

# GYPCORK BOARD

Sustainable Solution



# Gypcork Board

The GYPCORK board brings together two Portuguese products of excellence: Gyptec plasterboard produce in Figueira da Foz, using ecological raw materials and clean methods, and expanded cork agglomerate, an excellent thermal and acoustic insulation produce by Amorim Isolamentos, using a 100% natural process with no waste.

## GYPSUM BOARD + ICB

Gyptec gypsum boards are made up of two sheets of paper with high-quality gypsum in the middle. The cork board is 100% natural and an eco-friendly product comprising of expanded cork agglomerate (ICB).

The final product, internally developed by Gyptec Ibérica, meets the requirements of standard EN-14190.

## GYPCORK SOLUTION

Reference	ICB 13-20	ICB 13-40	ICB 13-60
Thickness ( ± 0,5 mm)	32,5	52,5	72,5
Width (± 12 mm)	1200	1200	1200
Length (± 12 mm)	2000/2500	2000/2500	2000/2500
Weight (± 5% kg/m <sup>2</sup> )	9,2	11,3	13,5
Flexural strength Long./Tran. (N)>	550/210	550/210	550/210
Thermal resistance (m <sup>2</sup> .K/W)	0,57	1,07	1,57



**NEW THICKNESS**  
Now with moisture resistant gypsum board

- Compliance: Type A (EN 520) / Type H1 (EN 520)
- Face paper colour: Ivory/ Green
- Water vapour resistance (μ): 10 (EN 12524)
- Reaction to fire: A2-s1, d0
- Longitudinal edge: Tapered (TE)
- Depth: 1,5 mm [0,6-2,5 mm]
- Width: 60 mm [40-80 mm]
- Transverse: Square (SE)
- Thermal conductivity ICB: 0,040 W/m.K



GYPTEC BA 13 A 20

# HIGH THERMAL AND ACOUSTIC PERFORMANCE FOR INDOOR APPLICATION



## WALLS AND CEILINGS LINING

Is one of the most practical and efficient ways to refurbish existing buildings, or as a root solution for new projects.

Which system to recommend depends on the conditions of the wall and the intended insulation. Gyptec boards (simple or insulated) can be directly fixed with GA adhesive glue, or applied with a metal support structure.

## APPLICATION WITH PROFILES

Screw auxiliary profiles onto the wall for fastening of the boards. In order to ensure the correct execution of the entire system, we recommend the use of Gyptec accessories.



Apply the omega profiles vertically or horizontally, with a maximum spacing of 60 cm between each profile. Horizontal profiles may be applied in the top and bottom areas to facilitate the application of cornices and baseboards.

## AVANTAGES

- ✓ Enhanced mechanical support
- ✓ Easy installation of pipes and ducts
- ✓ Better fastening on degraded walls

## APPLICATION WITH GLUE

GYPCORK boards are directly glued to the wall. We recommend the use of Gyptec GA adhesive glue.

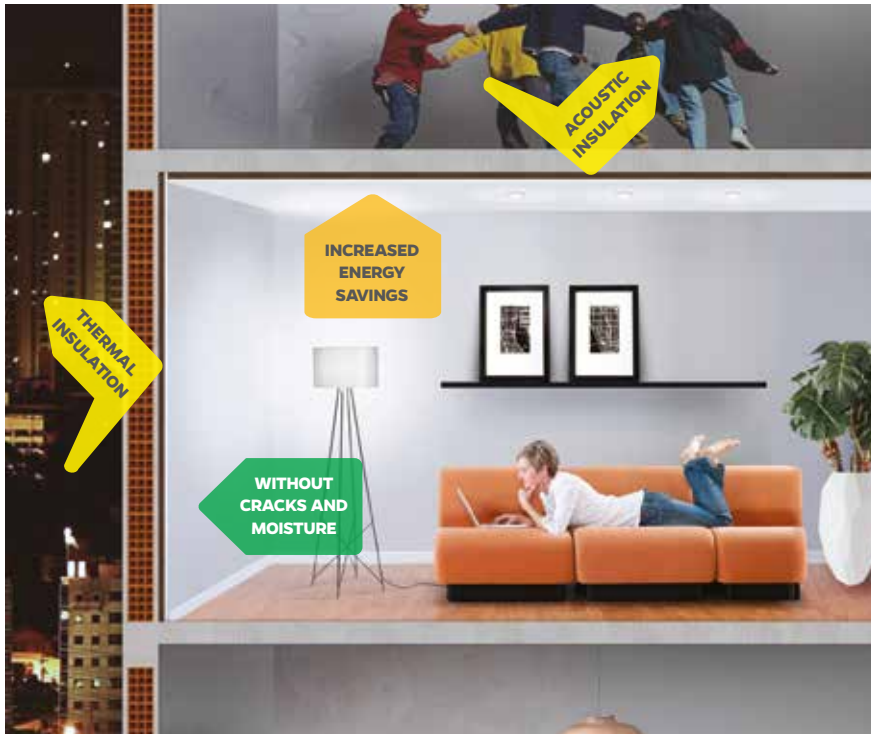


Apply the glue points 40 cm away from each other, while reinforcing the perimeter of each board. Depending on the consumption may vary between 2.5 and 5 kg/m<sup>2</sup>.

## AVANTAGES

- ✓ Versatile in its application
- ✓ Ideal for uneven surfaces

# SUSTAINABLE CONSTRUCTION AND REHABILITATION



## ENERGY EFFICIENCY

Increased energy efficiency is the vital key to the growth strategy of the construction sector.

There is a large number of degraded buildings without the minimum living conditions. It is urgent to promote their renovation associated with insulation and to invest in comfortable buildings, but with low energy consumption.

In this context, due to its adaptability, easy application and good performance, interior insulation is highly recommended as a quite competitive and efficient solution.

## BETTING ON SUSTAINABILITY

The development of this product aims to respond to the growing demand for solutions that incorporate sustainable materials and contribute towards greater acoustic, thermal and energy efficiency of existing buildings as well as new buildings.

The GYPCORK is a product with low incorporated energy, a high proportion of by-products from renewable materials and from other industries which contribute to CO<sup>2</sup> absorption.

This multilayer solution, results from a study that Gyptec Ibérica developed with the Research and Technological Development Institute for Construction Sciences (ITeCons), as part of a R&TD Valley.



## ADVANTAGES

- ✓ Ideal for renovations
- ✓ Uses sustainable materials
- ✓ Increases indoor comfort and contributes to energy savings
- ✓ Ensures wall permeability (it is a system that breathes)
- ✓ Long-lasting system with quick and easy application
- ✓ Supports all kinds of coatings (paint, wallpaper or tiles)

# Walls

Single wall with ceramic brick 22

Cavity walls with ceramic brick 11 + 15

## THERMAL PERFORMANCE ( Heat transfer coeicient U)

Base wall:  $U = 1,29 \text{ W/m}^2 \cdot \text{°C}$   
 With GYPCORK:  $U = 0,55 \text{ W/m}^2 \cdot \text{°C}$

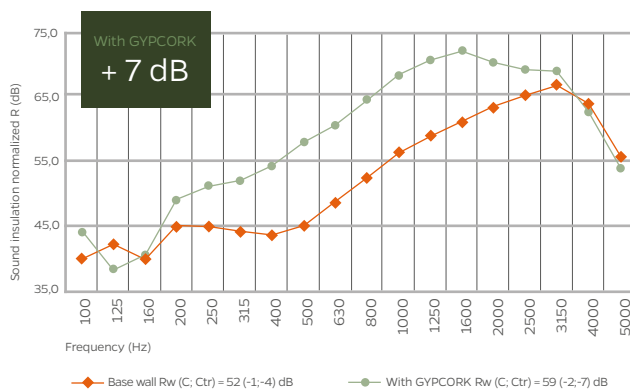
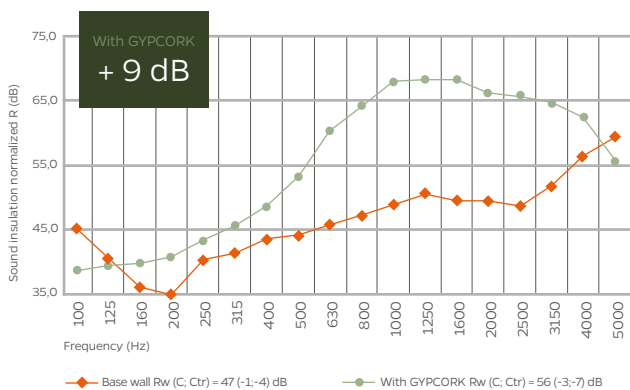
With GYPCORK  
**DOUBLES  
 INSULATION**

Base wall:  $U = 0,92 \text{ W/m}^2 \cdot \text{°C}$   
 With GYPCORK:  $U = 0,47 \text{ W/m}^2 \cdot \text{°C}$

## ACOUSTIC PERFORMANCE (Indication of airborne insulation Rw)

Base wall:  $R_w = 47 \text{ dB}$   
 With GYPCORK:  $R_w = 56 \text{ dB}$

Base wall:  $R_w = 52 \text{ dB}$   
 With GYPCORK:  $R_w = 59 \text{ dB}$



ITeCons tests - Laboratory measurement of airborne sound insulation,  $R_w$ , (standards NP EN 10140-2 and ISO 717-1). ICB 40mm.

# Ceilings

Lightweight voided slab

Lightweight voided slab

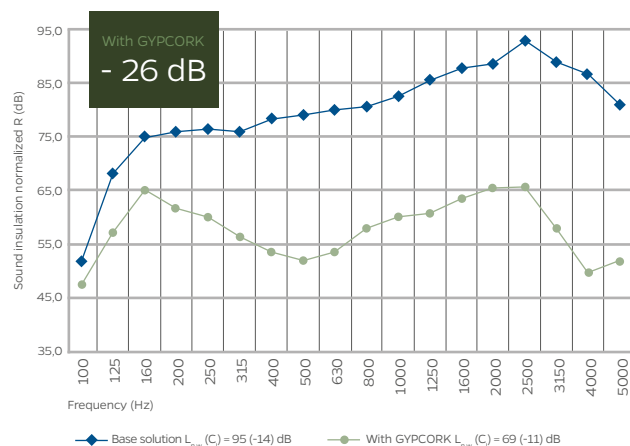
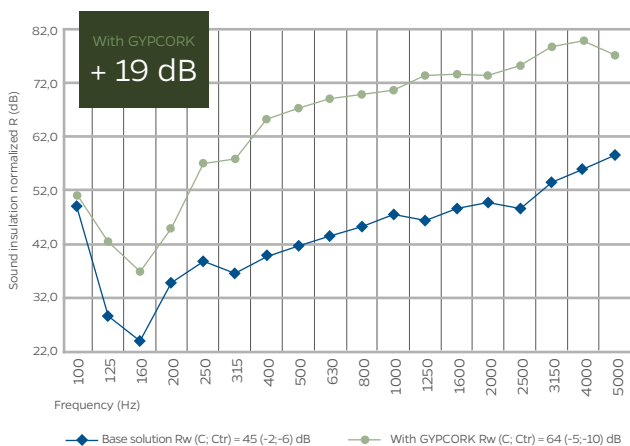
## ACOUSTIC PERFORMANCE

AIRBONE NOISE  $R_w$

IMPACT NOISE  $L_{n,w}$

Base solution:  $R_w = 45 \text{ dB}$   
 With GYPCORK:  $R_w = 64 \text{ dB}$

Base solution:  $L_{n,w} = 95 \text{ dB}$   
 With GYPCORK:  $L_{n,w} = 69 \text{ dB}$



ITeCons tests - Laboratory measurement of airborne sound insulation,  $R_w$ , (standards NP EN 10140-2 and ISO 717-1). ICB 40mm.

ITeCons tests - Laboratory measurement of impact sound insulation,  $L_{n,w}$ , (standards ISO 10140-3 and ISO 717-2). ICB 40mm.

## PROVEN QUALITY

The characteristics of the materials are tested regularly which promotes the evaluation of quality parameters, providing the consumer the best solutions.



### GYPTEC GYPTEC

All products with the brand name or name GypTec ensure quality and technical perfection in the various applications they are intended for, and are periodically subjected to rigorous testing and trials. Through constant innovation and continuous improvement in products and production methods, the company remains true to its vision of becoming a brand name and reference in this market.

#### Main features of the product:

- Acoustic insulation;
- Low thermal conductivity;
- Moisture regulator;
- Incombustible and effective fire barrier;
- Durable and impact resistant;
- Versatile and supports all kinds of coatings;
- Recyclable.

### EXPANDED CORK AGGLOMERATE

The Expanded Cork Agglomerate (ICB - Insulation Cork Board) is a 100% ecological and recyclable product. It is made from the outer bark of the cork oak tree without damaging the tree itself. The tree regenerates new layers of cork after harvesting, making it extremely sustainable. When the cork is subject to a thermal process, a resin, "Suberina" is released, which acts as a natural binding agent.

#### Main features of the product:

- Thermal conductivity of 0,036 to 0,040 W/m.oC;
- Excelent acoustic insulation;
- Natural and ecological insulation;
- Excellent fire behavior / does not release toxic gases;
- Recyclable;
- Not susceptible to rodent attack.



FIND MORE



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