

DECORK[®]

CORK BASED COATING

THE ELEGANCE
OF NATURAL
WELLBEING



DIASEN[®]
GREEN BUILDING FUTURE



**THE SUSTAINABLE
LIGHTNESS
OF CORK**



INDEX

- 2** Cork-based paints: the concept and the challenge
- 4** The innovative formula
- 6** Decork: one line, countless solutions
- 8** Certifications
- 10** Decork Design, beauty that brings warmth
- 12** Decork Design performance
- 14** Wall application (Indoor)
- 16** Advantages of wall application (Indoor)
- 18** Decork Façade, the evolution of coloured finishes
- 20** Decork Façade performance
- 22** Decoration and recovery of facades
- 24** Advantages of application on facades
- 26** Decork Alfareflex, the comfort of solar reflection
- 28** Decork Alfareflex performance
- 30** Application on facades
- 32** Advantages of application on facades
- 34** Decork for trowel application
- 36** Decork for spray application
- 38** Successful projects: Decork Design
- 40** Successful projects: Decork Façade
- 42** Successful projects: Decork Alfareflex



CORK-BASED PAINTS: THE CONCEPT AND THE CHALLENGE

Decork is the result of a challenge encompassing formulation, functionality and aesthetics: to develop a line of coatings that combine beauty with the technology of a natural raw material like cork, striking an innovative balance between the design aesthetic and the need for protection and comfort.

Decork delivers real innovation in terms of the scope of indoor and outdoor applications: with versatile use on all types of support, it is available in a wide range of colours and can be used to create functional and original effects that bring a unique and exclusive look to any space.







THE INNOVATIVE FORMULA





DECORK IS DESIGNED TO MEET THE FUNDAMENTAL NEED FOR COMFORT INCUMBENT ON BUILDINGS DESIGNED TO SERVE A COMPLEX RANGE OF FUNCTIONS. THE LINE COMPRISES COATINGS FOR FACADES, INTERIORS AND FLOORS, PROPOSING INNOVATIVE, ELASTIC FINISHES THAT GUARANTEE EXCELLENT THERMAL COMFORT.

The use of Decork finishes in the refurbishment of facades also avoids the need for complex work cycles, as one product does all the work of a traditional smoother and paints. In addition, Decork allows renovation of facades without the need for scaffolding, offering clear advantages in terms of costs and application.

The products of the Decork line provide solutions to many different problems thanks to the mix of water-based resins and cork, which guarantees extremely stable finishes. This overcomes any unevenness of the support and ensures elasticity, as the products can bridge spalls of up to 2.5 mm in width.



DECORK, ONE LINE COUNTLESS SOLUTIONS



THE LINE OF CORK-BASED COATINGS IS DESIGNED TO OFFER A COMPREHENSIVE RESPONSE TO THE DECORATIVE COATING REQUIREMENTS OF BUILDINGS.



Three eco-friendly, functional materials express the insulation, decoration and protection requirements satisfied by the Decork line:

- **DECORK DESIGN**

The water-based decorative coating for interiors, available in a range of colours for highly original walls, ceilings and floors.

- **DECORK FAÇADE**

The eco-friendly thermal coating available in a range of colours for facades, thermal plasters and exterior insulation systems.

- **DECORK ALFAREFLEX**

The ultimate innovation in coatings, stemming from extensive experience gained over the years with Decork Façade, it combines thermal insulation and reflective properties in a single product.

CERTIFICATIONS

THE PERFORMANCE OF THE DECORK LINE OF CORK-BASED COATINGS IS VALIDATED BY ENVIRONMENTAL SUSTAINABILITY AND PERFORMANCE CERTIFICATIONS, WHICH TESTIFY TO AN ORIGINAL MIX OF VERSATILITY AND INNOVATION.



SUSTAINABILITY CERTIFICATIONS



The products of the Decork line feature an Environmental Product Declaration (EPD) which provides objective, comparable information on the products' environmental performance. The EPD outlines products' environmental impact in a transparent manner, allowing evaluation of product performance within the framework of Minimum Environmental Criteria (MEC)



Leed is a green building standard that recognises a product's ability to contribute to healthier spaces, better indoor air quality, energy savings and the building's value.

PERFORMANCE CERTIFICATIONS



The properties and specifications of the Decork line comply with European regulations and meet all standards required in Europe. The CE mark testifies to the safety, quality and uniqueness of Decork which are essential elements for ensuring customer satisfaction.



DECORK DESIGN, BEAUTY THAT BRINGS WARMTH

Decork Design is a coloured decorative coating for interiors which aims to overcome limits on design creativity by enabling an array of different effects to be obtained. A rich variety of options that meet professionals' individual needs and guarantee superb performance linked to the natural virtues of cork.

Decork Design has outstanding breathability; as well as allowing walls to breathe, it guarantees excellent thermal insulation by exploiting cork's ability to absorb and trap air in the cavities of its honeycomb structure.



Durability, elasticity and fire resistance complete the functional credentials of this sustainable product, which **satisfies** tastes and aesthetic requirements while also ensuring the thermal comfort that is an integral part of living comfort, the modern frontier of a new way of enjoying and using spaces.



DECORK DESIGN PERFORMANCE

ELASTICITY IS ONE OF DECORK DESIGN'S MOST STANDOUT CHARACTERISTICS. WHILE THIS IS A DECORATIVE COVERING, CORK GIVES IT AN ELASTICITY OF 60%.

Thanks to cork, Decork Design ensures excellent thermal performance, guaranteeing insulation for walls and, when used on floors and pool surrounds, it prevents overheating to deliver total comfort.





THERMAL INSULATION

$\lambda = 0.086 \text{ W/mK}$



BREATHABILITY

$\mu = 15$



CRACK BRIDGING ABILITY

2.5 mm

Permeability to Co^2	Class C1	-	EN 1062-1
Permeability to water	Class W2	-	EN 1062-1
Water vapour transmission	Class V3	-	EN 1062-1
Gloss	Class G3	-	EN 1062-1
Grain size	Class S1	-	EN 1062-1
Thickness	Class E5	-	EN 1062-1
Crack Bridging	Class A5	-	EN 1062-1





WALL APPLICATION (INDOOR)

DECORK DESIGN

REPRESENTS THE IDEAL SOLUTION FOR STYLISH, SOPHISTICATED DECORATION OF WALLS, CEILINGS AND FLOORS. THE PRODUCT CONTRIBUTES TO ENERGY SAVINGS AND PREVENTS MOULD AND CONDENSATION, GUARANTEEING LIVING COMFORT.

1. EXISTING WALL IN MASONRY / BLOCK / STONE
2. SPRAY-APPLIED THERMAL INSULATION (DIATHONITE LINE)
3. THERMAL SMOOTHER SKIM COAT
4. DECORK DESIGN





ADVANTAGES OF WALL APPLICATION (INDOOR)



THERMAL PROPERTIES

It maintains a constant wall temperature, guaranteeing comfort in both summer and winter.



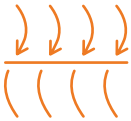
ENERGY SAVINGS

It prevents thermal shock and dispersion, contributing to energy savings.



HEALTHINESS

It prevents the formation of mould and condensation, improving indoor air quality.



BREATHABILITY

The product's porosity allows walls to "breathe" freely.



FUNCTIONALITY

The product combines style and design with protection and wellbeing.





DECORK FAÇADE, THE EVOLUTION OF COLOURED FINISHES

Decork Façade epitomises the evolution of coloured finishes, offering a veritable protective layer that is not only decorative, but actively contributes to thermal insulation, maintains breathability and protects against water. In addition, it prevents the formation of cracks, fissures and spalls, with unwavering durability and stability over time.

Decork Façade draws on Diasen's extensive experience and know-how in the field of cork processing, protection of external facades and energy-saving solutions. The use of cork with selected and controlled grain size results in a sophisticated product that also offers quick and easy application for protecting and decorating any type of facade in an elegant, smart and functional way.

Decork Façade contributes to the thermal insulation of walls and protects facades against absorption of rainwater, thanks also to its excellent adhesion capacity on any type of support - wood, metal, plaster, synthetic materials, cement supports - which makes it an extremely functional and versatile finish.



DECORK FAÇADE PERFORMANCE

Elasticity is one of Decork Façade's standout characteristics. Even though this is a decorative covering, cork gives it an elasticity of 195% and the ability to withstand movements with a crack-bridging ability of 2.5 mm.

Thanks to cork, Decork Façade has a thermal insulation capacity that allows it to contribute to energy savings while allowing walls to breathe.





THERMAL INSULATION

$\lambda = 0.086 \text{ W/mK}$



BREATHABILITY

$\mu = 15$



ELASTICITY

195%



**RESISTANT TO FROST
AND THAW CYCLES**



**RESISTANT TO SEA
SALT**



WEATHERING

1680 hours (10 years)





DECORATION AND RECOVERY OF FACADES

DECORK FAÇADE REPRESENTS THE IDEAL SOLUTION FOR THE DECORATION AND COLOURED FINISH OF NEW FACADES AND FOR THE RECOVERY AND UPGRADE OF EXISTING ONES, THANKS TO ITS OUTSTANDING THERMAL INSULATING, WATERPROOFING AND ELASTIC PROPERTIES WHICH DELIVER EXCELLENT PERFORMANCE ON ANY TYPE OF SUPPORT.

The use of **Decork Façade** as a finishing product in the decoration and recovery of facades completes the Diasen application cycles, in the case of new constructions as well as existing buildings.

1. NEW WALL / EXISTING PLASTER / EXISTING WALL IN MASONRY, BLOCK OR STONE
2. SPRAY-APPLIED THERMAL INSULATION (DIATHONITE LINE)
3. THERMAL SMOOTHER SKIM COAT
4. DECORK FAÇADE



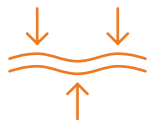


ADVANTAGES OF APPLICATION ON FACADES



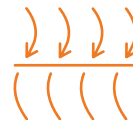
THERMAL PROPERTIES

It maintains a constant wall temperature, guaranteeing comfort in both summer and winter.



ELASTICITY

It prevents the formation of cracks, fissures and spalls



BREATHABILITY

The product's porosity leaves walls free to "breathe"



REFURBISHMENT

Excellent coverage of existing spalls



RESISTANCE

It is resistant to UV rays, the elements and salty environments



ENERGY SAVINGS

It prevents thermal shock, dispersion and overheating





DECORK ALFAREFLEX, THE COMFORT OF SOLAR REFLECTION

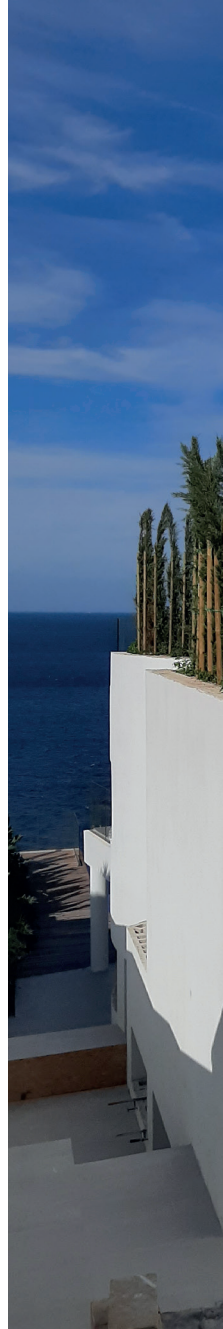
Decork Alfareflex, a white cork-based paint formulated with water-based resins, brings a unique characteristic to the Diasen application system for external facades: the ability to reflect approximately 80% of the sun's rays, increasing thermal insulation.

ONE OF THE KEY PARAMETERS FOR INSULATION FROM HEAT IS **ALFA SOL**, THE SOLAR ABSORPTION COEFFICIENT WHICH DENOTES A **MATERIAL'S CAPACITY TO ABSORB** SOLAR RADIATION FROM THE OUTSIDE.

The lower the alfa sol value, the more reflective the material, in other words the better it is at not absorbing heat from solar radiation and at preventing overheating of the building.

The alfa sol range of values is detailed below:

- **0.9** (high absorption)
- **0.6** (medium absorption)
- **0.3** (low absorption)





DECORK ALFA REFLEX
GUARANTEES A **SOLAR
ABSORPTION COEFFICIENT**
OF **0.2**, DENOTING A HIGHLY
REFLECTIVE PAINT WHICH
DELIVERS EXCELLENT
PERFORMANCE IN TERMS
OF INSULATION FROM HEAT
AND SIGNIFICANT ENERGY
SAVINGS.

DECORK ALFAREFLEX PERFORMANCE

THE TECHNICAL CHARACTERISTICS OF **DECORK ALFAREFLEX** PROVIDE BUILDINGS WITH A HIGH LEVEL OF THERMAL INSULATION, **ENERGY SAVINGS** AND THERMAL COMFORT, WHICH IS PARTICULARLY IMPORTANT IN SUMMER MONTHS, AS WELL AS AN ELASTIC, WATER-REPELLENT FINISH DESIGNED TO **WITHSTAND THE ELEMENTS, INCLUDING THE EROSION ACTION** OF SALT IN COASTAL LOCATIONS.





THERMAL INSULATION

0.086 W/mK

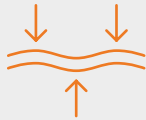
It helps insulate against heat and cold.



SRI

100%

It allows walls exposed to solar radiation to stay cool, guaranteeing comfort and energy savings.



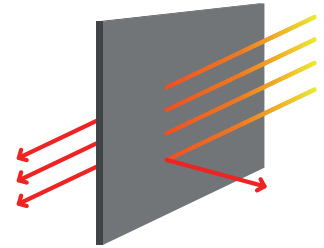
ELASTICITY

It prevents the formation of cracks, fissures and spalls



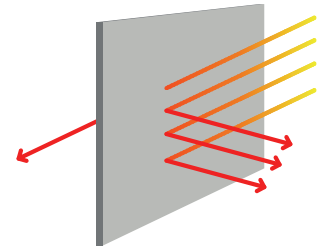
ENERGY SAVINGS

It prevents thermal shock, dispersion and overheating



TRADITIONAL PAINT

Much of the heat produced by solar radiation is absorbed by the facade.



DECORK ALFAREFLEX

The majority of solar radiation is reflected.



APPLICATION ON FACADES

DECORK ALFAREFLEX

REPRESENTS THE IDEAL SOLUTION FOR ACHIEVING A **DECORATIVE WHITE REFLECTIVE FINISH** ON NEW FACADES AND FOR THE RECOVERY AND UPGRADE OF EXISTING FACADES OF BUILDINGS **IN HOT LOCATIONS**. THANKS TO ITS ABILITY TO REFLECT SOLAR RADIATION, DECORK ALFAREFLEX IS A LEADING PRODUCT FOR **"MEDITERRANEAN-STYLE BUILDINGS"**.

1. NEW WALL / EXISTING PLASTER / EXISTING WALL IN MASONRY, BLOCK OR STONE
2. SPRAY-APPLIED THERMAL INSULATION (DIATHONITE LINE)
3. THERMAL SMOOTHER (ARGATHERM)
4. DECORK ALFAREFLEX



2

3

1

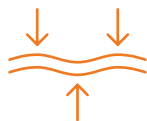
4

ADVANTAGES OF APPLICATION ON FACADES



ENERGY SAVINGS

Conduction and reflection of the sun's rays prevent excessive build-up of heat, favouring energy savings.



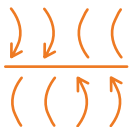
ELASTICITY

The combination of elastic resins and cork give elasticity and resistance to spalling.



EASE OF APPLICATION

The ease of application allows speedy renovation of facades with a high-performance material.



HYGROMETRIC REGULATION

It contributes to the hygrometric regulation of environments, preventing mould and condensation.



RESISTANCE

It is resistant to UV rays, the elements and salty environments



THERMAL COMFORT

It prevents thermal shock, dispersion and overheating





DECORK FOR TROWEL APPLICATION

THE PRODUCTS OF
THE DECORK LINE
CAN BE APPLIED BY
TROWEL, ALLOWING
**QUICK AND EASY
RENOVATION OF
ANY WALL** WHILE
SIMULTANEOUSLY
FILLING ANY
SUPERFICIAL
IMPERFECTIONS.



COVERAGE

When applied by trowel,
used in conjunction with
the Color Primer, the
product fills existing defects
to restore a uniform,
flawless surface.



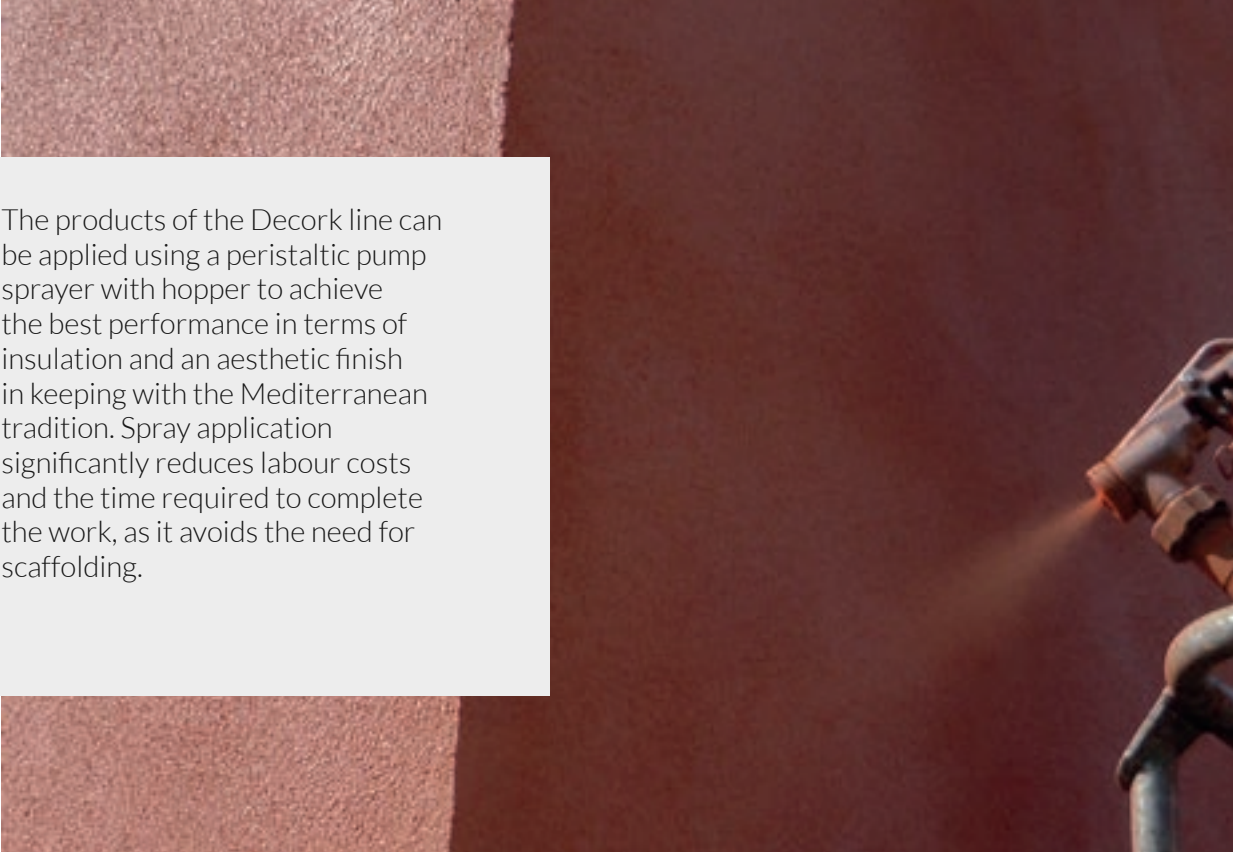
DESIGN

Trowel application makes
it possible to achieve a
uniform, flawless finish
in the traditional style of
Mediterranean buildings.





DECORK FOR SPRAY APPLICATION



The products of the Decork line can be applied using a peristaltic pump sprayer with hopper to achieve the best performance in terms of insulation and an aesthetic finish in keeping with the Mediterranean tradition. Spray application significantly reduces labour costs and the time required to complete the work, as it avoids the need for scaffolding.



DESIGN

Spray application brings out the full beauty of cork, but also the highest level of performance in terms of thermal insulation.



APPLICABILITY

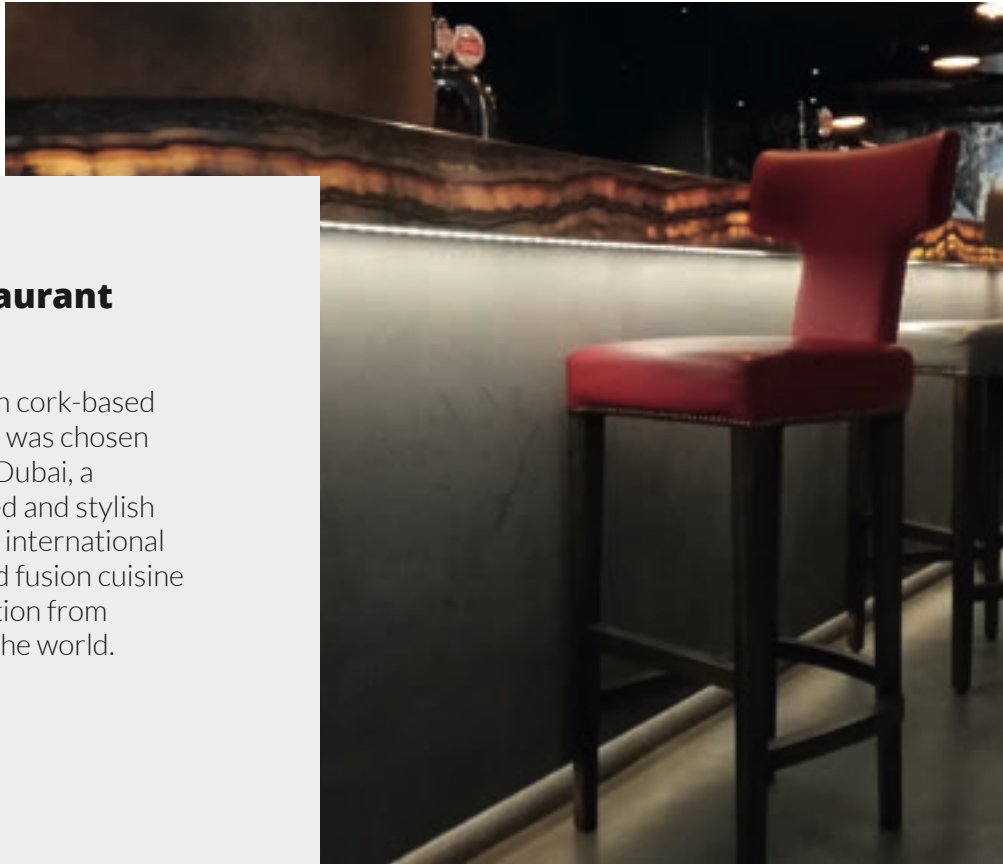
Quick and easy application without the need for scaffolding.

SUCCESSFUL PROJECTS: DECORK DESIGN

Dusty's Restaurant

Dubai, UAE

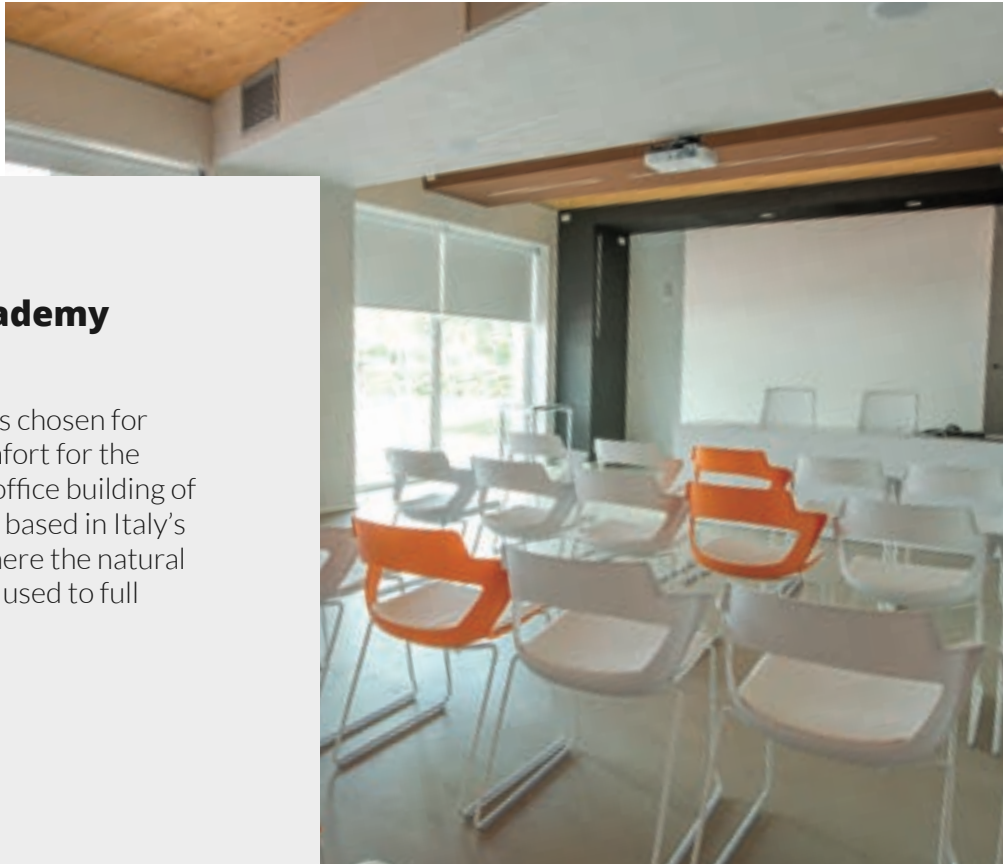
The Decork Design cork-based decorative coating was chosen for Dusty's Bar in Dubai, a highly sophisticated and stylish restaurant with an international design concept and fusion cuisine that draws inspiration from countries around the world.



Company academy

Ancona, Italy

Decork Design was chosen for its beauty and comfort for the renovation of the office building of a leading company based in Italy's Marche region, where the natural colour of cork was used to full advantage.



SUCCESSFUL PROJECTS: DECORK FAÇADE

Data Center Portugal Telecom

Covilhã, Portugal

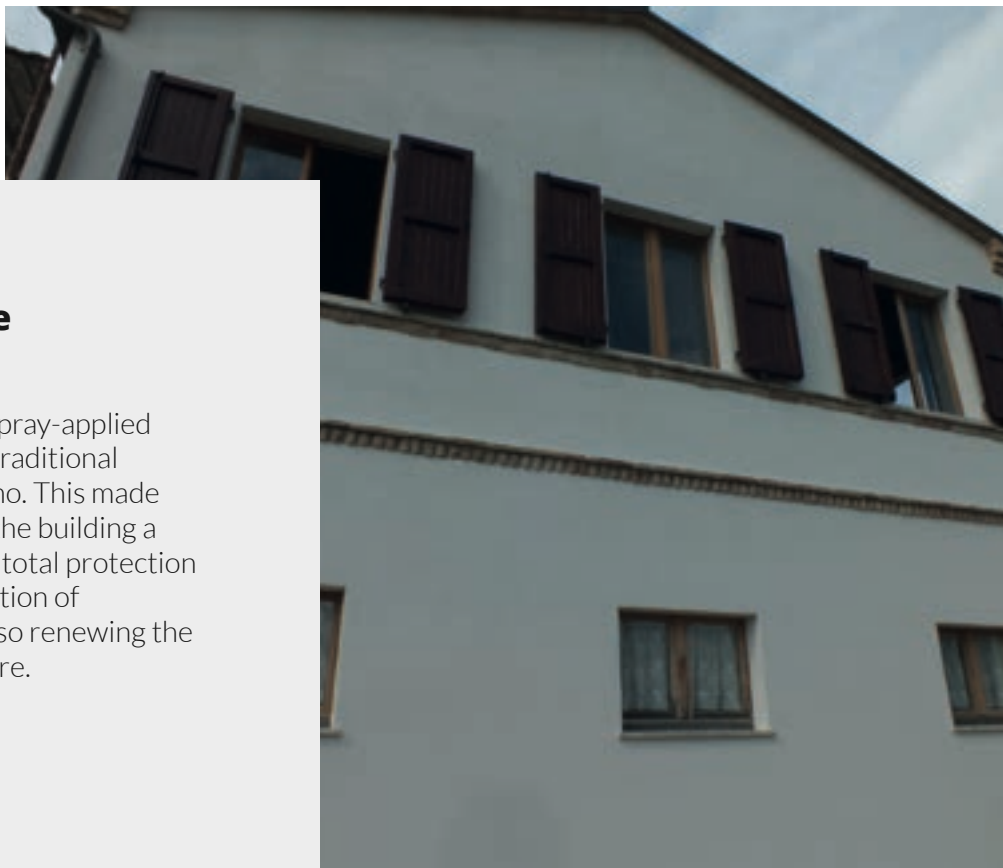
The cork-based product for facades was used as a coating for the Data Center of Portugal Telecom. Designed by the famous Portuguese architect, João Luís Carrilho da Graça, the building was awarded prestigious LEED Platinum certification.



Private home

Osimo, Italy

The product was spray-applied to the facade of a traditional farmhouse in Osimo. This made it possible to give the building a finish coating with total protection against the absorption of rainwater, while also renewing the look of the structure.





SUCCESSFUL PROJECTS: DECORK ALFAREFLEX

Private villa

Malta

The villa was treated with Diathonite plaster and subsequently finished with Decork Alfareflex to achieve low heat absorption most of the year, improving the indoor thermal comfort in summertime in this exclusive Mediterranean location.



Private villa

Cascais, Portugal

The residence was renovated with Diathonite insulating plaster, applied to the stone and brick masonry. Decork Alfareflex was used for the finish to improve the thermal comfort and cooling in a coastal location with high temperatures.



DECORK[®]

CORK BASED COATING



EUROCLASS A1





DIASEN

Sassoferrato, Italy
diasen@diasen.com

DIASEN FRANCE

Sablet, France
france@diasen.com

DIASEN IBÉRICA

7005 -177 Évora, Portugal
iberica@diasen.com

DIASEN SERBIA

Belgrade, Serbia
easterneurope@diasen.com

DIASEN USA

Newnan, GA, 30263
usa@diasen.com

DIASEN ASIA

Singapore
singapore@diasen.com

DIASEN MIDDLE EAST

Sharjah, F.Z.E. - U.A.E.
me@diasen.com

