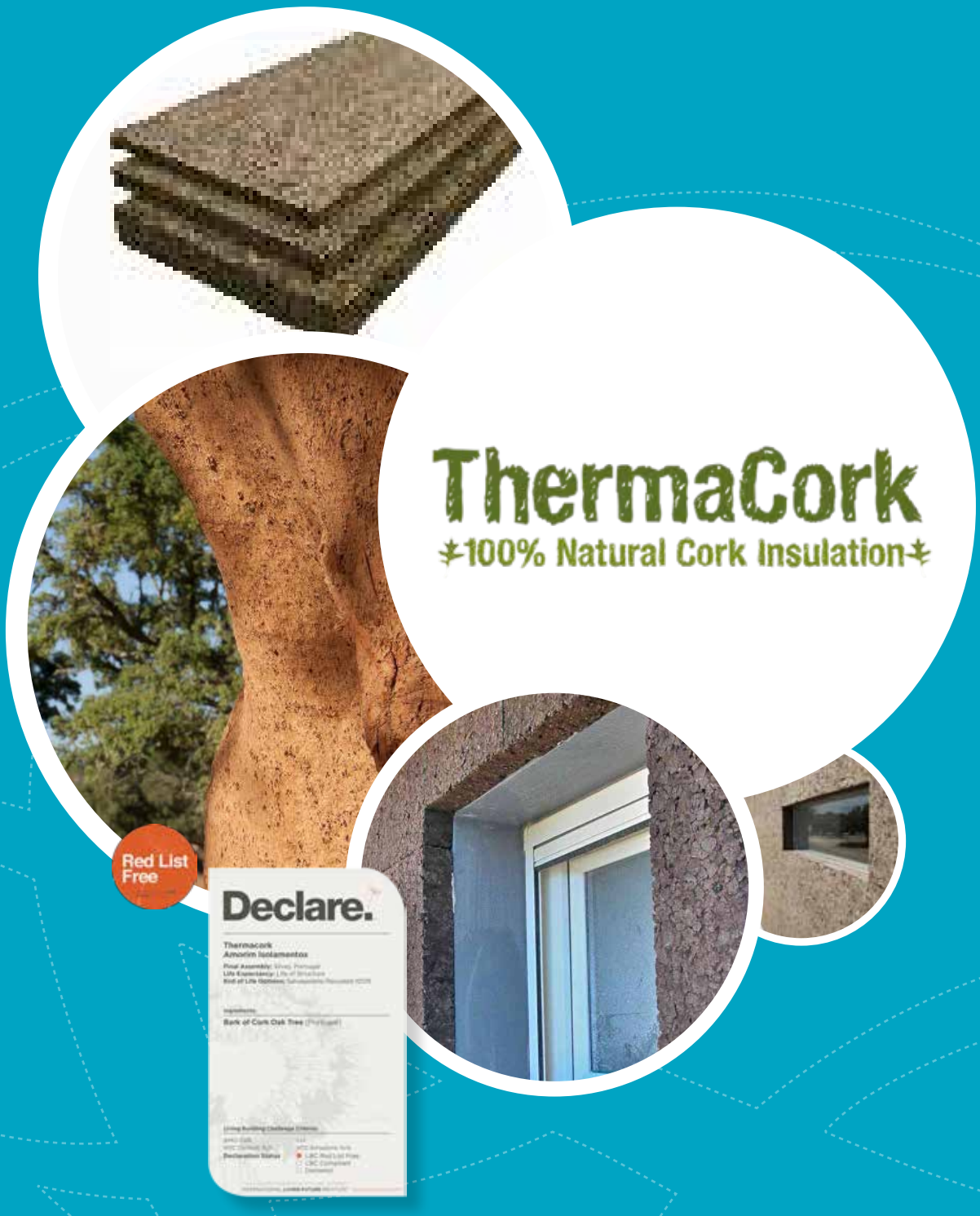
100% Natural cork insulation



Facade grade available
No additives or adhesives
Available in various Thicknesses
Carbon Negative

AMORIM
ISOLAMENTOS

THERMACORK_AISOL_2016_001_US

Amorim Isolamentos

WHO WE ARE

The Insulation Business Unit (Amorim Isolamentos, SA.) is dedicated to the production of insulation agglomerates with excellent technical performance and strictly 100% natural.

Amorim Isolamentos is integrated in Corticeira Amorim and has a strong foothold in the world market, arising from a rigorous commitment to compliance with the quality standards and demands required primarily by the sustainable construction sector.

In 1987 Corticeira Amorim SA, as part of a strategic plan for the Group about insulation cork products, created Expocor, a company of Portuguese-British capital devoted to the production and marketing of expanded insulation cork whose goal was to promote and disseminate a product from which new markets and applications would arise, by customizing the expanded insulation cork, a natural product of unmatched features.

Its history dates back to 1963, having appeared this year as a test tube for the agglomerates industry, proving it is an industry that survives per se.

Amorim Isolamentos appears in 1997 as a business unit Amorim Group, to produce expanded insulation cork and is market leader with brands Amorim (corporate brand), Corkpan (Italian market), Corktherm 040 (Austria, Germany and Switzerland), Corkisol (France) and Thermacork (USA).

In order to achieve certification and total quality, Amorim Isolamentos is a company seeking high levels of quality and productivity, where the protection of the environment and the preservation of natural resources are a constant, clearly demonstrating its position in the community in which it operates.

The origin of the material

The Expanded Insulation Corkboard was born of an accident.

In the year 1891 and the U.S. already imported large quantities of cork for the manufacture of many materials: cork stoppers, buoys, life jackets, and other materials. It was exactly in New York in a buoys and life jackets factory of John T. Smith that the recklessness took place ... At that time, the filling of lifejackets was done using a metal cylinder which allowed to keep the lifejacket open while the worker filled the cylinder with granulated cork. One of the cylinders was clogged and set apart and inadvertently rolled a brazier going unnoticed until the next morning.

The next day, Smith with the help of a worker while cleaning the ash from the brazier noticed that the cork inside the cylinder had not been burned, and the heat was sufficient to bind the entire mass in a single form-brown chocolate.

The original process was repeated intentionally to be able to prove that the material could bind without any additive foreign substances to cork and thus registering a patent on the manufacturing process.

WHY SHOULD WE USE CORK IN CONSTRUCTION

Why Cork

Cork is the outer bark of Quercus Suber L. (cork oak tree)

A noble tree that can live up to 200 years, during which time it may be harvested 15 to 18 times

The process of natural cork extraction is called stripping, a highly specialized process that does not harm the tree

The bark renews itself

Favourable impact on cork forests:

Total area 2.1 million hectares (5.2 million acres) of cork oak forests.

The cork tree produces cork every nine years (a renewable raw material).

Cork forests improve soil's organic matter and help regulate the hydrological cycle

Provides local employment in the forestry sector hence prevent population desertification.

Important in maintaining biodiversity (unique in Europe) - One of the 35 Biodiversity Hotspots.

Cork oak forests are natural CO2 retainers (Up to 14 million tons of CO2/year), the major cause of global warming

100% natural industrial process:

Only cork as a raw material.

No additives ... agglomeration with its own resins (suberin).

93% of energy consumption is biomass (waste of its own industrial process).

The waste from the industrial process is 100% reusable (expanded cork granules + powder).

Natural Sustainability

www.thermacork.com
www.amorimisolamentos.com

Practically unchanging lambda (thermal value) on temperature variations

Compared to other insulation products with declining performance values, Thermacork maintains a steady insulation value over time

Energy e:f.ficient solution (lambda + thermal inertia) Thermal parameters calculation as function of lambda operating temperatures

Conduct evolution for insulation materiais:
ICB --------- vs. EPS - - - - -

In general:

High level of stability ... coping with rnajor therrnal variations.

Deals with ternperatures of between: -292 F and 248F (-180C and +120C).

In case of fire, cork does not release toxic gases.

Unlirnited durability, rnaintaining its technical characteristics (official tests dernonstrate between 45 and 50 years).

ThermaCork

100% Natural Cork Insulation

AMORIM
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QUEST FOR EXCELLENCE AND INNOVATION

Amorim Isolamentos is recognized by the constant search of excellence and innovation and has the support of and accreditation by the relevant authorities.

Certificate ISO 9001 – APCER / IQNET

FSC Certificate

Sustainable Habitat Cluster
Gold Seal of Sustainability

Product quality control according to EN 13170 and consequent CE marking

NATUREPLUS
The International Association for Future-Oriented Building and Accommodation (Germany) - The label identifies the best products for sustainable building.

ACERMI
Association Pour La Certification Des Matériaux Isolants (France) - certifies specific insulation materials, assessing their technical performance;

ICEA
Instituto per la Certificazione Etica e Ambientale (Italy) certification of environmental and ethical aspects of products;

ARGE kdR Positivlisten (Germany)
Certifies energy consumption throughout the life cycle, resource depletion and emissions of materials;

MPA
Materials Testing Institute University of Stuttgart (Germany) - certification of construction materials in terms of their suitability and production process in accordance with existing standard;

LQAI
Laboratory of Indoor Air Quality (Portugal)
Certifies the non-emissions of VOCs, formaldehyde and other compounds for the product;

LBC
International Living Future Institute's Living Building Challenge (USA) - the label certifies Living Building Challenge Red List Free products

PCS
Portuguese Platform for Sustainable Construction (Portugal) – Certificate of Product Sustainability

Ecologic Certification
Japan Environment Association (Japan)
Certifies the environmental impacts of products;

TECHNICAL CHARACTERISTICS

Technical characteristics:

Density: 100/120Kg/m3

Thermal conductivity: test results range between 0.036/0.038 W/mk

Value declared for EU

Label: o.040W/mk

Resistance to compression at 100/o: declared 100 Kpa (test results 110/120 Kpa) - EN 826

Perpendicular face resistance: declared TR50 (test results 60 Kpa) - EN 16_07

Levei of humidity: maximum 8% - EN 1215

Water absorption: declared o.s Kg/m2 (maximum test result 0.3 kg /m2)- EN 1609

Longitude tolerance: between +/- 3 y 5mm - EN 822

Thickness tolerance: between +/- 1 y 2 mm - EN 823

Fire resistance: Euro clase "E" - EN 13501 - 1. > Durability: practically unlimited

Recyclable: 1 o 0%

MANUFACTURING PROCESS. 100% NATURAL

FOREST

HARVEST

MECHANICAL AND MANUAL CORK REMOVAL ("FALQUEJAMENTO")

STOCK

GRINDING

AUTOCLAVE AGGLOMERATION

STABILIZATION

SQUARING AND CUTTING

PACKING AND EXPEDITION

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ThermaCork

100% Natural Cork Insulation

PRODUCTS

On the market with brands Amorim (corporate brand), Corkpan (Italian market), Corktherm 040 (Austria, Germany and Switzerland), Corkisol (France) and Thermacork (USA).

EXPANDED INSULATION CORKBOARD
Solution with high performance in thermal, acoustic and anti-vibration insulation, especially suitable for use in external, internal and cavity walls; slabs; flat and pitched roofs and radiant floor.

MDFACADE
Special range of Expanded Insulation Corkboard with high technical performance for exterior wall cladding. Interior walls and ceilings – cork at sight.

LAMBOURDE
Quick application system designed for low thickness insulation solutions and buildings renovations. For mechanical fixing to the floor or wall, ensuring excellent thermal and acoustic insulation and subsequent a wood finish or plasterboard.

EXPANDED CORK GRANULES
Solution of lightweight filling with acoustic insulation properties for use in screeds, flooring and interior cavity walls

CORKOCO
Solution that uses two natural products with unique characteristics, cork and coconut, ensuring high performance acoustic insulation. It is especially suited for application in ceilings, walls and floors.

COCO
Natural solution of the family of the hard fibers with unmatched stiffness and hardness. It is a versatile product given its strength durability and resilience that ensures high performance in sound insulation.

FIND THE IDEAL SOLUTION BY APPLICATION AREA

THERMAL INSULATION
ACOUSTIC INSULATION
ANTI-VIBRATION INSULATION

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AMORIM
ISOLAMENTOS

APPLICATIONS
ROOFS

THERMAL INSULATION
ACOUSTIC INSULATION
ANTI-VIBRATION INSULATION

AMORIM
ISOLAMENTOS

PITCHED ROOF WITH INTERNAL ISULATION BETWEEN RAFTERS

PITCHED ROOF WITH ABOVE RAFTER INSULATION

PITCHED ROOF WITH CORRUGATED ROOFING SYSTEM

PITCHED ROOF WITH ROOF MEMBRANE

PITCHED ROOF WITH RIGID INSULATION OVER SLAB

PITCHED ROOF WITH LOOSE FILL INSULATION BETWEEN JOISTS

FLAT TAPERED ROOF

GREEN ROOF

TRADITIONAL FLAT ROOF

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100% NATURAL CHOICE

EXPANDED INSULATION CORKBOARD IS A SUSTAINABLE MATERIAL FOR A SUSTAINABLE INSULATION

APPLICATIONS
EXTERNAL WALLS

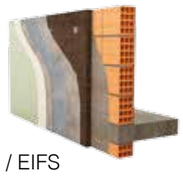
THERMAL INSULATION
ACOUSTIC INSULATION
ANTI-VIBRATION INSULATION

AMORIM
ISOLAMENTOS

STANDARD LAP SIDING WITH EXTERIOR RIGID INSULATION

STANDARD LAP SIDING WITH CAVITY INSULATION

EXTERIOR CLADDING OVER WOODEN SUBSTRATE – CORK AT SIGHT



ETICS / EIFS

DOUBLE WALL WITH INSULATION PARTIALLY FILLING THE CAVITY

VENTILATED FAÇADE

EXTERIOR CLADDING - CORK AT SIGHT

EXTERIOR CLADDING WITH SHIPLAP SYSTEM - CORK AT SIGHT

EXTERIOR CLADDING - CORK AT SIGHT WAVE FACADE S

INTERNAL SOLUTIONS FOR EXTERNAL WALLS

SUPPORT FOR GYPSUM BOARD

SUPPORT FOR WOODEN WAINSCOT

INTERNAL INSULATION FOR EXTERNAL WALLS

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APPLICATIONS
INTERNAL PARTITIONS

THERMAL INSULATION
ACOUSTIC INSULATION
ANTI-VIBRATION INSULATION

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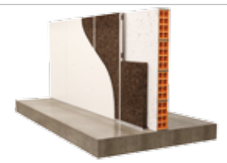
INTERNAL PARTITIONS WITH INSULATION LINED ON BOTH SIDES

DOUBLE WALL WITH INSULATION FULLY FILLING THE CAVITY



METAL STUD OVER MASONRY WALL WITH INSULATION

METAL STUD OVER MASONRY WALL WITH CORKOCO INSULATION

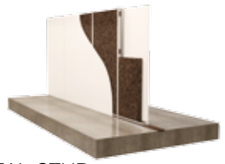
METAL STUD PARTITION WALL WITH INSULATION

DECORATIVE BOARD CORK AT SIGHT

DECORATIVE CORK AT SIGHT WAVE S

DECORATIVE CORK AT SIGHT WAVE L

FILLING THE INTERNAL DOUBLE WALLS WITH EXPANDED CORK GRANULES



METAL-STUD WALL AND SLAB DISCONTINUITY

MASONRY WALL AND SLAB DISCONTINUITY

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APPLICATIONS
SLAB AND FLOORS

THERMAL INSULATION
ACOUSTIC INSULATION
ANTI-VIBRATION INSULATION

AMORIM
ISOLAMENTOS

FLOATING SLAB
WITH WOOD FLOORING

FLOATING SLAB
WITH MOSAIC FLOORING

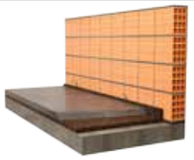
FLOATING SLAB
WITH COCO FIBER

SUPPORT FOR
NAILED FLOORING

FLOORING
JOISTS CAVITY FILLING

BETWEEN JOISTS
LOOSE FILL

LIGHTWEIGHT CONCRETE
- SCREED FILLING



UNLINKING SCREED
FILLER TO THE WALL

TRADITIONAL
UNDERFLOOR HEATING

ELECTRIC
UNDERFLOOR HEATING

RESILIENCE ON NAILED
HARDWOOD FLOOR OVER
COCONUT FIBER

RUSTIC
DECORATIVE FLOOR

100% NATURAL CHOICE

EXPANDED INSULATION CORKBOARD IS A SUSTAINABLE MATERIAL FOR A SUSTAINABLE INSULATION

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APPLICATIONS
CEILING + OTHER APPLICATIONS

THERMAL INSULATION
ACOUSTIC INSULATION
ANTI-VIBRATION INSULATION

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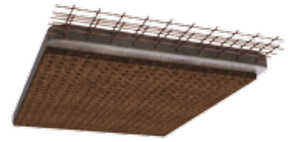
FORMWORK INSULATION

ACOUSTIC FALSE CEILING



DECORATIVE CEILING

EXPANSION JOINTS

PIPE SECTION

HVAC VIBRATION CONTROL

HEAVY MACHINERY VIBRATION CONTROL

DOOR CORE INSULATION

DECOUPLING LAYER FOR WINDOW FRAMES AND CORE

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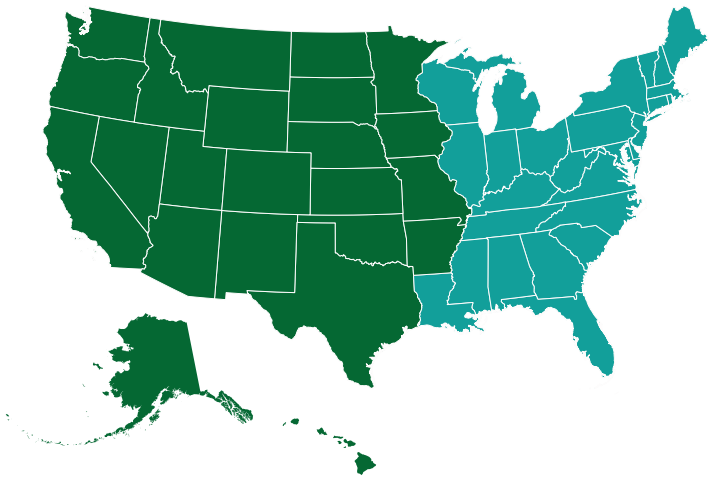
ThermaCork

100% Natural Cork Insulation



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