



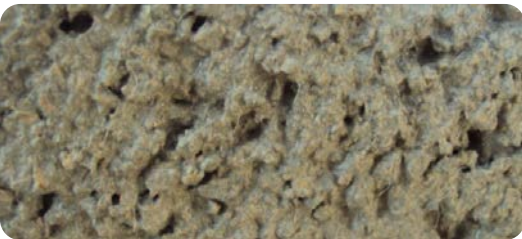
COMPANY PRESENTATION



www.diasen.com



DIAthonite



GREEN

DIFFERENT

SMART

SENtinum



Eco-friendly materials and systems

Different from traditional ways of building

Smart because our solutions help to improve the living confort in an easy way



A little bit of our history...

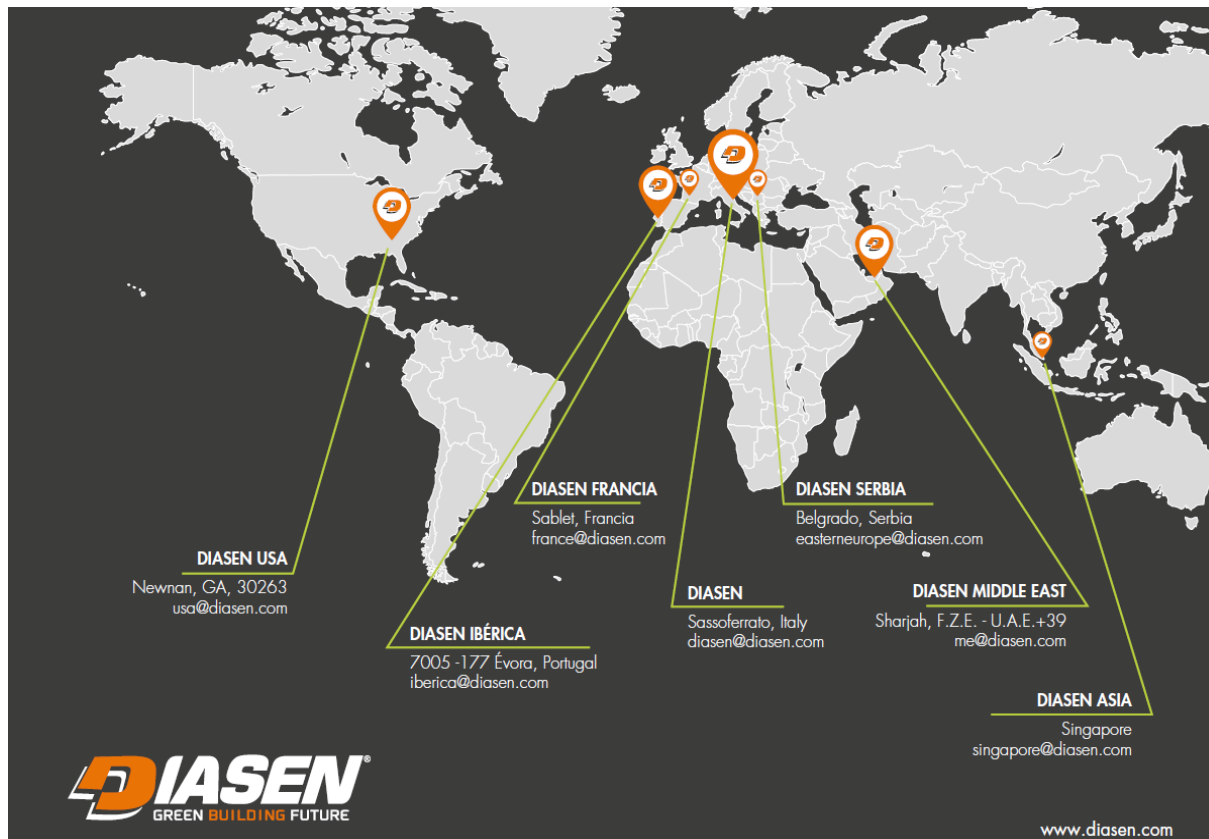
Almost 40 years ago, Diasen was not existing yet: its name was **ITALSOLVENTI**, and after several researches and investigations, in **1985** Mr. Floriano Mingarelli, the founder of the company, had the intuition and idea that the market of building would have changed in the upcoming years.



THAT WAS HOW **DIATHONITE** WAS BORN: in that same year, he developed a mixture of **cork** and **diathomeic powders** to insulate buildings: just as our ancient people had been doing for centuries in the past, when they were building houses with cork granulates to protect them from cold and heat.

A little bit of our history...

- **1999: DIASEN** was officially established in the Sassoferrato Headquarter
- **2000: DIASEN** finally started its operations through the Italian market
- **2010: new foreign markets** were opened and new territories started to be explored
- **2014: DIASEN** opens three delegations: DIASEN IBERICA, DIASEN ME, DIASEN USA
- **2020: 20th anniversary** and keep on growing...



A little bit of our history...



1999 is also the year when we launched on the market the very first premixed thermal plaster: **CORK + NATURAL HYDRAULIC LIME**: the result was **DIATHONITE PREMIX**, a unique mixture with a certified Lambda of **0,083 W/mK**



2006 the evolution continues: **DIATHONITE EVOLUTION** is the first premixed thermal plaster with a certified Lambda of *just* **0,045 W/mK** – And nowadays, after 13 years, it is still one of our best selling products!

Diathonite 2019



Thanks to the continuous and constant work of our **Research & Development Department**, in **2017** we have launched **2** brand new innovative materials:

DIATHONITE THERMACTIVE.037 and **DIATHONITE DEUMIX+**



Diasen 2019



- University of Perugia (Italy)
- Laboratorio Nacional Engenharia Civil (Portugal)
- University of Ancona (Italy)
- Centre Scientifique et Technique du Bâtiment (France)
- University of Saint Petersburg (Russia)

Diasen 2019



- *Diathonite Thermactive.037*: "BEST INNOVATION OF MATERIAL" @ Advanced Architecture Awards, Barcelona, Spain, 2018
- *Diathonite Evolution*: "BEST ENERGY EFFICIENT PRODUCT" @ SEAI_ie EnergyShow17, Dublin, Ireland, 2017
- "BEST OF CATEGORY" @ Archiproducts Design Awards, 2016
- "BEST OF ECO" @ i-Novo Awards, Batimat Exhibition, Paris, France, 2015
- "PRÉMIO EXCELENCIA" @ Concreta Exhibition, Porto, Portugal, 2015
 - "GOOD ENERGY AWARD", Italy, 2012
- Diasen listed among the 100 best *green* companies in the whole world

Diasen around the world



“Data Center Portugal Telecom”, Covilhã, Portugal, 2013

Diasen around the world



Rhodes Airport, Greece, 2018

Diasen around the world



Belgrade Waterfront, Serbia, 2018



Diasen around the world



Lisbon Cruise Terminal, Portugal, 2016



DIATHONITE PRESENTATION



www.diasen.com

CORK

Diasen's primary raw material and, at the same time, Diathonite's core. It provides unique features that will guarantee efficient applications as well as excellent results.

- ✓ IT IS NOT AFFECTED BY HUMIDITY
- ✓ IT REDUCES NOISE PROPAGATION
- ✓ IT IS RESISTANT TO FIRE
- ✓ IT IS RESISTANT TO INSECTS ATTACKS
- ✓ IT AVOIDS DUST SEDIMENTS WHICH ARE THE CAUSE OF ALLERGIES

The first harvest happens after 25 years, while the following ones happen each 9 years.

The tree is not cut, so there is absolutely **no damage to nature.**



CORK: the magic secret of the Mediterranean



These days, just like in the past, the **harvest** happens without cutting the tree



After harvesting, cork is ready to be cleaned and worked

CORK: the magic secret of the Mediterranean



CORK: the magic secret of the Mediterranean

Diasen recycles cork from different production activities, cleans it and transforms it into the main raw material for its materials

DIASEN[®]
GREEN BUILDING FUTURE



DIATHONITE: the other raw materials



**EXPANDED AMORPHOUS
SILICIUM**

- Excellent insulating properties
- Extremely porous

**NATURAL HYDRAULIC LIME
NHL 5**

- Breathable and hard
- Anti-bacterial



PUMICE STONE

- Resistant to fire
- High mechanical resistance

DIATHOMEIC POWDERS

- High hygrometric capacity
- Extremely porous



CELLULOSE FIBERS

- Elastic and flexible
- Solvent-free

PERLITE

- Excellent thermal capacity
- Resistant to fire



DIATHONITE THERMACTIVE.037



The **REVOLUTION** of thermal insulation

$$\lambda = 0,037 \text{ W/mK}$$

These days, Diathonite Thermactive.037 is the best insulation material you can find on the market: as a traditional insulation made with panels (cappotto), **BUT** with an easy (and cheaper!) way of application, totally safe for end users (resistant to fire)

DIATHONITE THERMACTIVE.037



Thermal Conductivity | $\lambda = 0,037 \text{ W/mK}$

Breathability | $\mu = 3$

Density | 250 kg/m^3

Consumption | $2,60 \text{ kg/m}^2 *$

Fire Reaction | Euroclasse A1

Compression Resistance | $2,80 \text{ N/mm}^2$

Flection Resistance | $1,00 \text{ N/mm}^2$

Porosity | 71%

Thermal Difusivity | $\alpha = 0,14 \text{ m}^2/\text{Ms}$

Thermal Resistance | $R = 0,27 \text{ m}^2\text{K/W} *$

* for 1 cm of thickness

DIATHONITE THERMACTIVE.037



Z Lab Srl

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C.F./P.IVA 02684650756 - Cap. Soc. € 50.000 i.v.
R.E.A. co C.C.I.A.A. Verona 370649

RAPPORTO DI PROVA N. 001-2017-TRM rev.1

UNI EN 12667:2002
DETERMINAZIONE DELLA RESISTENZA TERMICA CON IL METODO DEL
TERMOFLUSSIMETRO

Luogo e data di emissione: Cerea (VR), 11/03/2017

Committente: DIASEN SRL

Indirizzo Committente: Via Berbenina 5, 60041 Sassoferrato (AN)

Data della fornitura del campione: 30/01/2017

Campione fornito da: DIASEN SRL

Data della installazione del campione: 10/02/2017

Campione installato in laboratorio da: Z Lab S.r.l.

Data dell'esecuzione della prova: 10/02/2017

Luogo della prova: Z Lab S.r.l. - Via Pisa, 5/7 - 37053 Cerea (VR) - Italia

REDATTO	VERIFICATO	APPROVATO
Antonio Scofano	Antonio Scofano	Antonio Scofano

M-TEC-52 rev.1
del 14/09/2015

Il presente rapporto di prova è composto da n. 3 pagine e non può essere riprodotto parzialmente, salvo autorizzazione scritta di Z Lab Srl. I risultati riportati nel presente documento sono riferiti esclusivamente al campione ed al materiale oggetto di prova. I campioni vengono conservati per 30 giorni dopo il termine della prova.

Pagina
1 di 3



Rapporto di prova 001-2017-TRM rev.1

Risultati della prova

T ₂	Temperatura media lato freddo	0,02	[°C]
T ₁	Temperatura media lato caldo	20,02	[°C]
ΔT	Differenza di temperatura	20,00	[°C]
T _m	Temperatura media test	10,02	[°C]
q ₂	Flusso di calore lato freddo	25,27	[W/m ²]
q ₁	Flusso di calore lato caldo	25,54	[W/m ²]
R	Resistenza termica specifica	0,0036	[m ² K/W]
λ	Conduttività termica	0,03731	[W/mK]

DIATHONITE THERMACTIVE.037



Via G. Cesarelli 1 (Loc. Campo dell'Oro), 60041 Fabriano (AN)
Tel. 0732-626511 / Fax 0732-626999
web: www.meccano.it
email: led@meccano.it

Laboratorio prove autorizzato con D.M. n°. 3696 del 21.07.08 a effettuare prove sui materiali da costruzione ai sensi dell'art. 20, legge del 05.11.1974 n°. 1086.

MEASURING OF THERMAL CONDUCTIVITY - EN 12667 -

TEST REPORT NUMBER: RPLED 000517-01 DEL 13th/03/2017

Test was performed in Genial Material laboratory

HOLDERS:	Diasen s.r.l.
ADDRESS:	Zona Industriale Berbentina 5 60041 Sassoferrato (AN)
NATURE OF THE SAMPLE:	<i>Diathonite Thermactive</i>

Realization of sample	29 th /04/2016
Drying time	28 days
Receipt of sample	30 th /05/2016
End of the test	08 th /06/2016
Length of the test	2 hours

Operator: Eng. Tribuiani Chiara
Observer: Dr. Sonaglia Simone – Research & Development Laboratory Responsible
Eng. Giovanna Fattorini – Meccano Laboratory Responsible

Introduction

This standard, EN 12667 "Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods - Products of high and medium thermal resistance", specifies principles and testing procedures for determining the thermal resistance of test specimens having a thermal resistance of not less than 0,5 m²·K/W. The test was performed on a sample of product called *Diathonite Thermactive*. The sample was realized by Diasen on 29th/04/2016.

References

- EN 998-1: "Specification for mortar for masonry - Part 1: Rendering and plastering mortar".
- EN 12667 "Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods - Products of high and medium thermal resistance".
- EN 12667 Par. 5.2.3 Single Specimen Apparatus.

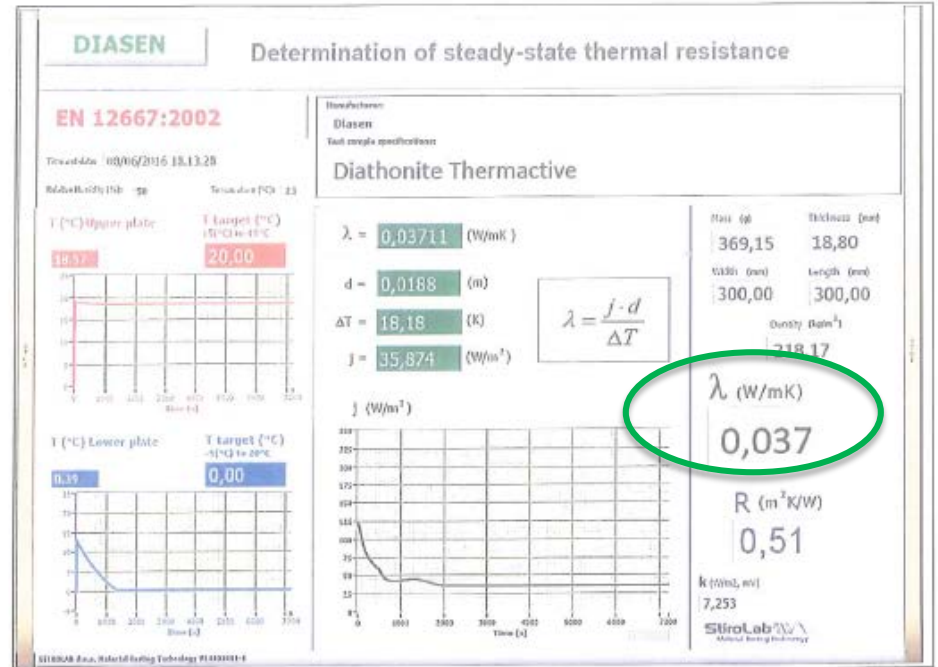


Fig. 2 – Thermal conductivity of the sample *Diathonite Thermactive*.

Density:

$$\rho = 218,17 \left[\frac{kg}{m^3} \right]$$

Thermal conductivity:

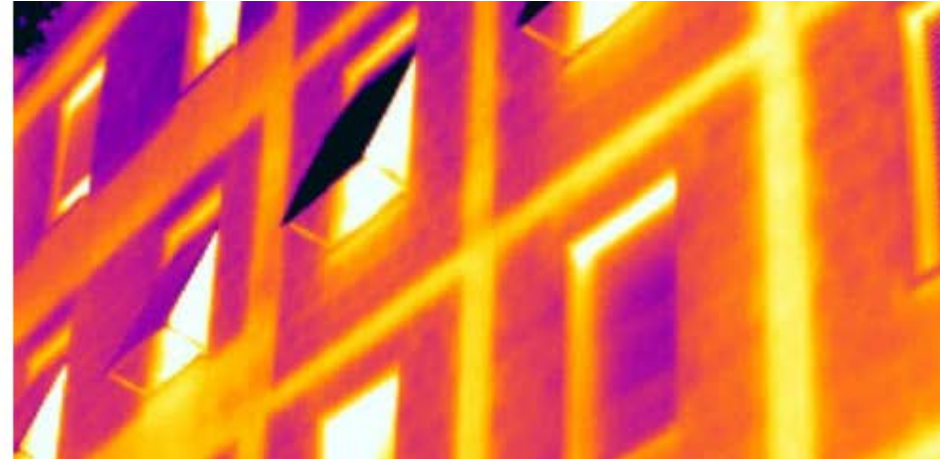
$$\lambda_{10, dry} = 0,03711 \left[\frac{W}{m \cdot K} \right]$$



DIATHONITE THERMACTIVE.037

The perfect solution for **thermal bridges**

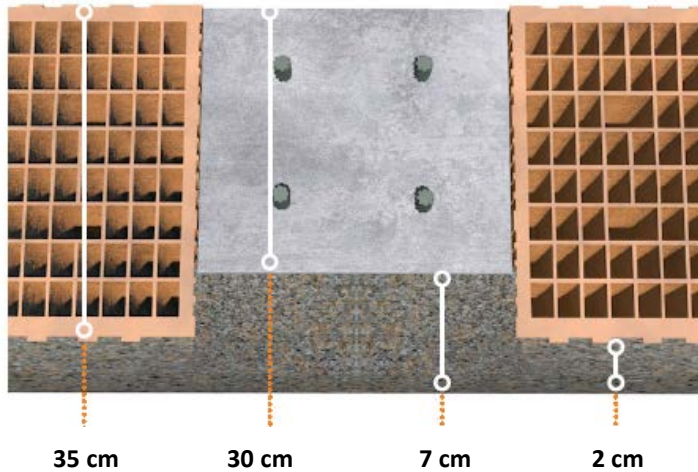
Thermal bridges are portions of masonry where different materials with different insulating capacities are used, creating "thermal discontinuity" that favour thermal dispersion. Concrete pillars and beams are a classic example of thermal bridge. **Thermal bridges are one of the biggest causes of heat dispersion in buildings, and failure to correct them can also give rise to condensation phenomena and the development of mould.**



Diathonite is the solution for all the problems of **thermal bridge**

DIATHONITE THERMACTIVE.037

Diathonite is the solution to any problem of **thermal bridge**



No heat dispersion

Rectifying thermal bridges prevents outward heat dispersion, thus increasing energy saving.

No condensation and mould

A corrected thermal bridge will not give rise to the formation of condensation and, consequently, mould on the internal surface of the wall.

Increased thermal comfort

The uniform surface temperature of the wall, through irradiation, increases well-being and living comfort.

Easy levelling of the walls

Insulating a thermal bridge with Diathonite Thermactive.037 enables you to keep the surface of the wall flat.



Insulation 24/7 for 365 days

$$a = \frac{\lambda}{(\rho * c)}$$

Thermal Difusivity ← → Thermal Conductivity
Density ← → Specific heat

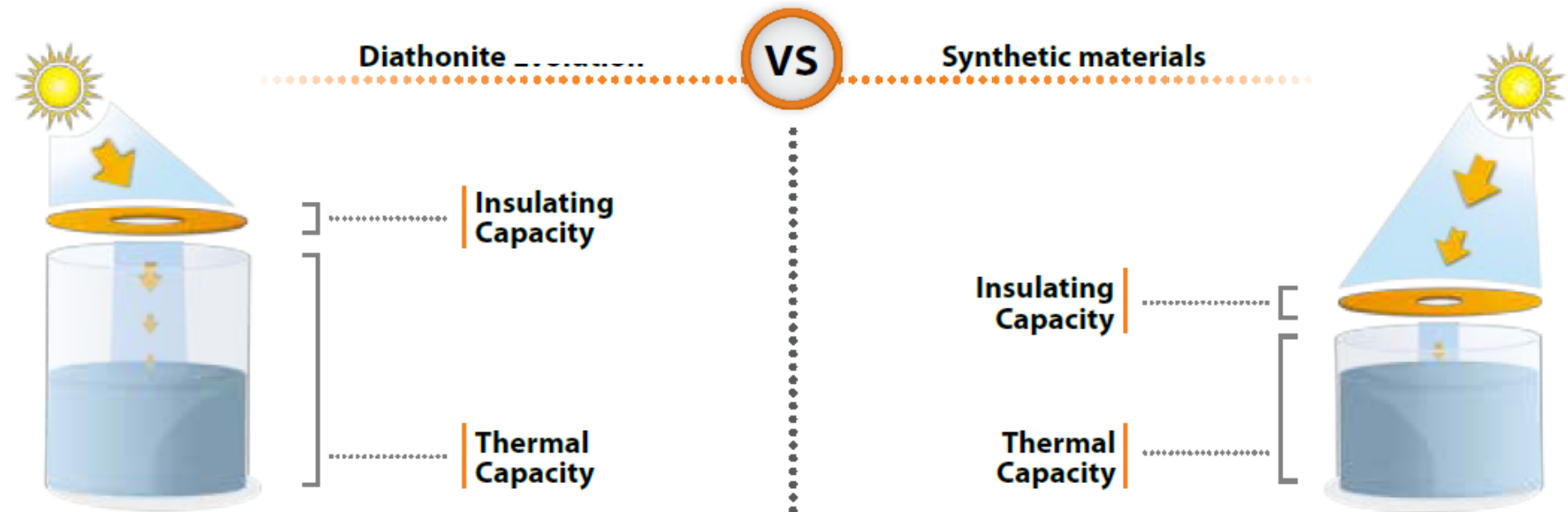
The parameter that enables us to evaluate the actual thermal insulation capacity **from heat** of an insulating material is **thermal diffusivity**. **Thermal diffusivity is the ratio between insulating capacity λ (thermal conductivity) and thermal capacity (factor of specific heat p and specific weight c).**

Insulation 24/7 for 365 days

	Density ρ [kg/m ³]	Specific heat c [J/kgK]	Thermal Conductivity λ [W/mK]	Thermal Difusivity α [mm ² /s]
INSULATION MATERIAL				
Concrete	300	1000	0,089	0,30
Wood	150	2000	0,040	0,13
Rockwool	100	1030	0,035	0,34
Hemp panel	50	1700	0,040	0,34
Glass fibers	80	1030	0,035	0,42
XPS	35	1450	0,035	0,70
EPS	25	1200	0,036	1,20
Polyurethanic foam	43	1400	0,028	0,46
Diathonite Evolution	360	1000	0,045	0,13
Diathonite Thermactive.037	250	1000	0,037	0,14

The lower is the thermal diffusivity level, the better is the insulation against heat during Summer

Insulation 24/7 for 365 days



The insulating capacity (thermal conductivity) lessens the intensity of the incoming thermal wave.

Optimal thermal capacity allows heat to accumulate, delaying inward transfer to only the coolest hours of the day.

The insulating capacity (thermal conductivity) lessens more the intensity of the incoming thermal wave.

However the limited heat capacity, which is mainly due to a low specific density, is unable to accumulate heat, thus allowing it to radiate into the rooms.

Insulation 24/7 for 365 days

The European Union, for 2030, has established ambitious objectives on the continental economic development:

- REDUCE EMISSION OF AT LEAST 40%, COMPARED TO 1990
- INCREASE ENERGY CONSUMING FROM RENEWABLE RESOURCES
- ENSURE ENERGY SAVINGS, COHERENT WITH EUROPEAN STRATEGY
- INCREASE EUROPEAN SAFETY, COMPETITIVENESS AND SUSTAINABILITY

PARAMETER	CURRENT STATIONARY CALCULATION UNI TS 11300	FUTURE DYNAMIC MODE UNI EN ISO 52016-1:2018
INSULATION FROM COLD	★ ★ ★	★ ★ ★
INSULATION FROM HEAT	★ ★ ★	★ ★ ★
HYGROMETRY	★ ★ ★	★ ★ ★
THERMAL RESISTANCE (R)	★ ★ ★	★ ★ ★
INERTIA (KELI THERMICAL CAPACITY)	★ ★ ★	★ ★ ★
SOLAR ABSORPTION COEFFICIENT (ALFA SOL)	★ ★ ★	★ ★ ★
CLIMATIC HOUR DATA	★ ★ ★	★ ★ ★

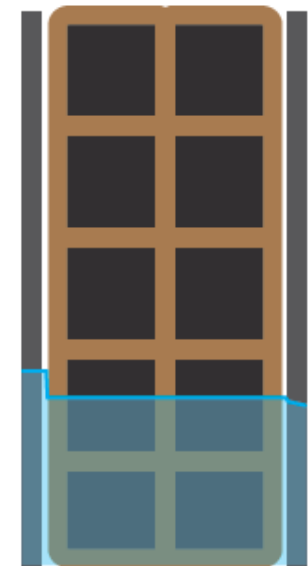
In this sense, it is forecasted to re-examine some European directives: it goes beyond the current half-stationary calculation introducing the dynamic hour calculation. The new legislation will enter into force in the next two years and it is more efficient for the calculation of the energy savings during summer.

DIATHONITE THERMACTIVE.037



UNSTABLE DAMP LEVEL THANKS TO BREATHABILITY SYSTEM

NONE INSULATED PART.



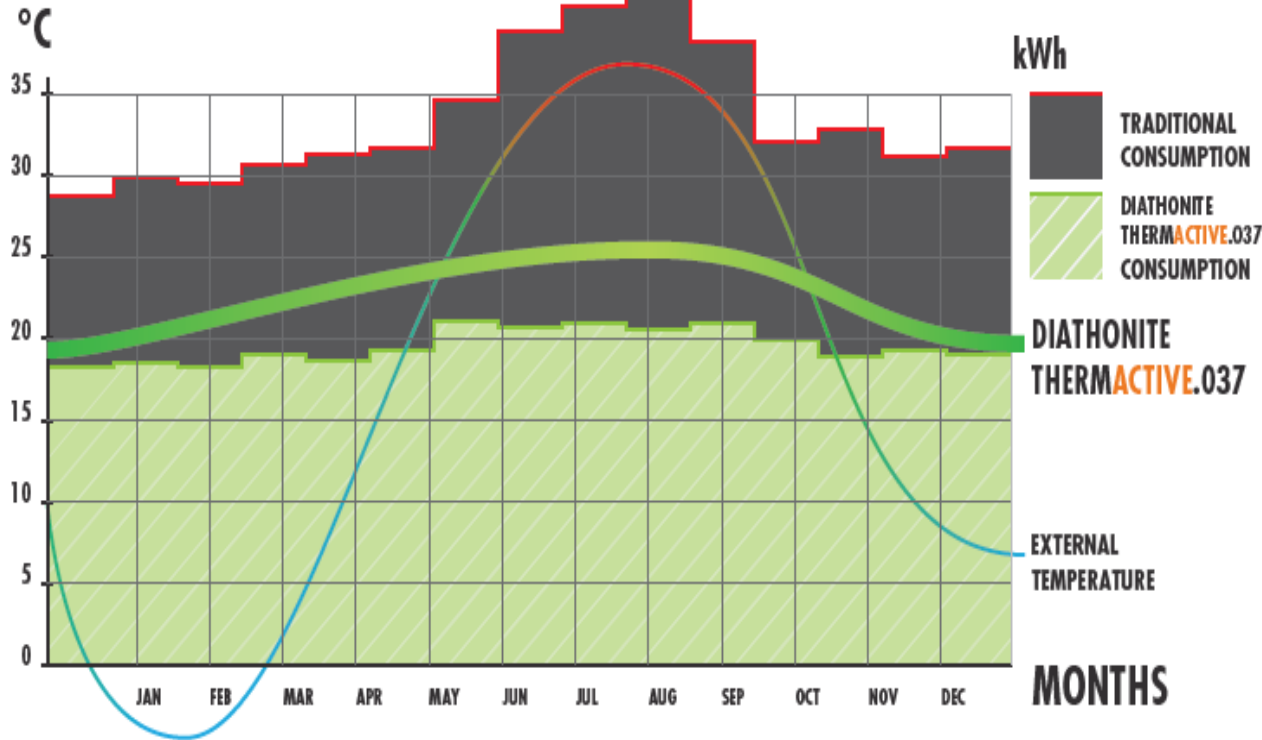
HIGH LEVEL OF DAMPNES: CONDENSATION RISK, MATERIAL NOT BREATHABLE

The wall sections show two levels of interstice condense. On the left, with Diathonite Thermactive.037, the level is lower than the right wall.

Because Diathonite Thermactive.037 does not deposit damp and, thanks to its breathable proprierty, it expells outward the damp of the building.

Insulation 24/7 for 365 days

The limits of the current calculation mode will bring to substitute TS 11300 in favour of a dynamic hour model, thanks to EN ISO 52016 legislation "Building energy performances - Energy needs for cooling and heating, indoors temperatures and thermal sensible and latent loads"



In the Mediterranean climate, it occurs to protect the building from heat entrance. For this reason, a planning summer strategy should forecast an insulation of the coat, the study of the solar screen, analysis of inertial building answer as well as the exploitation of natural ventilation. More we go southward, more the energy consumptions increase during summer. Moreover, this new calculation highlights how some materials, instead of saving energy, increases the consumption.

THE GLOBAL OVERHEATING

According to a New York Times' study, the future thermal levels will be superiors in Italy, compared with the current ones. In around half a century, in many Italy areas will be possible to have two/three months of temperatures higher than 32 degrees. Therefore, the protection from high temperatures will be the great challenge of the building sector and, at the same time, a good test for "building Mediterranean" systems and products.

Diathonite vs. EPS – Old masonry – Athens

Without using any insulation	
Thickness	40 cm
Thermal transmittance	1,42 W/m ² K
Winter consumption	6459 kWh
Summer consumption	9055 kWh
Total consumption	15514 kWh

Diathonite Thermactive.037 vs. EPS				
	DIATHONITE	EPS	DIATHONITE	EPS
Thickness	3 cm	3 cm	4 cm	6 cm
Thermal transmittance	0,61 W/m ² K	0,66 W/m ² K	0,56 W/m ² K	0,42 W/m ² K
Winter consumption	4106 kWh	4083 kWh	3801 kWh	3458 kWh
Summer consumption	8834 kWh	9646 kWh	8929 kWh	9721 kWh
Total consumption	12940 kWh	13729 kWh	12730 kWh	13179 kWh
% of consumption in Winter *	-36,4%	-36,8%	-41,2%	-46,5%
% of consumption in Summer *	-2,4%	6,5%	-1,4%	7,4%
% of total consumption *	-16,6%	-11,5%	-17,9%	-15,0%

* The % value indicates the difference of energy consumption between the insulated wall and the same wall without insulation (see table above)

Diathonite vs. EPS – New building – Athens

Without using any insulation















Thickness	40 cm
Thermal transmittance	0,66 W/m2K
Winter consumption	4131 kWh
Summer consumption	9460 kWh
Total consumption	13594 kWh

Diathonite Thermactive.037 vs. EPS

	DIATHONITE	EPS	DIATHONITE	EPS
Thickness	3 cm	3 cm	4 cm	6 cm
Thermal transmittance	0,43 W/m2K	0,42 W/m2K	0,39 W/m2K	0,31 W/m2K
Winter consumption	2969 kWh	2828 kWh	2675 kWh	2527 kWh
Summer consumption	9264 kWh	9749 kWh	9300 kWh	9899 kWh
Total consumption	12233 kWh	12577 kWh	11976 kWh	12425 kWh
% of consumption in Winter *	-28,2%	-31,6%	-35,3%	-38,9%
% of consumption in Summer *	-2,1%	3,1%	-1,7%	4,6%
% of total consumption *	-10,0%	-7,5%	-11,9%	-8,6%

* The % value indicates the difference of energy consumption between the insulated wall and the same wall without insulation (see table above)

Diathonite vs. EPS – Comparisons

	DIATHONITE	EPS
Cold insulation		
Heat insulation		
Breathability		
Reaction to fire		
Mechanical resistance		
Energy saving 365 days		
Eco-friendly material		

Diathonite is made of natural raw materials, that is why for certain reasons the cost per KG may be higher compared to traditional solutions.

Anyway, it is important to say that the average cost per M2 is pretty similar between the two technologies and comparing the advantages above, Diathonite guarantees much more benefits and indoor living confort.

DIATHONITE DEUMIX+

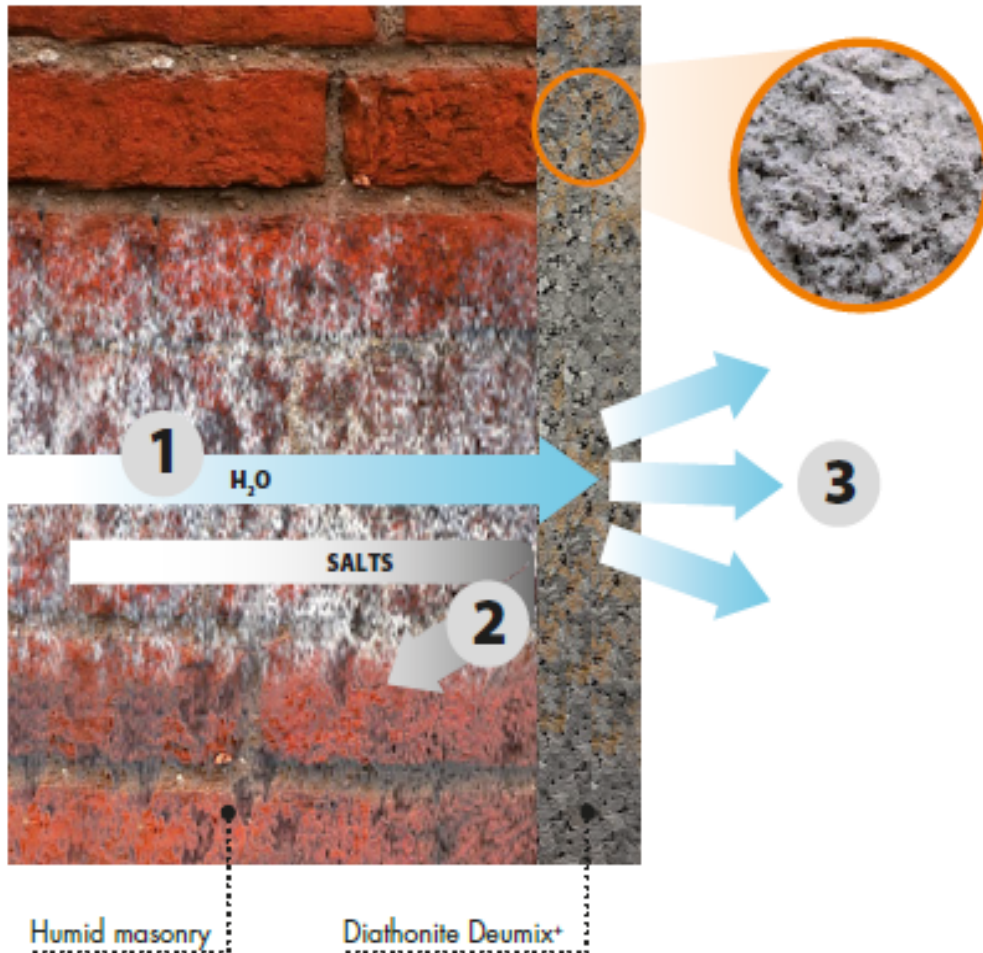
Dampness, salts and condensation? Diathonite is the solution



Thanks to its macro-porosity and breathability ($\mu = 4$), Diathonite can absorb **all the dampness** and it releases it outside of the wall: this way, no more condensation and mould will appear on the walls, improving the living confort of the building; furthermore, the special additive inside the composition will avoid any white spot on the wall

DIATHONITE DEUMIX+

Dampness, salts and condensation? Diathonite is the solution



1 Dehumidification of the masonry

The dampness present inside the walls, coming in contact with the dehumidifying system, is rapidly **absorbed and transported outwards**, allowing for complete drying of the wall. Even in the case of new dampness, the drying action of the system remains unchanged, thanks to the unique porous structure of the material.

2 Saline protection

In the case salts are dissolved in the water inside the masonry the special natural active ingredient present inside **Diathonite Deumix+** makes it possible to **efficiently block the passage of salts, allowing only the penetration of moisture**. As a result of osmosis, the salts are reabsorbed by the masonry, thus preventing the saturation of the porosity of the plaster.

3 Moisture evaporation

Once purified from the salts, the moisture enters in contact with Diathonite **Deumix+ dehumidification plaster**. The porous structure of the material grants the plaster great breathability, and the water spreads through the capillary absorbency of the **Diathonite Deumix+**, making possible a **rapid transformation into water vapour** and thus, resulting in fast drying.

DIATHONITE DEUMIX+

Dampness, salts and condensation? Diathonite is the solution

Detail of the hygroscopic capacity of Diathonite, which can absorb and dissipate the humidity it comes into contact with, preventing it from lingering in the environment and giving rise to condensation and mould.



Its hygroscopic capacity enables Diathonite to absorb and rapidly dissipate humidity.

0.40
 $\text{kg/m}^2\text{min}^{0.5}$

Its hygroscopic capacity enables rapid absorption of humidity, thus preventing it from lingering in the environment or transforming into condensation.



DIASEN
GREEN BUILDING FUTURE

DIATHONITE DEUMIX+

Dampness, salts and condensation? Diathonite is the solution

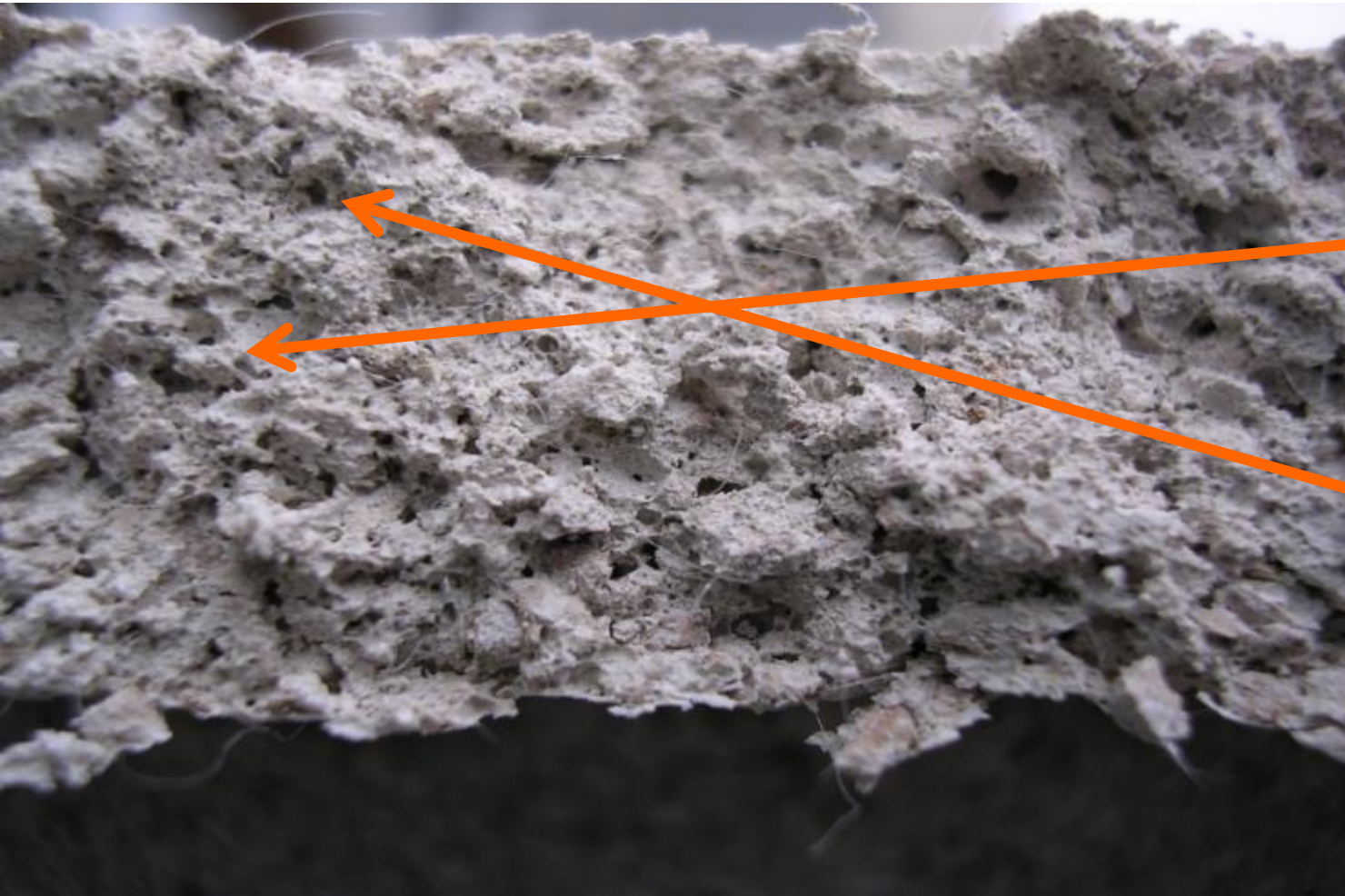
WATSTOP

Waterproofing mortar highly resistant to humidity in **negative pressure**: with just 2 mm of thickness it resists up to **9,5 ATM** in negative pressure. Suitable for underground walls.



DIATHONITE ACOUSTIX

Diathonite is also an excellent **acoustic insulation material** and it also ensures **sound absorption**

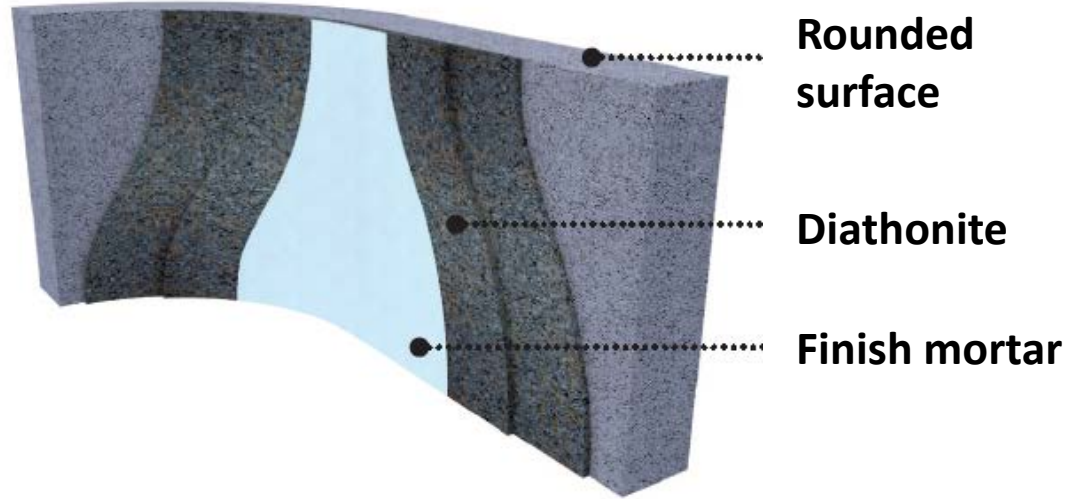


Cork + macro-porosities is a perfect combination to absorb the noise

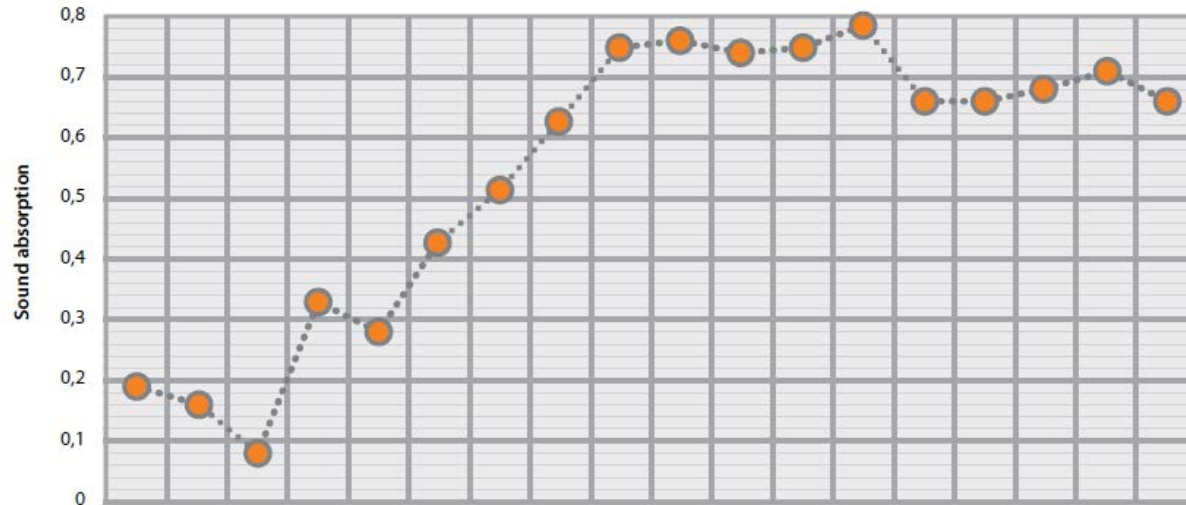
IT ABSORBS MORE THAN 70% OF SOUND-WAVE WITH 3 CM OF THICKNESS

DIATHONITE ACOUSTIX

Application on any kind of surface



DIATHONITE ACOUSTIX

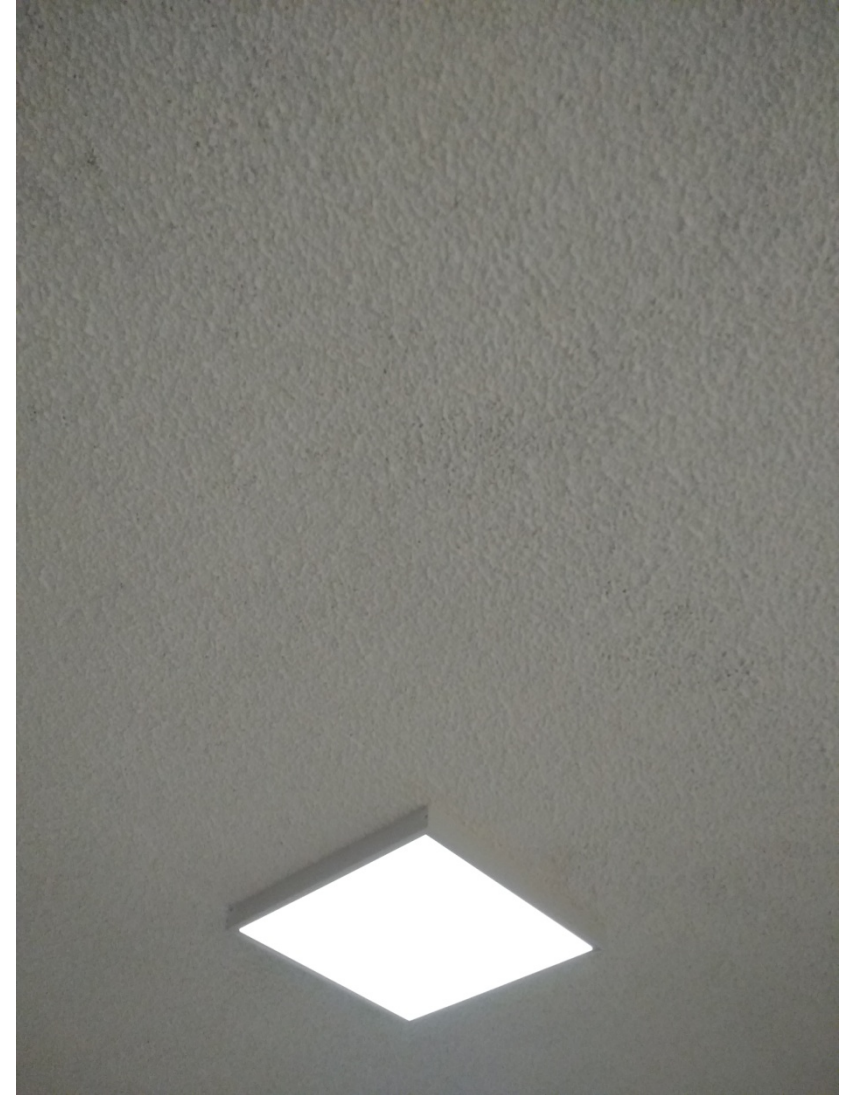


Frequency (Hz)	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
α_s	0,19	0,16	0,08	0,33	0,28	0,43	0,51	0,63	0,75	0,76	0,74	0,75	0,79	0,66	0,66	0,68	0,71	0,66
α_p	0,10			0,35			0,65			0,75			0,65			0,70		

Sound absorption technical data	Value	Regulation
Noise Reduction Coefficient (NRC)	0.60	ASTM C423
NRC - painted material	0.55	ASTM C423
Sound Absorption Average (SAA)	0.61	ASTM C423
Weighted Sound Absorption Coefficient (α_w)	0.65	UNI EN ISO 11654
Sound Absorption Class	C	UNI EN ISO 11654

Technical Data	value	Regulation
Fire resistance	Class A1	UNI EN 13501-1
Mechanical resistance	3 N/mm ²	UNI EN 1015-11
Breathability (μ)	4	UNI EN ISO 12572
Thermal Conductivity (λ_{10dry})	0,083 W/mK	UNI EN 12667

DIATHONITE ACOUSTIX



DIATHONITE SCREED


Diathonite is also an excellent **thermal and acoustic insulation material** for **screed**



- 1 Floor slab-on-grade
- 2 Floors of non heated rooms
- 3 Suspended slab
- 4 Terraces and balconies
- 5 Attic floor
- 6 Flat or pitched roof

DIATHONITE SCREED

Diathonite is also an excellent **thermal and acoustic insulation material** for **screed**

	DIATHONITE SCREED
	0068 - CPR - 021/2014
	UNI EN 13813
	Screed material and floor screeds - Screed material - Properties and requirements.

THERMAL CONDUCTIVITY

λ = 0,060
W/mK

IMPACT SOUND INSULATION OF FLOORS

L¹ nw
58 dB*

COMPRESSION RESISTANCE

> 5
N/mm²

BENDING RESISTANCE

> 1
N/mm²

REACTION TO FIRE

Euroclass
A1

DRY MORTAR POROSITY

63,48%

DIATHONITE SCREED

Diathonite is also an excellent **thermal and acoustic insulation material** for screed

Traditional Screed



A room with a traditional screed, even if properly heated, will have **different temperature** between the upper and the lower part, with a cold floor and a **thermal gap**.

Diathonite Screed



A room with **Diathonite Screed** will have a **constant temperature** even when heating is turned off. The temperature uniformity creates a feeling of **thermal comfort** inside the room.

DIATHONITE SCREED

Diathonite is also an excellent **thermal and acoustic insulation material** for **screed**

1. Mixing



Mix the product in a concrete mixer after added the right water amount as stated in the technical data sheet.

2. Creation of reference bands



Use Diathonite Screed to create reference bands for the total thickness.

3. Application of screed



Apply Diathonite Screed directly onto the substrate.

4. Smoothing



Use a traditional straightedge to smooth the screed, using the previously made bands as reference.

5. Finishing



Finish the surface with a plasterer's trowel before the application of the paving material.

6. Application of tile



Apply the paving material or the waterproofing system once the screed is completely dry.

DIATHONITE

All Diathonite plasters are premixed materials, so **their application does not change from the application of a traditional plaster**. After mixing it, it can be applied by hand (with a trowel) or by pump (by spraying).

Equipment:
Cement mixer and trowel



DIATHONITE

For application on **ceilings**, we always recommend to apply by spraying



DIATHONITE

Application on any kind of surface

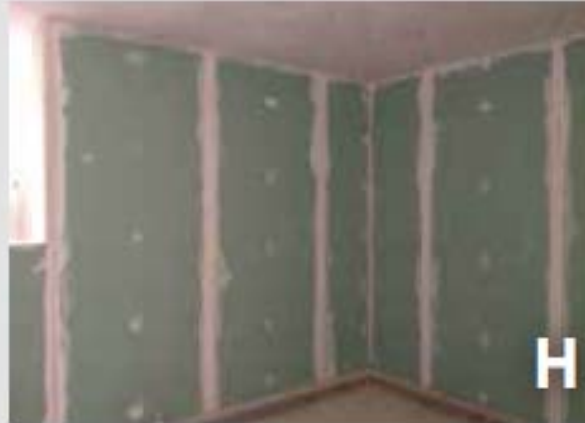


**Direct
application**

- A** New bricks
- B** Existing bricks
- C** Existing plaster
- D** Stones
- E** Cork Panels
- F** Natural fibre panels

DIATHONITE

Application on any kind of surface



Use of

AQUABOND

Universal primer
for plasters

G

Concrete

H

Plasterboard

I

Wood

J

Synthetic panels

SMOOTHERS

ARGATHERM

It can be used to fill the porosity of Diathonite: thanks to its formulation, it can improve the thermal insulation. Texture: 0-0.6 mm, the aspect is a little bit rough

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



ARGATHERM ACOUSTIX

Specific smoother for Diathonite Acoustix: it is enriched with special fibers and it is extremely porous; its texture is of 0-0.6 mm, so the aspect is a little bit rough

$$\text{NRC} = 0,50 \text{ (in combination with 30 mm of Diathonite Acoustix)}$$



SMOOTHERS

ARGACEM ULTRAFINE

It must be used over one coat of Argatherm in order to have a completely smooth surface: the material is breathable and resistant to cracks. Texture: 0-0.1 mm.



ARGACEM COLOURED

Coloured finish to be used as a smoother and paint for Diathonite plasters: it can be directly applied onto Diathonite, using D20 as a primer. Texture: 0-0.6 mm.



Cork-based paints

DIATHONITE CORK RENDER

Extremely elastic cork-based paint, made with acrylic resins, to be used on facades

$$\lambda = 0,086 \text{ W/mK}$$

Elasticity: 192%



DECORK

Breathable cork-based finish for indoors and outdoors, to create decorative effects

$$\lambda = 0,086 \text{ W/mK}$$

$$\mu < 10$$



DECORK ALFAREFLEX 0.2

Ultra-reflective finish for facades: it is available in white color and it reduces the absorption of heat

$$\lambda = 0,086 \text{ W/mK}$$

$$\alpha_{sol} = 0.2$$

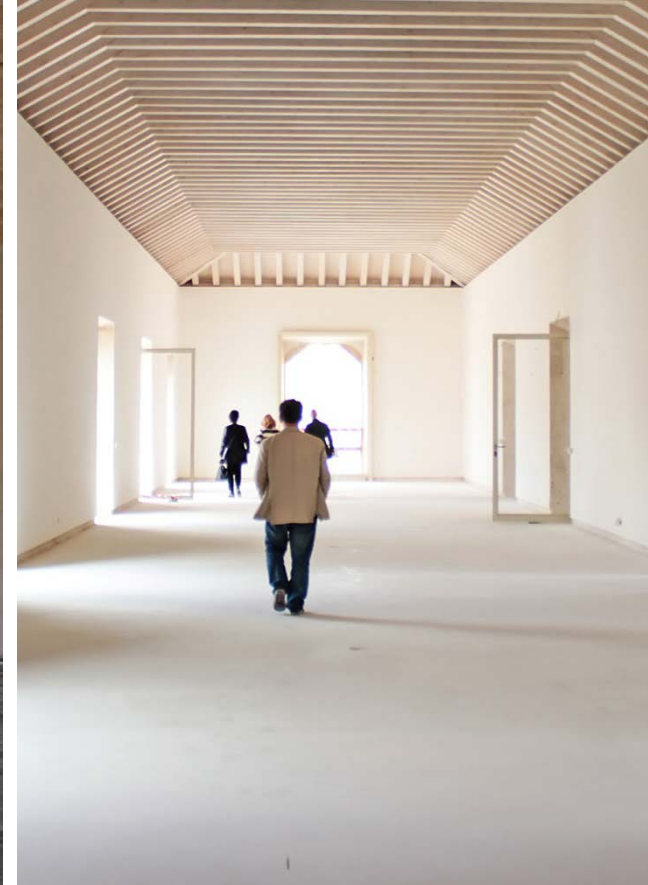


Reference Buildings around the world



“Monastery of Jesus”, Setúbal, Portugal, 2014-2015

Reference Buildings around the world



“Monastery of Jesus”, Setúbal, Portugal, 2014-2015

Reference Buildings around the world



“Monastery of Jesus”, Setúbal, Portugal, 2014-2015

Reference buildings around the world



“Belgrade Waterfront”, Belgrade, Serbia,
2018



Reference Buildings around the world



“Data Center Portugal Telecom”, Covilhã, Portugal, 2013

Reference Buildings around the world



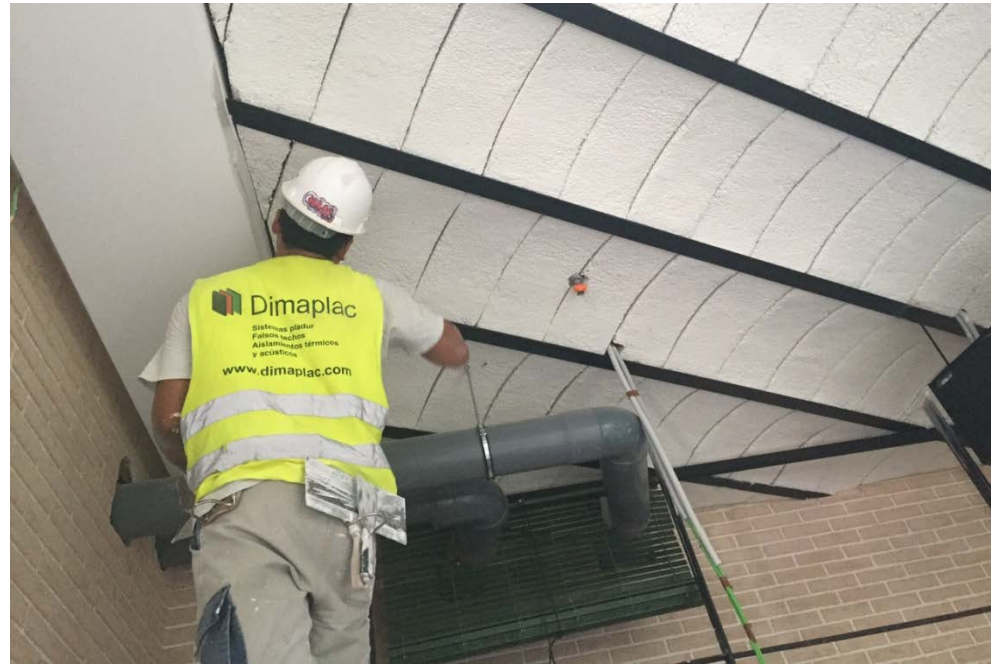
Luxury palace, Barcelona, Spain, 2016

Reference Buildings around the world



“Disfrutar Restaurant”, Barcelona, Spain, 2015

Reference Buildings around the world



“Mussol Restaurant”, Barcelona, Spain, 2015

Reference Buildings around the world



“Mussol Restaurant”, Barcelona, Spain, 2015

Reference Buildings around the world



“Cinema Ideal”, Lisbon, Portugal, 2014

Reference Buildings around the world



“Cinema Ideal”, Lisbon, Portugal, 2014

Reference Buildings around the world



“Mercat de la Princesa Restaurant”, Barcelona, Spain, 2015

Reference Buildings around the world



“Mc Donald’s Campo Grande”, Lisbon, Portugal, 2016

Reference Buildings around the world



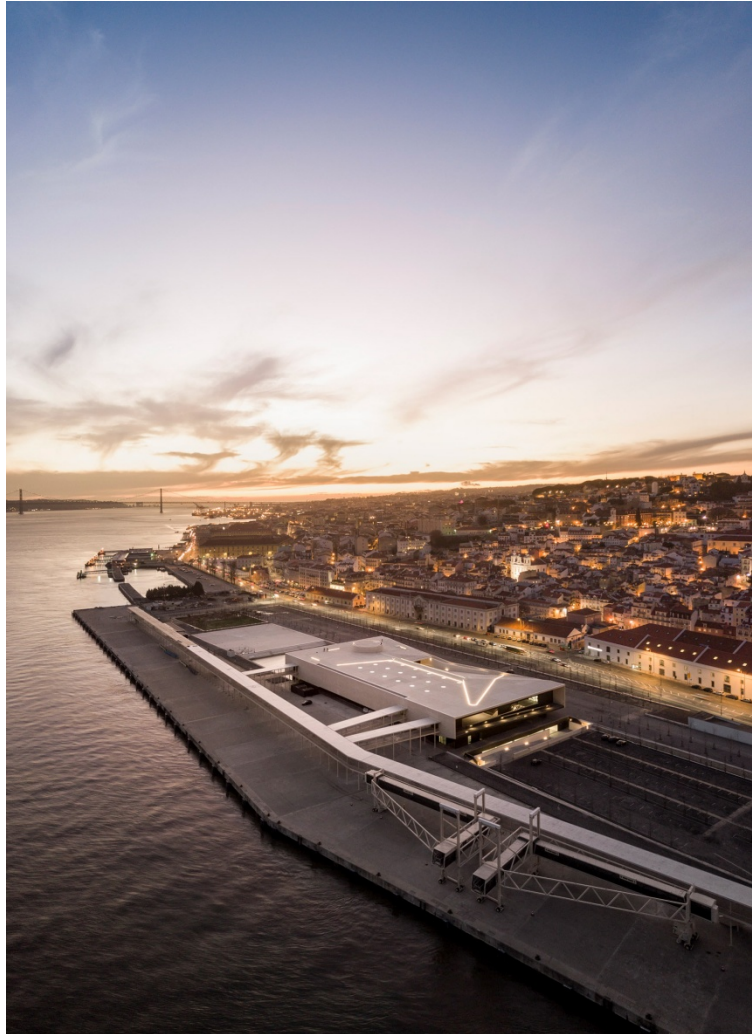
“Cruise Terminal”, Lisbon, Portugal, 2016-2017

Reference Buildings around the world



“Cruise Terminal”, Lisbon, Portugal, 2016-2017

Reference Buildings around the world



“Cruise Terminal”, Lisbon, Portugal, 2016-2017



Thank You

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