

# COMFORT DOMUS

*The role of locally-sourced materials in architecture and biophilic design*



# OUR HISTORY, FOUR PICTURES

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# DIATHONITE AND SENTINUM

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The origin of the name **DIASEN** comes from **Diathonite**, our line of cork-based renders and **Sentinum**, the Latin name of the Roman town where we are based



# SUSTAINABLE HUMANISM



Our deep roots in our homeland, our resignation of the good and the benefits to our people and our close attention to sustainability have allowed us to be certified as one of few Italian **B-CORP** and **BENEFIT CORPORATION** companies since 2017



# MILESTONES

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**Premio Sicurezza Imprese** Confindustria e Inail 2024

**Premio dei Premi** della Presidenza della Repubblica 2023

**Premio innovazione** per le imprese 2023

**Premio innovazione** SMAU 2023

**Venice Innovation Design 2023**

Innovation Awards 2022

Eccellenza dell'edilizia sostenibile 2022

Building Material Award, Athens Greece 2022

Impresa Vincente di Intesa Sanpaolo, per ESG e sostenibilità

Resilienza e Innovazione di BPER 2021

Leadership in impresa e sostenibilità di GBC Italia 2020

Premio Sviluppo Sostenibile @ Ecomondo Rimini 2018

Innovación de Producto y Material @ Rebuild Barcelona 2018

Archiproducts Design Awards 2016

Excelência da Reabilitação na construção @ Concreta Porto 2015

I-Novo Design Awards @ Batimat Paris 2015



# DIASEN COMMUNITY

We strongly believe in enlarging our community of partners around the world: architects, engineers, designers, developers, installers and promoters, who spread our philosophy of sustainability around the world through artistic and architectural events





# CORK: THE MOST CIRCULAR MATERIAL IN THE WORLD



Cork is the secret of the *Mare Nostrum*: a unique, renewable, recyclable, sustainable, circular, resistant and resilient material, known for its properties since thousands of years ago



On the contrary of what many people think, the harvesting does not cause any damage to the oak: once the bark is collected, **it can be harvested again after 10 years**, allowing the tree to grow stronger and healthier



# CORK: THE MOST CIRCULAR MATERIAL IN THE WORLD



**Much more than a simple bark:** cork owns an inner structure with a hundreds of **porosities** which ensure an excellent breathability and thermal behaviour; moreover, cork owns a special wax called **suberine** which protects it from humidity





# CORK: THE MOST CIRCULAR MATERIAL IN THE WORLD

Behind each one of our products there is a **world of craftsmanship**: we recycle the leftover of the production of cork stoppers for the wine bottles, we refine it and transform it into perfect grains of millimetric dimensions; such grains are then mixed with the other locally-sourced materials to finally get the finished products









# A MEDITERRANEAN COMPOSITION



Cork is mixed with a handful of other **locally-sourced materials** that all come from the Mediterranean countries:

- **Clay:** thermal and resistant, to improve the strength of the renders
- **Diatomaceous earth:** to improve the hygroscopic behaviour of the materials
- **Cellulose fibers:** to reinforce the materials
- **Pumice stone:** to improve the fire resistance
- **Natural hydraulic lime:** essential to improve the mechanical resistance, to bind together all the other components and to ensure an antibacterial property of the final product

*“These fragments of natural elements, pebbles of stone, fossils, wood, things martyred by the elements, collected off the edge of the sea, expressing physical laws, erosion, not only have particular talents, but also an extraordinary potential poetic.” (Le Corbusier)*



# LEARNING FROM THE ANCIENTS



Raw materials that all come from the Mediterranean waters and lands; this is how our solutions for a pure **Mediterranean Architecture** are born. Our philosophy contemplates a building in its entirety: quality products, functionality, living comfort and valuable aesthetics, travelling in the line of time thinking towards back





The **Roman Domus** is a reference as an **architectural project of living comfort** with the technologies and knowledge of the time, ensuring

- . **lightness of the structures**
- . **natural ventilation**
- . **natural lighting**
- . **jointless envelope and finishes**
- . **functionality and aesthetics of spaces**

The challenge of comfort requires solutions capable of combining technological content, uniqueness and respect for future generations: functionality, beauty, sustainability

*“Haec autem ita fieri debent, ut habeatur ratio **firmitatis, utilitatis, venustatis**” Vitruvio, De Architectura*



# BIOPHILIC DESIGN

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**Diathonite** renders are probably the best example of materials that meet the standards of **biophilic architecture and design**, for this reason it's easy to say that **Diathonite renders are biophilic renders** and they are like a new skin for a building that ensures a direct contact with nature

Is Molas Resort, Cagliari  
Fuksas Architects





**Biophilic architecture and design** promote the healthiness of spaces through the use of materials and shapes that recall ancient architecture and the contact with nature: **the warm and light colors of the earth, locally-sourced materials, rounded geometries, openings towards the greenery and the sea, comfortable surfaces and materials, natural paints**



# CORKPHILIA

**Philia** in Greek means *disinterested friendship*, made of complicity and common intentions, like the relationship between man and nature which is instinctively **biophilic**

**Diasen declined the biophilic relationship through the mediation of cork: hence CorkPhilia**

Our solutions create environments in which cork can be left exposed, in a multisensory connection between man and nature

Our **CorkPhilia** approach satisfies the needs of:

- . sustainability
- . regeneration
- . health
- . comfort
- . design





# DIATHONITE, BIOPHILIC RENDERS

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The **Diathonite** line of renders **perfectly represent the concept of total comfort of a building** by responding to the following aspects that a biophilic and comfortable building should have

**COLD AND HEAT INSULATION**

**ACOUSTIC ABSORPTION AND INSULATION**

**MOISTURE MANAGEMENT**

**FIRE PROTECTION**

**STRUCTURAL RESISTANCE**

**INDOOR AIR QUALITY**



# CERTIFIED SUSTAINABILITY



Green Building Council Italia



THE INTERNATIONAL EPD® SYSTEM





# DIATHONITE THERMACTIVE, A NEW CONCEPT OF COMFORT



**Diathonite Thermaactive** represents the perfect balance of properties that makes it the best material to improve the living comfort in buildings, **all year long**

<b>Thermal conductivity</b>	<b><math>\lambda = 0,035 \text{ W/mK}</math></b>
<b>Thermal resistance</b>	<b><math>R = 0,29 \text{ m}^2\text{KW}^*</math></b>
<b>Thermal diffusivity</b>	<b><math>\alpha = 0,15 \text{ mm}^2/\text{s}</math></b>
<b>Consumption</b>	<b><math>2,60 \text{ kg/m}^2^*</math></b>
<b>Density</b>	<b><math>250 \text{ kg/m}^3</math></b>
<b>Compression resistance</b>	<b><math>2,80 \text{ N/mm}^2</math></b>
<b>Fire reaction</b>	<b>Euroclass A1</b>
<b>Fire resistance</b>	<b>EI 120 **</b>
<b>Porosity</b>	<b>71%</b>
<b>Breathability</b>	<b><math>\mu = 3</math></b>

\* considering 10 mm of thickness

\*\* 25 mm of thickness over wooden substrate



# DIATHONITE EVOLUTION, 20 YEARS OF THERMAL INSULATION



**Diathonite Evolution** has been the first and revolutionary pre-mixed plaster with excellent thermal properties on the market, which was launched almost 20 years ago and which continues to be one of the most relevant solutions in architecture

<b>Thermal conductivity</b>	<b><math>\lambda = 0,045 \text{ W/mK}</math></b>
<b>Thermal resistance</b>	<b><math>R = 0,22 \text{ sqmKW} *</math></b>
<b>Thermal diffusivity</b>	<b><math>\alpha = 0,13 \text{ mm}^2/\text{s}</math></b>
<b>Consumption</b>	<b><math>3,70 \text{ kg/sqm} *</math></b>
<b>Density</b>	<b><math>360 \text{ kg/m}^3</math></b>
<b>Compression resistance</b>	<b><math>2,80 \text{ N/mm}^2</math></b>
<b>Fire reaction</b>	<b>Euroclass A1</b>
<b>Breathability</b>	<b><math>\mu = 4</math></b>

\* considering 10 mm of thickness



# TOTAL PROTECTION ALL YEAR LONG

Insulation material	Density $\rho$ [kg/m <sup>3</sup> ]	Specific heat $c$ [J/kgK]	Thermal Conductivity $\lambda$ [W/mK]	Thermal Diffusivity $\alpha$ [mm <sup>2</sup> /s]
Black cork	100	1560	0,040	0,260
Cellular concrete	300	1000	0,089	0,300
Wood	150	2000	0,040	0,133
Rock wool	100	1030	0,035	0,339
Hemp panel	50	1700	0,040	0,470
Fiberglass	80	1030	0,035	0,424
XPS	35	1450	0,035	0,689
Styrofoam panel	25	1200	0,036	1,200
Polyurethane foam	43	1400	0,028	0,465
<b>Diathonite Evolution</b>	<b>360</b>	<b>1000</b>	<b>0,045</b>	<b>0,125</b>
<b>Diathonite Thermactive</b>	<b>250</b>	<b>1000</b>	<b>0,035</b>	<b>0,150</b>

The **thermal diffusivity** is the parameter that allows the evaluation of the heat insulation capacity of a material

It is the relationship between the insulating capacity (thermal conductivity) and the thermal capacity (product of the density of the material and the specific heat)

$$\alpha = \frac{\lambda}{\rho \cdot c_p}$$

**The lower the thermal diffusivity value, the better the insulation against heat during the summer**



# GREEN COMFORT REPORT



What is Diatherm Who is for Features



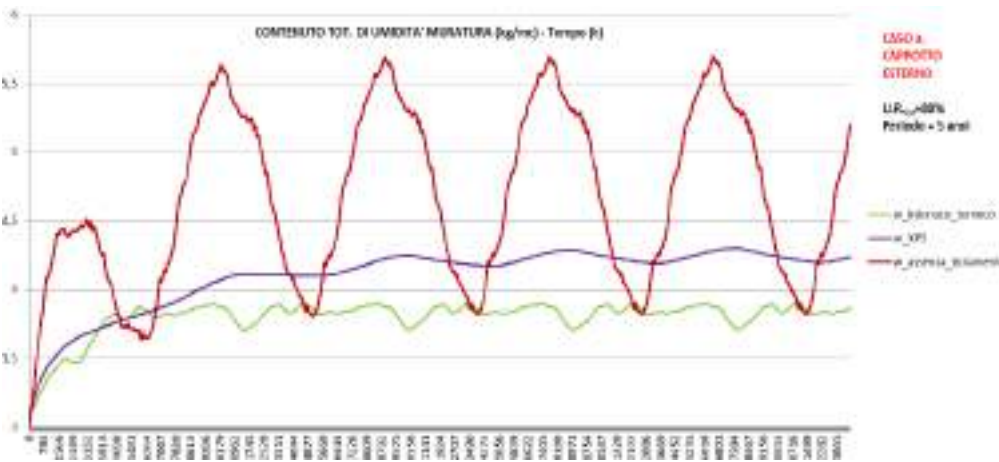
## Healthiness, safety and energy saving

Household well-being is the result of the harmonious balance among several elements such as healthiness, safety and energy saving. In this context, the microclimate plays a fundamental role, because it is precisely the perception of this microclimate that determines the real level of thermal comfort.



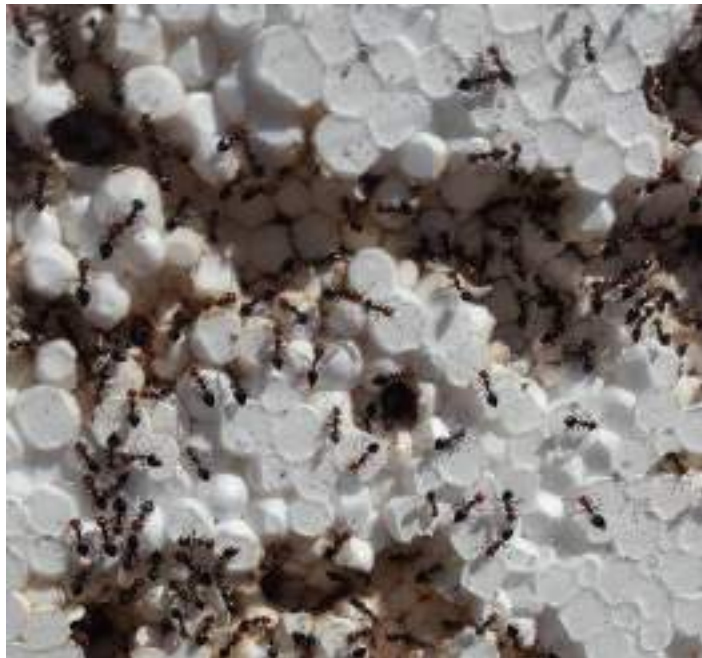
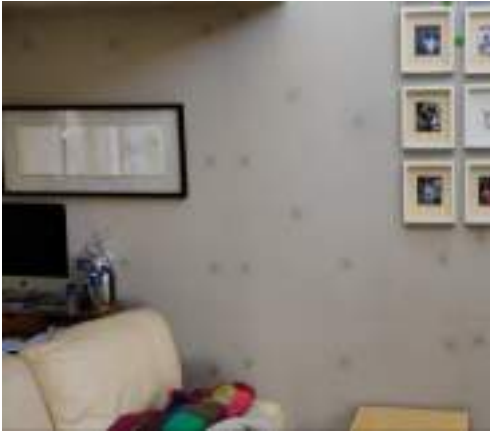
Diathernite data are uploaded into the online softwares **Diatherm®** and **WUFI®**; thanks to that, it is possible for us to issue a complete and detailed **report of comfort** with the figures of:

- **energy savings** every day of the year compared to the same wall/roof situation without any type of insulation and/or compared to other insulation systems;
- the **living comfort**, according to **moisture absorption and release, indoor air quality**, resistance and reaction to fire, mechanical resistance, etc.





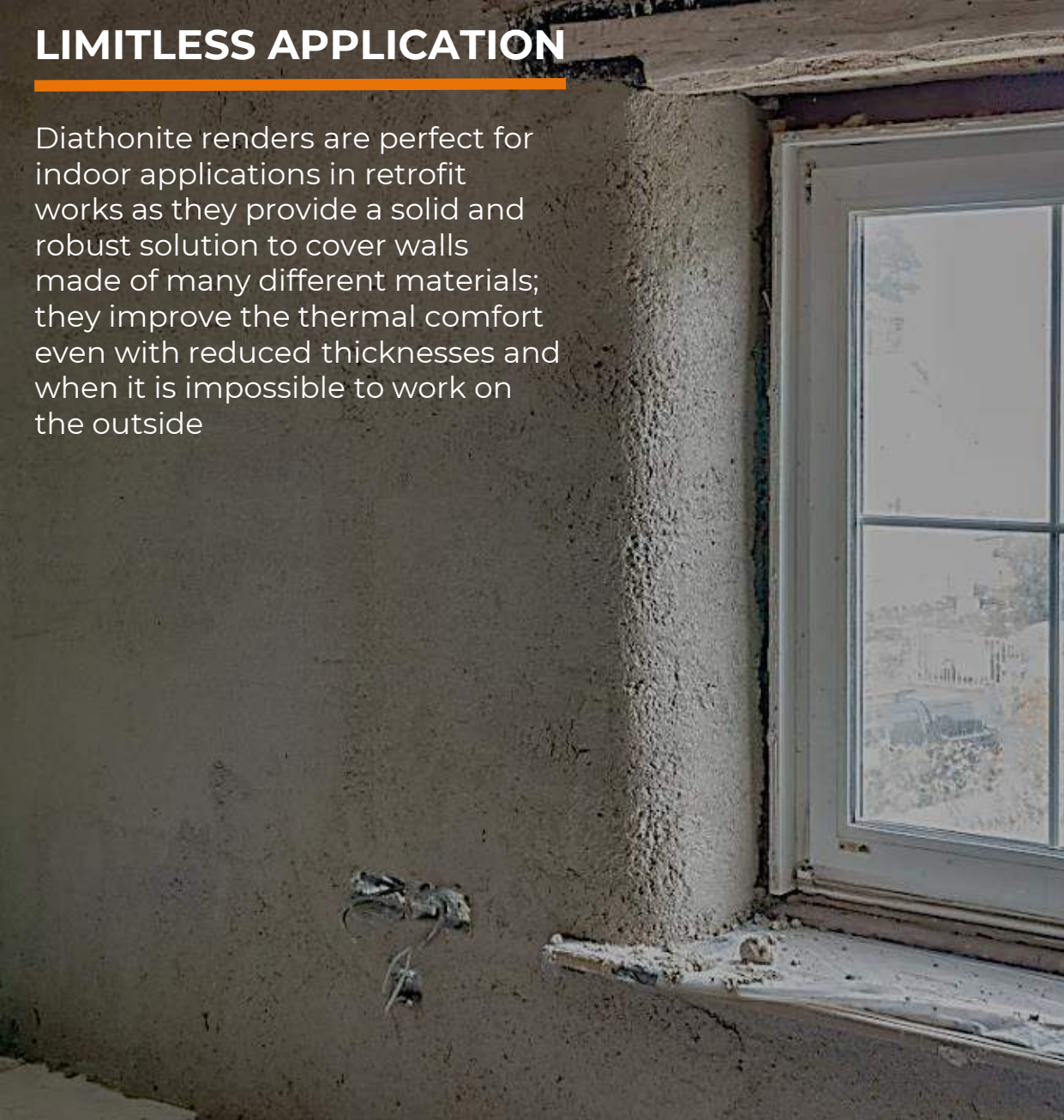
# WHY SHOULD YOU KEEP USING A TRADITIONAL SYSTEM?





# LIMITLESS APPLICATION

Diathonite renders are perfect for indoor applications in retrofit works as they provide a solid and robust solution to cover walls made of many different materials; they improve the thermal comfort even with reduced thicknesses and when it is impossible to work on the outside





# LIMITLESS APPLICATION



Diathonite is the ecological alternative to traditional EIFS, not only improving the energy efficiency in the Winter time, but also in the Summer. Moreover, the jointless layer of Diathonite provides a unique solution to avoid thermal bridges while ensuring a fireproof barrier



# LIMITLESS APPLICATION



Diathonite is the only solution which can be easily used to refurbish an **historic-listed building**, especially when there exist decorations

- Direct application over masonries
- Thanks to its low density, Diathonite does not overcharge the building
- Diathonite protects from moisture



# LIMITLESS APPLICATION

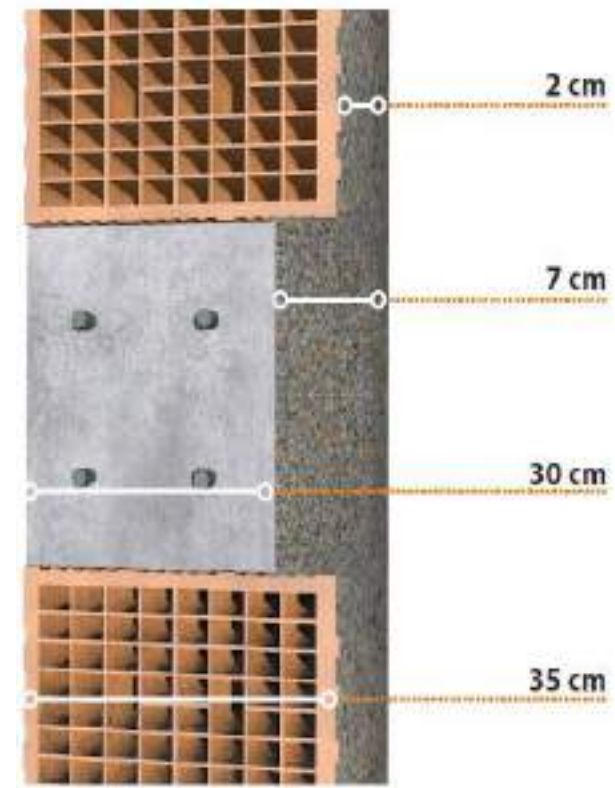


Diathonite perfectly meets the requirements of the different authorities for the **buildings conservation** around Europe, thanks to its composition and thanks to the way it can be applied and the decoration it is possible to create



## LIMITLESS APPLICATION

Compared to traditional EIFS, Diathonite provides many other benefits, becoming a much easier solution in terms of application, resolving any possible future problem of thermal bridge



- No primer or mechanical fixing needed over bricks
- No mesh up to 50 mm of thickness
- Final solid coating
- No more problems of thermal bridge



# LIMITLESS APPLICATION

Diathonite can then be finished in a variety of ways, leaving a rough texture or creating a completely smooth surface

Rubrics Building, Trinity College, Dublin  
**Pascall+Watson Architects & Carrig Conservation**



# LIMITLESS APPLICATION

Diathonite can then be finished in a variety of ways, leaving a rough texture or creating a completely smooth surface



Private condo, Lisbon  
**STC Arquitectos**



# LIMITLESS APPLICATION

Diathonite ensures a perfect covering of any type of surface and geometry, including rounded structures





# LIMITLESS APPLICATION

Diathonite renders are **robust** and **solid** enough to stand the weight of tiles and stones in order to create an insulation and fire-resistant substrate; this would be almost impossible with a traditional EIFS



Private condo, Lisbon  
STC Arquitectos



## LIMITLESS APPLICATION

Diathonite can also be polished and then left completely smooth and exposed with the visible grain of cork to create a unique aesthetic and biophilic effect

Public Library, Grândola  
**Pedro Matos Gameiro Arquitectos +  
Pedro Domingos Arquitectos**



# JOINTLESS APPLICATION

Among the many features of Diathonite, one of the most important ones is the possibility of having a jointless application done



Historic listed-building, Barcelona



# JOINTLESS APPLICATION

Among the many features of Diathonite, one of the most important ones is the possibility of having a jointless application done

Private villa, Quinta do Lago  
**Vasco Vieira Arquitectos**





# JOINTLESS APPLICATION

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Among the many features of Diathonite, one of the most important ones is the possibility of having a jointless application done



Private villa, Leiria  
**Aires Mateus**



# JOINTLESS APPLICATION

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Private villa, Leiria  
**Aires Mateus**

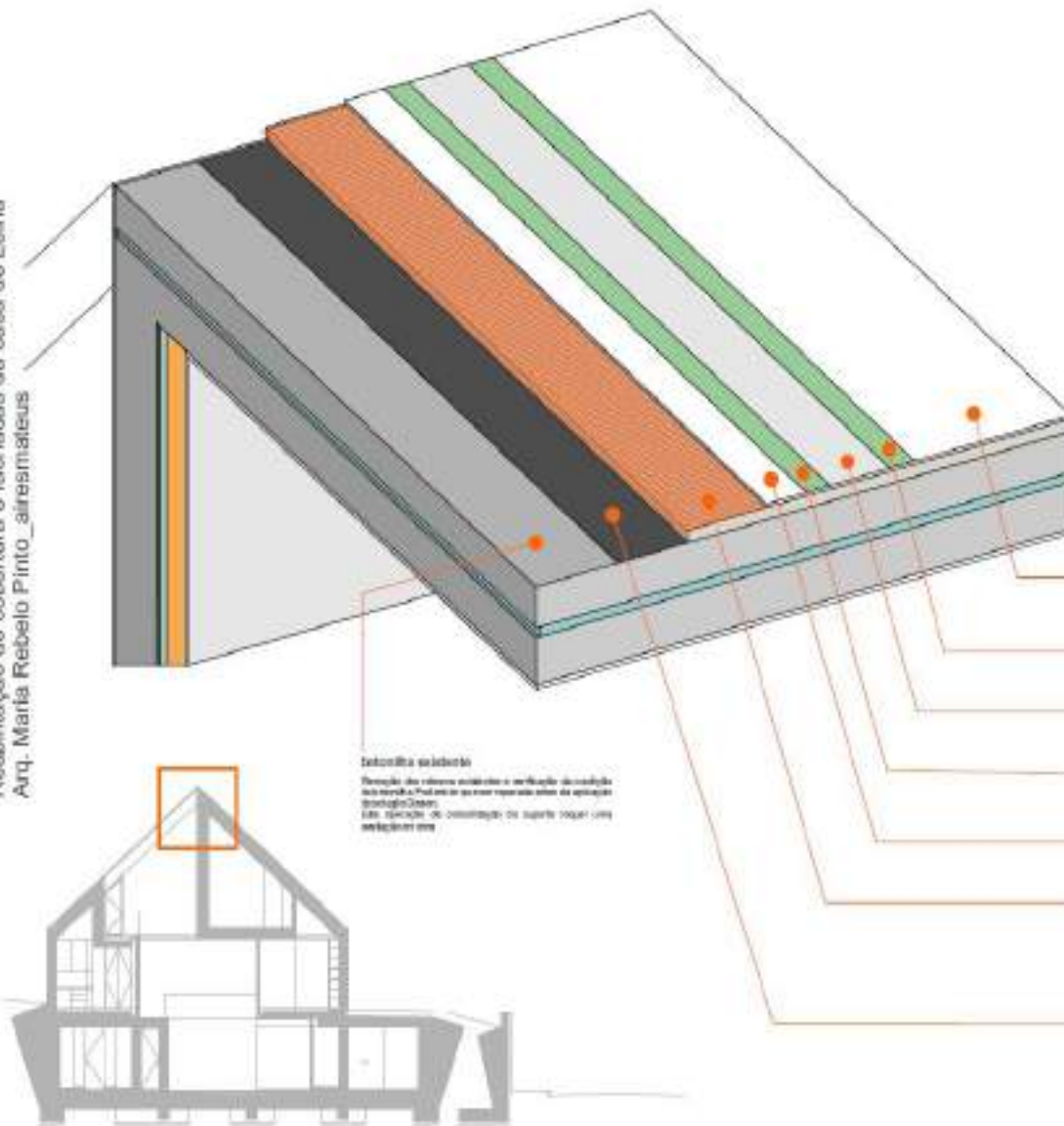


# JOINTLESS APPLICATION



Private villa, Leiria  
Aires Mateus

Reabilitação de cobertura e fachadas da casa de Leiria  
Arq. Maria Rebelo Pinto\_airesmateus



## Aplicação de revestimento térmico sobre coberturas

Aplicar primeiro sobre o concreto da LAJOTA, para sobre o betão de 10cm de espessura aplicar o isolamento térmico com o consumo de 2,7kg/m<sup>2</sup> de argam. com 2,5cm de espessura em coberturas, deixar este de 20mm na superfície da lajota até que esta esteja completamente encaixada na argamassa, apertar a rede para criar uma superfície lisa e desenvolvera onde será mais fácil aplicar o restante da pasta de fibrosa com o auxílio de uma superfície lisa, estacionada e fechando o joço do isolamento através uma superfície lisa, logo em seguida aplicar o isolamento de argamassa, deixar este 15 dias e proceder à aplicação do Argamassa HP com consumo de 4,2kg/m<sup>2</sup>. Seguir com a aplicação do primário para impermeabilização Grip-Primer, com o consumo de 0,2kg/m<sup>2</sup> e finalizar com o Acrylic, 2. por se ser feita em três demãos com o consumo de 2kg/m<sup>2</sup>. Finalizar com o primário Grip-Primer com o consumo de 0,2kg/m<sup>2</sup> e sobre com duas demãos de pintura com Acrylic protect Coating em duas demãos na cor branca, como sugestão de cor, branco 2. Nas zonas de canto ou colunas usar o Acrylic joint roll para vedar e aumentar a resistência do revestimento entre demãos.

### acrylic protect coating (duas demãos)

Revestimento térmico sobre o concreto e isolamento térmico aplicado anteriormente. É usado para vedar e selar as juntas entre as lajas e paredes e para impermeabilizar as superfícies. Deve ser aplicado em duas demãos com o consumo de 2kg/m<sup>2</sup>. Finalizar com o primário Grip-Primer com o consumo de 0,2kg/m<sup>2</sup> e sobre com duas demãos de pintura com Acrylic protect Coating em duas demãos na cor branca, como sugestão de cor, branco 2.

### grip-primer

Primer de alta aderência aplicado sobre o concreto e o isolamento térmico. Deve ser aplicado em duas demãos com o consumo de 0,2kg/m<sup>2</sup>. Finalizar com o primário Grip-Primer com o consumo de 0,2kg/m<sup>2</sup> e sobre com duas demãos de pintura com Acrylic protect Coating em duas demãos na cor branca, como sugestão de cor, branco 2.

### acrylic X pro (duas demãos)

Revestimento térmico aplicado sobre o concreto e o isolamento térmico. Deve ser aplicado em duas demãos com o consumo de 2kg/m<sup>2</sup>. Finalizar com o primário Grip-Primer com o consumo de 0,2kg/m<sup>2</sup> e sobre com duas demãos de pintura com Acrylic protect Coating em duas demãos na cor branca, como sugestão de cor, branco 2.

### grip-primer

Primer de alta aderência aplicado sobre o concreto e o isolamento térmico. Deve ser aplicado em duas demãos com o consumo de 0,2kg/m<sup>2</sup>. Finalizar com o primário Grip-Primer com o consumo de 0,2kg/m<sup>2</sup> e sobre com duas demãos de pintura com Acrylic protect Coating em duas demãos na cor branca, como sugestão de cor, branco 2.

### argamassa HP

Argamassa de alta aderência aplicada sobre o concreto e o isolamento térmico. Deve ser aplicada em duas demãos com o consumo de 4,2kg/m<sup>2</sup>. Finalizar com o primário Grip-Primer com o consumo de 0,2kg/m<sup>2</sup> e sobre com duas demãos de pintura com Acrylic protect Coating em duas demãos na cor branca, como sugestão de cor, branco 2.

### isolamento térmico

Isolamento térmico aplicado sobre o concreto e o isolamento térmico. Deve ser aplicado em duas demãos com o consumo de 2,7kg/m<sup>2</sup>. Finalizar com o primário Grip-Primer com o consumo de 0,2kg/m<sup>2</sup> e sobre com duas demãos de pintura com Acrylic protect Coating em duas demãos na cor branca, como sugestão de cor, branco 2.

### laje de polímero fibra de vidro 140g

Laje de polímero fibra de vidro aplicada sobre o concreto e o isolamento térmico. Deve ser aplicada em duas demãos com o consumo de 2,7kg/m<sup>2</sup>. Finalizar com o primário Grip-Primer com o consumo de 0,2kg/m<sup>2</sup> e sobre com duas demãos de pintura com Acrylic protect Coating em duas demãos na cor branca, como sugestão de cor, branco 2.

### betão

Betão aplicado sobre o concreto e o isolamento térmico. Deve ser aplicado em duas demãos com o consumo de 10cm de espessura. Finalizar com o primário Grip-Primer com o consumo de 0,2kg/m<sup>2</sup> e sobre com duas demãos de pintura com Acrylic protect Coating em duas demãos na cor branca, como sugestão de cor, branco 2.



# SMOOTHERS

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**Argacem Coloured** is a natural-based smoother for exteriors, it is water repellent and very permeable, with a texture of 1.2 mm that can be applied directly onto plasters :

**Diathonite Thermactive**

**Diathonite Evolution**

**Diathonite Sismactive**

**Diathonite Deumix<sup>+</sup>**



# SMOOTHERS

**Argatherm** is a lime-based smoother that has thermal properties and is very permeable, used to finish systems made up of plasters:

**Diathonite Thermactive**  
**Diathonite Evolution**  
**Diathonite Sismactive**  
**Diathonite Deumix<sup>+</sup>**

**Texture: 0-0,6 mm**

**$\lambda = 0,128 \text{ W/mK}$**



# SMOOTHERS

**Argacem Ultrafine** is a completely smooth plaster for both interior and exterior applications, and needs to be applied on a base made with Argatherm



# DIATHONITE ACOUSTIX<sup>+</sup>, THE UNIQUE COMBINATION OF CORK AND AIR



The combination between cork, with its the natural acoustic properties, and the acoustic barrier created by the static air in the cells and cavities turns **Diathonite Acoustix<sup>+</sup>** into the most versatile solution **to improve the acoustic comfort** of a building

**Noise reduction coefficient**

**Acoustic absorption [600 – 1500 Hz]**

**Consumption**

**Density**

**Reaction to fire**

**Breathability**

**NRC = 0.75 \***

**$\alpha > 80\%$  \***

**4,00 kg/sqm \*\***

**400 kg/m<sup>3</sup>**

**Euroclass A1**

**$\mu = 4$**

\* considering 30 mm of thickness

\*\* considering 10 mm of thickness



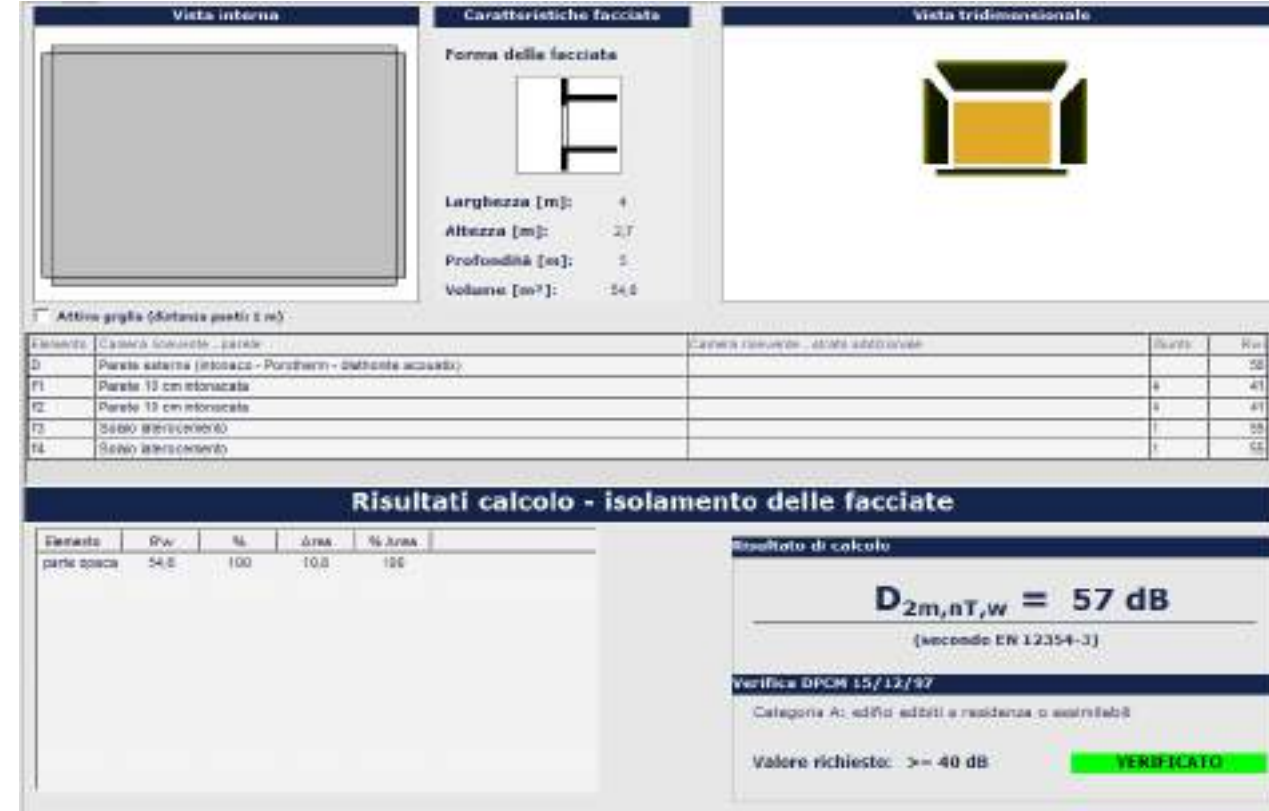
# DIATHONITE ACOUSTIX<sup>+</sup>, THE UNIQUE COMBINATION OF CORK AND AIR

Increase in the **Sound Insulation Rating Index ( $R_w$ )** compared to traditional plaster

3

dB

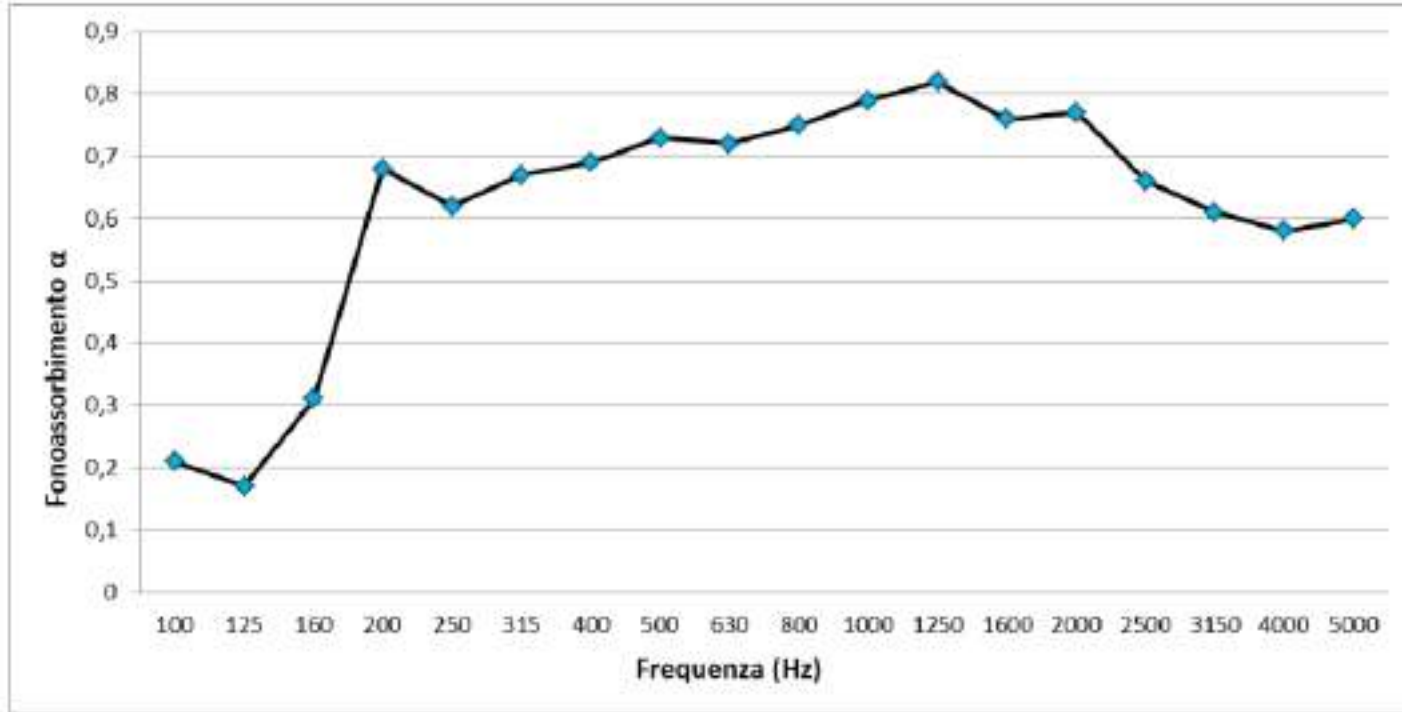
UNI EN ISO 10140-2  
UNI EN ISO 717-1



The higher the acoustic insulation value, the better the barrier the material can provide against noise and a difference of **3 dB** is an impressive value in terms of acoustic insulation



# DIATHONITE ACOUSTIX<sup>+</sup>, THE UNIQUE COMBINATION OF CORK AND AIR



**Diathonite Acoustix<sup>+</sup>** performs best when exposed to the frequencies of the human voice, in the range from 400 Hz to 5000 Hz

It is easy to see how its sound absorption property increases until reaching an alpha value of 0.82 at 1250 Hz

This means that at this frequency, the 30 mm of Diathonite Acoustix<sup>+</sup> will absorb 82% of the sound waves, and the remaining 18% will be transmitted and reflected, guaranteeing a high level of improvement in acoustic comfort

Frequency (Hz)	100	125	160	200	250	315	400	500	630	800	1000	1250
$\alpha_s$	0,21	0,17	0,31	0,68	0,62	0,67	0,69	0,73	0,72	0,75	0,79	0,82
$\alpha_p$	0,25			0,65			0,70			0,80		

Frequency (Hz)	1600	2000	2500	3150	4000	5000
$\alpha_s$	0,76	0,77	0,66	0,61	0,58	0,60
$\alpha_p$	0,75			0,60		



# DIATHONITE ACOUSTIX<sup>+</sup>, THE UNIQUE COMBINATION OF CORK AND AIR

The sound absorption property and noise reduction coefficient of Diathonite Acoustix<sup>+</sup> may vary according to the type of finish given to the material; in order to reach the highest value, **it is recommended to leave the surface of the plaster porous-open and rough**

**DIATHONITE ACOUSTIX<sup>+</sup>**  
WITHOUT ANY OTHER COATING

**NRC 0.75** (30 mm of thickness)





# DIATHONITE ACOUSTIX<sup>+</sup>, THE UNIQUE COMBINATION OF CORK AND AIR

The sound absorption property and noise reduction coefficient of Diathonite Acoustix<sup>+</sup> may vary according to the type of finish given to the material; it is possible to over-paint the gray-coloured surface of Diathonite with a natural, breathable and lime-based paint which slightly lowers the final NRC value

**DIATHONITE ACOUSTIX<sup>+</sup>**  
PAINTED WITH LIMEPAINT

**NRC 0.70** (30 mm of thickness)





# DIATHONITE ACOUSTIX<sup>+</sup>, THE UNIQUE COMBINATION OF CORK AND AIR

The sound absorption property and noise reduction coefficient of Diathonite Acoustix<sup>+</sup> may vary according to the type of finish given to the material; it is possible to get a smoother finish by covering Diathonite with the lime-based skim coat smoother Argatherm Acoustix, which gives a fine-textured finish and

**DIATHONITE ACOUSTIX<sup>+</sup>**  
WITH SKIM-COAT SMOOTHER  
ARGATHERM ACOUSTIX

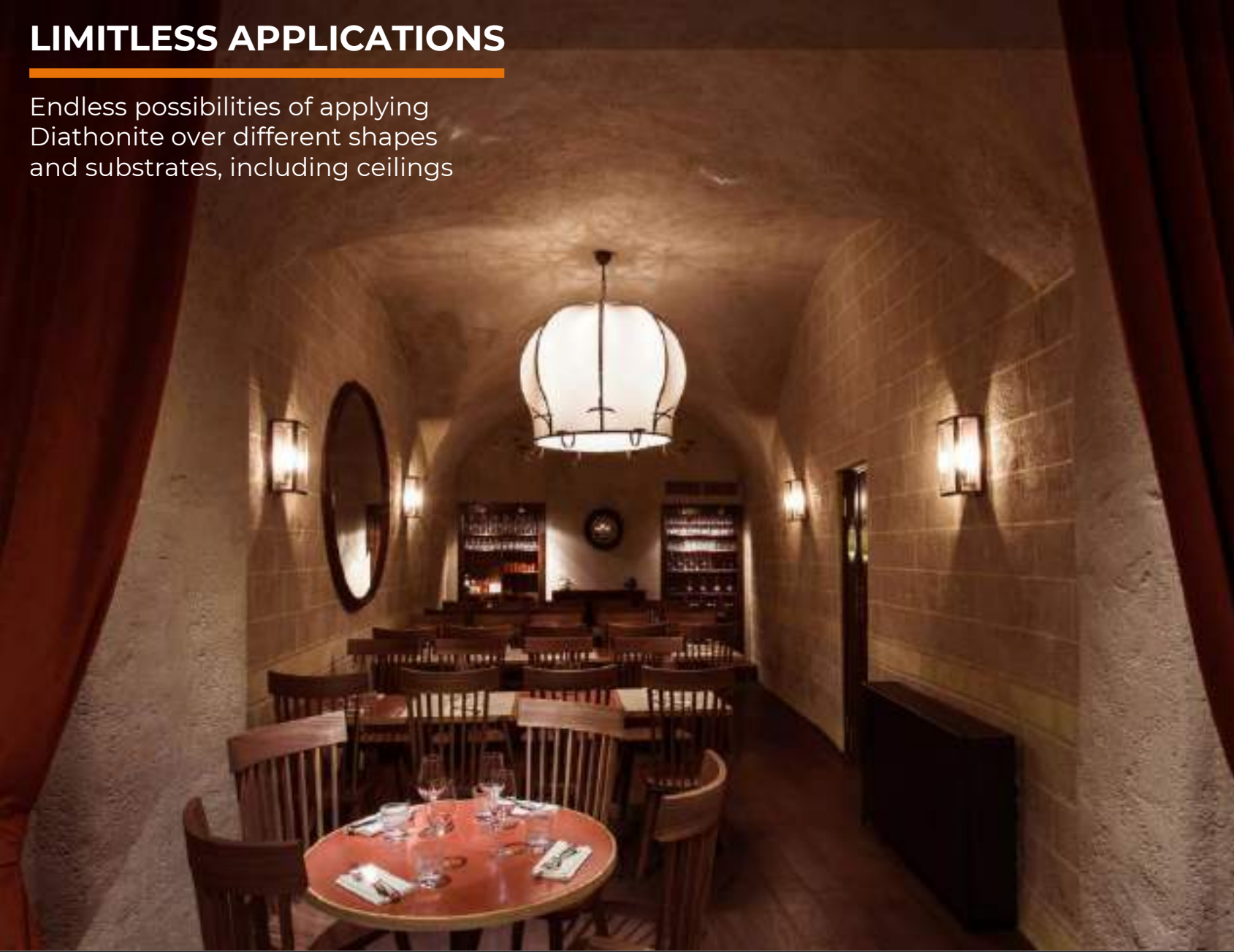
**NRC 0.65** (30 mm of thickness of Diathonite  
+ 3 mm of thickness of Argatherm Acoustix)





# LIMITLESS APPLICATIONS

Endless possibilities of applying Diathonite over different shapes and substrates, including ceilings



Cucina Torcicoda Restaurant, Florence  
**Luigi Fragola**



# LIMITLESS APPLICATION



Cucinelli Theater, Perugia  
Massimo De Vico Fallani



# LIMITLESS APPLICATION



Castilla Termal Hotel, Guadalajara  
ARQOH Arquitectos



# LIMITLESS APPLICATION

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The cellulose fibers inside the composition of Diathonite allows a safe and jointless application onto ceilings as well, with a great stability and adhesion to the substrate



Campo das Cebolas, Lisbon  
Carrilho da Graça Arquitetos



# DIATHONITE THERMOSTEP.047, THE LIGHTEST THERMAL SCREED



**Diathonite Thermostep.047** is the lightest thermal and acoustic screed on the market. It can be easily used with a minimum thickness of just 1.20 inch and it is perfect to renovate old floors and to save costs in the building of new ones

**Thermal Conductivity**

**$\lambda = 0,047$  W/mK**

**Mechanical resistance**

**M5**

**Consumption**

**3,90 kg/sqm \***

**Density**

**380 kg/m<sup>3</sup>**

**Fire reaction**

**Euroclass A1**

**Breathability**

**$\mu = 4$**



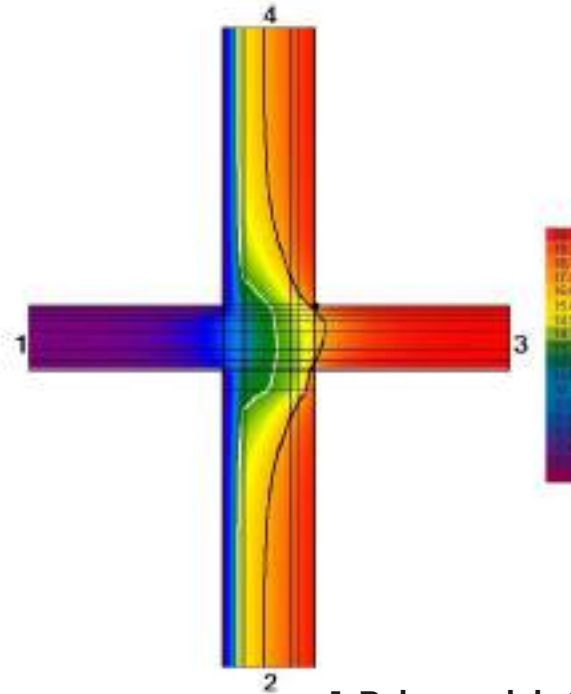
\* considering 10 mm of thickness



# DIATHONITE THERMOSTEP.047, THE LIGHTEST THERMAL SCREED

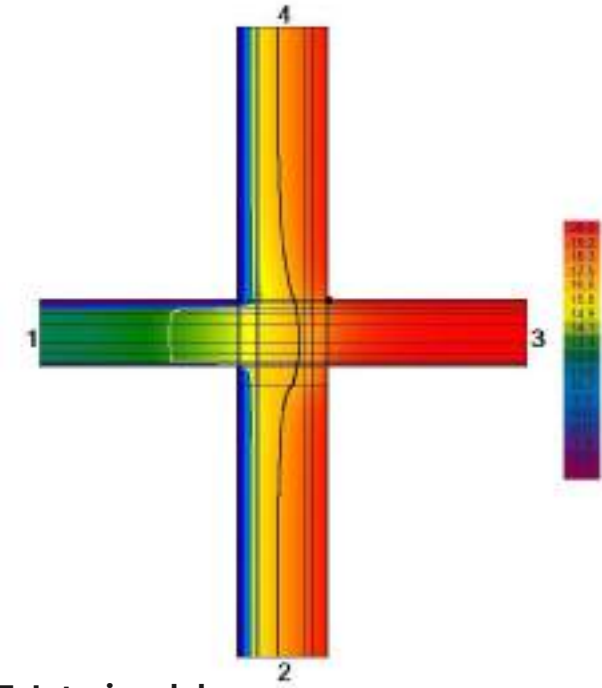


1. Roofs
2. Attics
3. Balconies and terraces
4. Floor slabs
5. First floors
6. Underground floors



1. Balcony slab 4. Exterior wall 3. Interior slab

A traditional screed solution on the balcony slab creates a thermal bridge

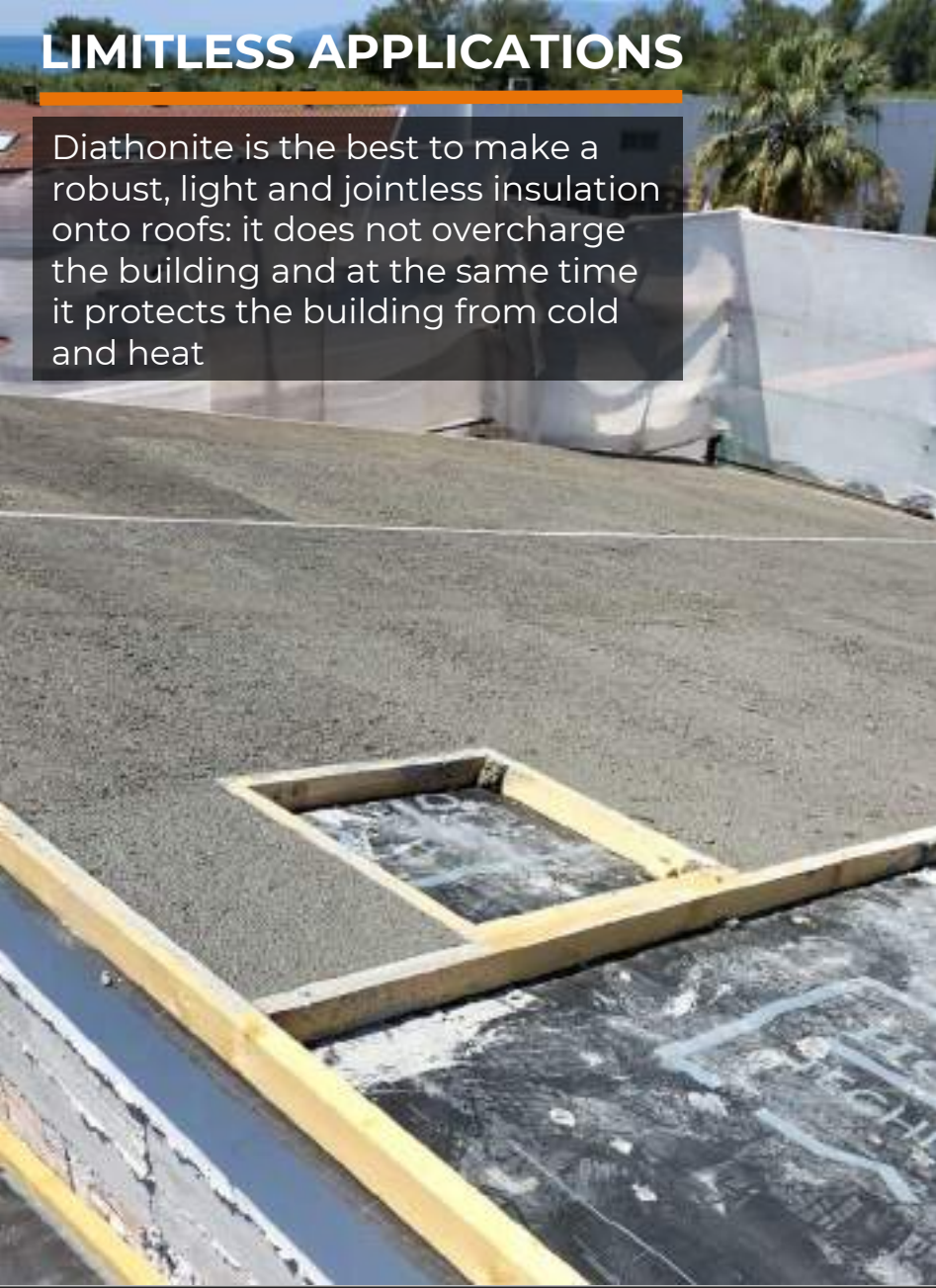


**Diathonite Thermostep.047** is able to resolve the problem of the thermal bridge, creating a specific barrier against cold and heat to protect the building from mould and condensation



# LIMITLESS APPLICATIONS

Diathonite is the best to make a robust, light and jointless insulation onto roofs: it does not overcharge the building and at the same time it protects the building from cold and heat





# LIMITLESS APPLICATIONS

Diathonite is the best to make a robust, light and jointless insulation onto **floors**: it is suitable to be used as a light-weight insulation **screed**, with a reduced density but ensuring at the same time the correct compression and mechanical resistances



ERPI, Castro Marim  
**Ternullomelo Architects**





# LIMITLESS APPLICATIONS



ERPI, Castro Marim  
Ternullomelo Architects



# LIMITLESS APPLICATIONS



NIU Houses, Valencia  
Fran Silvestre





# DECORK ALFAREFLEX, THE WHITE CORK PAINT FOR SOLAR REFLECTION



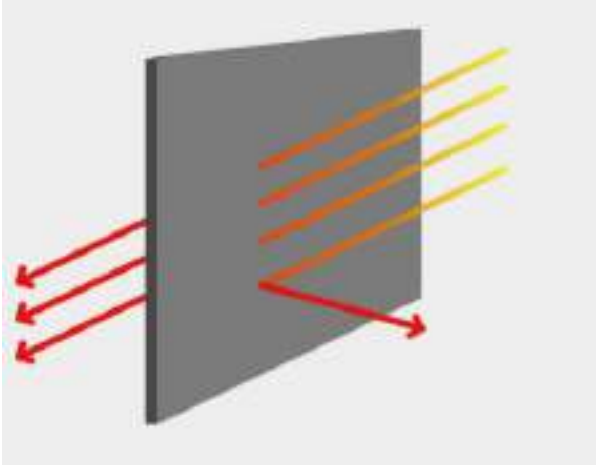
**Decork Alfareflex** responds to a growing demand in the architecture and construction industry: **to improve living comfort during the summer**, as environmental overheating represents a serious global threat that spreads everywhere

**Decork Alfareflex** is enriched with glass and ceramic spheres that can reflect almost 100% of the sun's rays, reducing heat input and therefore electricity consumption for air conditioning

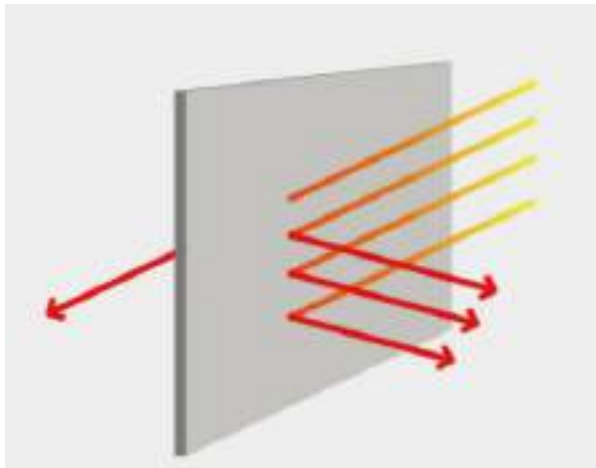




# DECORK ALFAREFLEX, THE WHITE CORK PAINT FOR SOLAR REFLECTION



A traditional paint with a high level of absorption will not make any barrier against UV rays, helping to increase the interior temperature



**Decork Alfareflex** reflects almost 100% of the sun's rays, meaning the interior temperature will be visibly more moderate and lower compared to a building without reflective paint





# DECORK ALFAREFLEX, THE WHITE CORK PAINT FOR SOLAR REFLECTION

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Bairro FAP, Beja



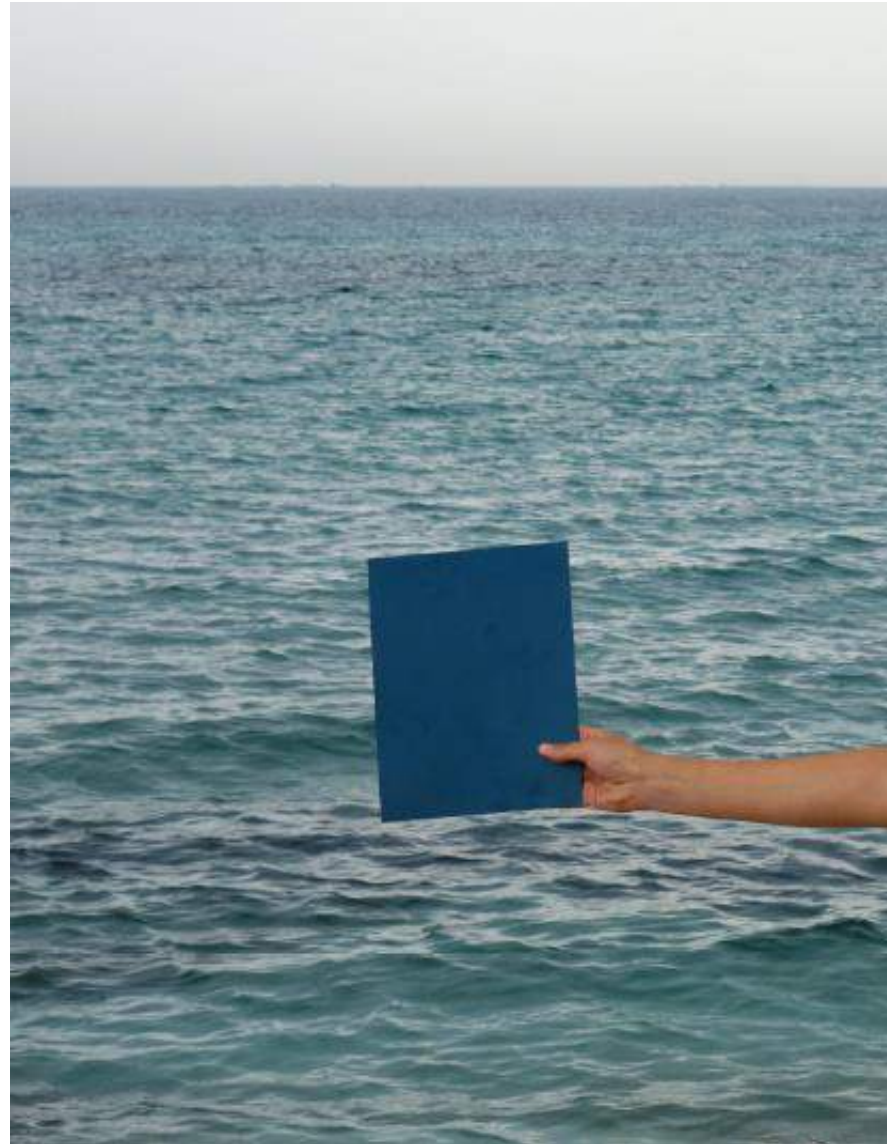
# DECORK MEDITERRANEO: A JOURNEY THROUGH THE COLOURS OF THE MEDITERRANEAN

**Decork Mediterraneo** was born from the ancient *cocciopesto* paints, combining **clay** with another pure Mediterranean raw material: **cork**

The inspiration for the colours comes from the Mediterranean nature and from the typical colours of the towns and villages of the Mare Nostrum

The result is a unique **biophilic paint**, with a fine texture, which can provide several features and benefits

- . **Great thermal behaviour**
- . **The surface where it is applied does not suffer from overheating**
- . **Flexibility 195%**
- . **Repellency to rain water**
- . **Breathability  $\mu = 7$**
- . **Increase of the indoor wall temperature**





# DECORK MEDITERRANEO: A JOURNEY THROUGH THE COLOURS OF THE MEDITERRANEAN

**Decork Mediterraneo** contains fine, smooth **cork** powder from other production cycles, making it a **100% circular and recycled material**

**Clay** is the second ingredient, which gives the paint a high level of resistance and permeability

**The natural wax** unites cork and clay, ensuring a high level of flexibility and total water repellency



# DECORK MEDITERRANEO: A JOURNEY THROUGH THE COLOURS OF THE MEDITERRANEAN

**Decork Mediterraneo** is suitable for external applications, thanks to its water repellency provided by the special wax contained in the material and the natural flexibility of cork





# DECORK MEDITERRANEO: A JOURNEY THROUGH THE COLOURS OF THE MEDITERRANEAN

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# DECORK MEDITERRANEO: A JOURNEY THROUGH THE COLOURS OF THE MEDITERRANEAN

**Decork Mediterraneo** is suitable for applications on walls and floors of internal buildings, to create a unique natural aesthetic effect





# DECORK MEDITERRANEO: A JOURNEY THROUGH THE COLOURS OF THE MEDITERRANEAN





# DECORK MEDITERRANEO: A JOURNEY THROUGH THE COLOURS OF THE MEDITERRANEAN

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It is possible to combine different colors and application forms to create effects and textures





# DECORK MEDITERRANEO: A JOURNEY THROUGH THE COLOURS OF THE MEDITERRANEAN

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**Decork Mediterraneo** provides a unique, flexible and jointless system also for floors and walls in damp areas, thanks to the perfect combination of paint with a specific waterproofing layer and a transparent, water-based final protection



# DECORK MEDITERRANEO: A JOURNEY THROUGH THE COLOURS OF THE MEDITERRANEAN





# DECORK MEDITERRANEO: A JOURNEY THROUGH THE COLOURS OF THE MEDITERRANEAN

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The new frontier in the world of design is to use innovative and sustainable products to cover furniture, to have unique and biophilic objects; **Decork Mediterraneo** is the perfect paint for this purpose

OPINION CIATTI®



# DECORK MEDITERRANEO: A JOURNEY THROUGH THE COLOURS OF THE MEDITERRANEAN

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The new frontier in the world of design is to use innovative and sustainable products to cover furniture, to have unique and biophilic objects; **Decork Mediterraneo** is the perfect paint for this purpose





« Architecture is a matter of art, something that generates an emotion »

**Le Corbusier**



Data Center, Covilhã  
Carrilho da Graça Arquitetos





Data Center, Covilhã  
Carrilho da Graça Arquitetos





Waterfront complex, Belgrade  
**Masinoprojekt**





Waterfront complex, Belgrade  
**Masinoprojekt**





Cruise Terminal, Lisbon  
Carrilho da Graça Arquitetos





Cruise Terminal, Lisbon  
Carrilho da Graça Arquitetos





Cruise Terminal, Lisbon  
**Carrilho da Graça Arquitetos**





Cruise Terminal, Lisbon  
**Carrilho da Graça Arquitetos**





Condo, Manresa  
**Lacol**





Conference hall, Assisi  
**ATI Project**





Conference hall, Assisi  
ATI Project





Esment headquarters, Palma de Mallorca  
**Alfons Romero**









Esment headquarters, Palma de Mallorca  
**Alfons Romero**





24 metro stations, Paris  
**RATP Technical Department**



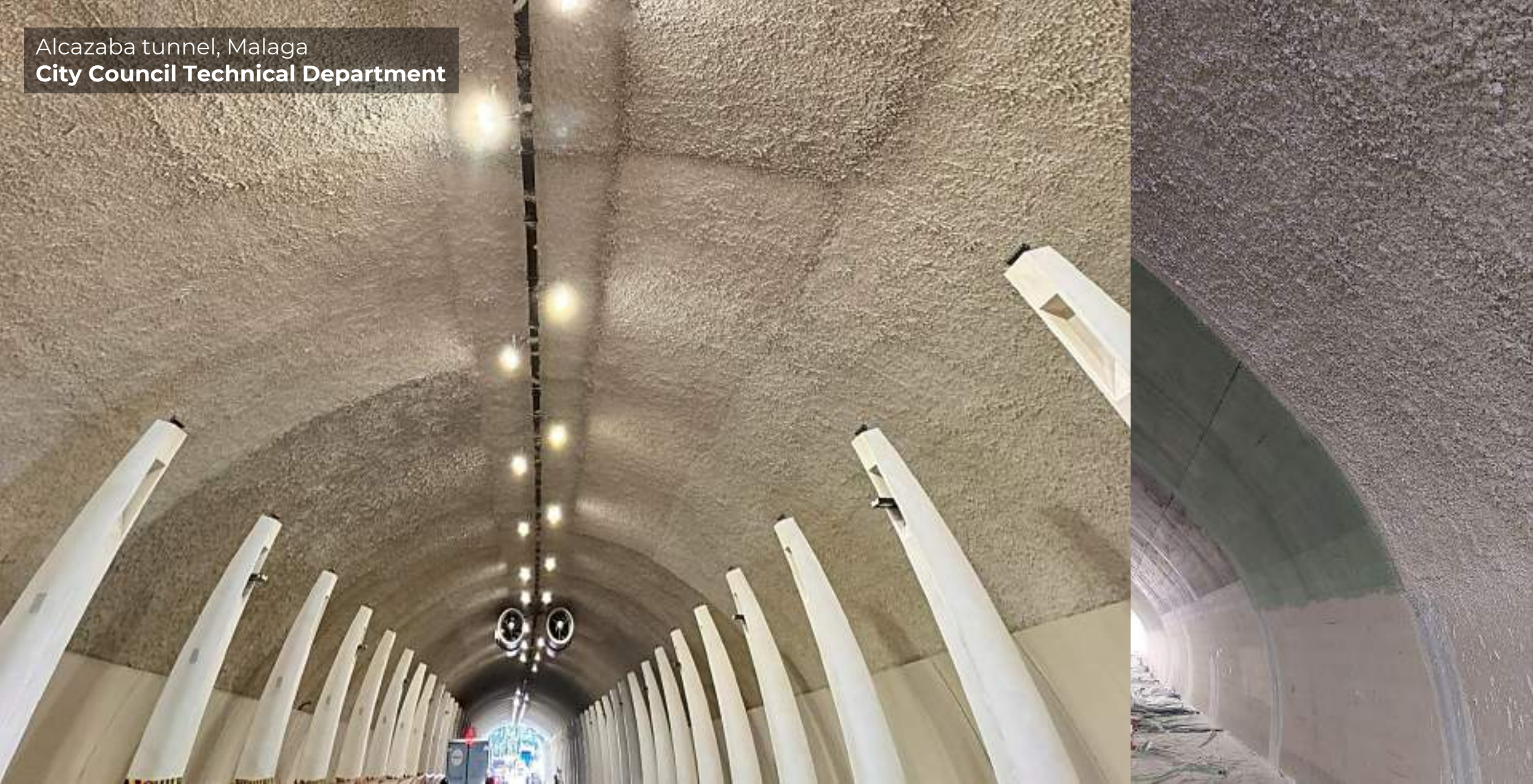


Alcazaba tunnel, Malaga  
City Council Technical Department





Alcazaba tunnel, Malaga  
City Council Technical Department





Claranet headquarters, Lisbon  
Promontorio





Private passivhaus villa, Ibiza  
**Alvaro Martinez-Gil**





Private passivhaus villa, Ibiza  
**Alvaro Martinez-Gil**





Private passivhaus villa, Ibiza  
**Alvaro Martinez-Gil**





54 nzeb social housing apartments, Inca  
**Alventosa Morell + Joan Fortuny**





54 nzeb social housing apartments, Inca  
**Alventosa Morell + Joan Fortuny**





Monastery of Jesus, Setúbal  
Carrilho da Graça Arquitetos





Monastery of Jesus, Setúbal  
Carrilho da Graça Arquitetos





Monastery of Jesus, Setúbal  
Carrilho da Graça Arquitetos





Iberian Museum of Art and Archeology, Abrantes  
**Carrilho da Graça Arquitetos**





Iberian Museum of Art and Archeology, Abrantes  
**Carrilho da Graça Arquitetos**





Historic-listed building, Rome  
**Andrea Vittorini**





Ombria Resort, Loulé  
Promontorio





Ombria Resort, Loulé  
**Promontorio**





Ombria Resort, Loulé  
Promontorio





Brú na Bóinne, Slane  
Irish Office of Public Works





Brú na Bóinne, Slane  
Irish Office of Public Works





Rubrics building, Trinity College, Dublin  
**Pascall + Watston Architects & Carrig Conservation**





Private house, Scotland  
**Simpson & Brown**





Private house, Scotland  
**Simpson & Brown**





Cameron House, Loch Lomond  
3D Reid





Cameron House, Loch Lomond  
3D Reid







**Francesco Marcelli**  
Global Development Manager

