Kerma's guarantees

Any product of Kerma's collections has been certified by periodical ANNUAL controls, in compliance with the UNI EN ISO European rules.

CLADDINGS:

Frost resistance: 100 freezing-thawing cycles, in compliance with the UNI EN ISO rules.

Fire resistance: non-combustible class 0, in compliance with the ISO/DIS rules.

Colour fastness to light: no change, in compliance with the DIN rules.

FLOORINGS:

Non-slip degree: class C> (24+40)* with bare feet, and R11 degree with footwear, in compliance with the DIN rules.

Compression strength: from 226 to 248 Kgs./cm², according to UNI* rules.

Bending resistance (floorings with 2,0-2,5 cm. thickness): clas-

sification 2; transitable with pneumatic tyres for private use, for handicraft, for commerce, or for the use of sales and/or show-room's areas, in compliance with the UNI EN ISO* rules.

Breaking load: from 1518 to 2451 N*; breaking stress: from 2958 to 3409 N*; modulus of rupture: from 9,2 to 10,5 N/mm².*

* indicative values, depending on the models.

8.2. Garanzia Biopietra®

SANDS

The sands are absolutely pure, and checked according to the European Rules in force, therefore complying with the CE European standards, in compliance with the 89/106/CEE rules.

Certifications:

- UNI EN 932-1 certification
- UNI EN 932-3 certification
- UNI EN 933-5 certification
- UNI EN 933-8 certification
- UNI EN 933-9 certification
- UNI EN 1097-2 certification
- UNI EN 1097-6 certification
- UNI EN 1367-1 certification
- UNI EN 1367-2 certification
- UNI EN 1367-4 certification
- UNI EN 1744-1 certification
- UNI EN ISO 9000 certification
- UNI EN ISO 9001 certification
- UNI EN 12620 certification
- UNI EN 13139 certification

tion are mineralogically pure. The white cements possess high mechanical resistance for this type of binder, as well as a high level of whiteness (pure, brilliant and stable), and an incomparable quality stability. Moreover, due to the specific thermal treatment for klinker, its firing reduces the pollution, as burning oil and/or natural gas (rather than coal) are used. The purity of the whiteness is ensured by the constant checking of the following three factors:

- **Brilliance:** this is the specific feature of white binders. It is measured by comparing the reflective power of a sample with that of a standard white.
- **Purity:** expresses the quantity of colour in the product.
- **Dominant wavelength:** identifies the shade of colour gradation.

The stability of the performance and the purity of the colour ensure an excellent result.

COLOUR PIGMENTS

The colour pigments are produced using inorganic ferrous oxides, which ensure an almost absolute colour fastness. These pigments, supplied by the world leader in the field, are produced using advanced technologies and are severely controlled, in compliance with the reference rules, which ensure an excellent durability over time:

- UNI EN ISO 9001;
- UNI EN ISO 9002;
- UNI EN ISO 14001.
- In accordance with the DIN 53388-54003 rules: WOOLSCALE (lightfastness from 1 to 8) = 8;
- CISQ e IQNET certifications (The international Certification Network);
- ISO EN 12878: in compliance with the rules about the use of pigments in the production process.

The **Biopietra®** production cycle is in the forefront in its field. Thanks to the purity of the raw materials used, **Biopietra®** is the inescapable choice for ecofriendly and biobuilding projects.

ALL THE PRODUCTS OF BIOPIETRA® COLLECTION, BIOPIETRA PRESTIGE COLLECTION AND BIOPIETRA MOOD, ARE NON-RADIOACTIVE AND ANAB CERTIFIED.

The physiochemical analysis of the aggregates are carried out by an accredited laboratory, therefore complying with the requirements of the *General Regulation*, as well as with the relative *SINAL rules*. This accreditation involves the control of the laboratory's technical competence, in compliance with the UNI CEI EN ISO/IEC 17025 rules.

CEMENT

The cements used for **Biopietra®** production are the result of an intense technological research, aimed to produce materials able to offer the traditional features of performance and durability of the cement binders, adding the aesthetic value of a peerless and constant white, stable over time.

The types of cement used in **Biopietra®** production are the result of a concentrated technical research, aimed at producing materials able to offer the traditional performance and durability properties of cementitious binders but, in addition, the aesthetic value of a whiteness that is unequalled, uniform and stable over time. The kaolins and the white limestones used in the cement's produc-

MISURAZIONE DELLA CONCENTRAZIONE DI RADIONATIVITÀ
RAPPORTO DI PROVA N. 2092

Data di rilascio: 20 luglio 2007

Committente: Istituto per la Certificazione Etica ed Ambientale
Strada Maggiore, 29 40125 Bologna

Determinazione campione: Campione di pietra ricostituita
Produttore: Kerma SpA
Via Aldina, 3 25080 Rafà di Parmesan

Prelevio del campione: Data indicata: 4 luglio 2007 Modaltà di prelevio: A cura del committente
Completato: 4 luglio 2007 Modaltà di consegna: Spedizione

Norme di riferimento: UNI 1097:1999 - "Radionuclidi naturali nei materiali da costruzione - Determinazione mediante spettrometria gamma ad alta risoluzione"

Risultati:

Radionuclide	19 luglio 2007		Codice colore V2002	
	Attività (Bq/g)	Concentrazione (Bq/g)	Attività (Bq/g)	Limite di rivelabilità (Bq/g)
²¹⁰ Pb	295,22	9	2	3
²¹⁰ Po	251,99	11,6	1,1	2,0
²¹⁰ Bi	609,32	10,3	1,1	2,0
²¹⁰ Pb	1120,28	8	3	6
²¹⁰ Bi	1754,51	9	3	6
²¹⁰ Ra	---	10,6	0,7	2,0
²¹⁴ Ac	338,49	<6	0	6
²¹⁴ Ac	911,07	<4	0	4
²¹⁴ Ac	948,99	<5	0	5
²¹⁴ Ra	---	<4	0	4
²¹⁴ Pb	---	<4	0	4
²¹⁰ Pb	238,63	<1,4	0	1,4
²¹⁰ Pb	583,1	<3	0	3
²¹⁰ Pb	---	<1,4	0	1,4
¹³⁷ Cs	661,62	<1,1	0	1,1
¹³⁷ Cs	1460,75	1,6	0	1,6

Indice di radioattività: **Valutazione Protezione 112 della Commissione Europea (DIN 61-428-876-0)**

Valore misurato	Valori di riferimento
1 = 0,035 ± 0,002	1 = 0,5 Esposizione 1 = 1,0 Controllo

Note:
 Modaltà per S.p.A. presso UNI 1097:1999

Il Titolare del Laboratorio: **Dr. Dino Giuliano Ferri**
 Il Responsabile di Laboratorio: **Ing. Massimo Esposito**
 Esperto Qualificato - N. 1984/Esposito

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Kerma S.p.A. controls the production process, and guarantees **non-radioactive products** to its Customers.

N° EDIL2009_616

Certificate of Conformity

Institute for Ethical and Environmental Certification

Certifies that

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Ecosystem	<i>The products and their components are not dangerous for the environment. Reduced energy consumption and reduced emissions to air of production process.</i>

Logo e Conformity Indications

Eco-building Materials
Complying with MAT_BIOEDIL.01
Ed.00 Rev.01

Date of first issue
July 27th, 2009
Res. Certificazione ICEA
Dr. Paolo Foglia

Date of revision
Segretario Nazionale ANAB
Arch. Giancarlo Allen

Expiry date
December 31st, 2011
Presidente ICEA
Dr. Gabriele Zappalà

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M.0401 - Ed.00 Rev.00

What is ICEA?

ICEA - Istituto per la Certificazione Etica ed Ambientale (Institute for Ethical and Environmental Certification) - with more than 10.000 controlled companies with high ethic, environmental, and social value, 300 technicians, and 23 Territorial Operative Organizations, is one of the most important institution in its field, both in Italy and in Europe. ICEA has the aim to promote fair trading, from the organic farming to the other bio-ecological sectors. It also has the purpose to offer a certification service according to the standards of independency, transparency, impartiality, and competence, able to increase the trust both of the suppliers and of the Customers towards the certified product.

What is ANAB?

ANAB - Associazione Nazionale Architettura Bio-ecologica (National Association Bio-ecological Architecture) - founded in Italy in 1989 with the aim to let the community know the risks for the people and for the environment related to the present building method, is the first association in its field. It has the purpose to completely modify the present model, through the diffusion of those building methods and of those building materials, which are able to respect both the people and the environment. Moreover, it takes care of the training of architects and other operators of the sector, in order to increase their ecological conscience.

PROGETTAZIONE:

Kerma S.p.A.

ART DIRECTION:

timmagine.it

PHOTO:

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Marino Colato

COPYWRITING:

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COLLABORAZIONE:

Laura Roberti

Elena Melito

IMPORTANT INFORMATION

Since all the articles distributed by Kerma S.p.A. are produced with natural materials, their colours and shades could change from one batch to another one. Any differ-

ences in shades and nuances of the single articles are therefore an intrinsic feature of the stones. In case of any doubt, please ask Kerma S.p.A. for new sample boards.

BIOPIETRA®

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