



ACOUSTIC  
**silentcork**

**EXPANDED  
INSULATION  
CORKBOARD**

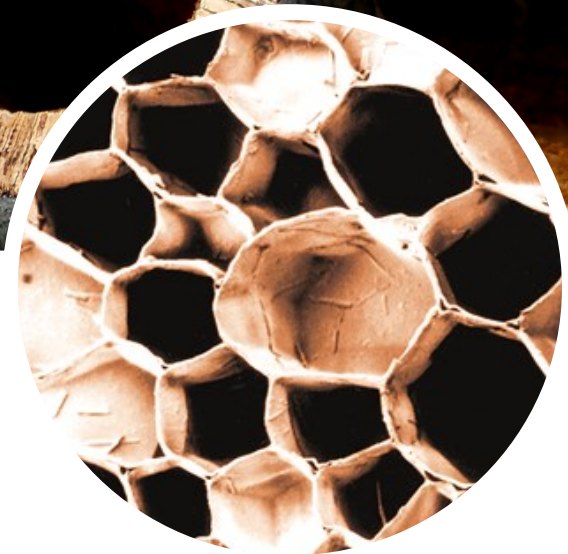




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Cork is harvested from the renewable bark of the cork oak tree and is a 100% natural product. The trees are not damaged or felled during the harvest – this ecological products, meets the requirements to protect and conserve the environment.

The great cork's secret is in the mixing of gases, which is similar to the air that fills each cell, and in the percentage of suberin contained in its walls.

Suberin is kind of a natural wax that surrounds every cell's wall, blocking the air and giving it impermeability and many other features.

The huge amount of gases in each cell is responsible for the extraordinary lightness, compressibility and elasticity of cork.

Cork can be compressed to half of its size, without losing any flexibility.



## Acoustic Insulation & Noise Reduction

To reduce the sound level of repercussion caused by the impact on floors from people moving around, the movement of furniture or falling objects transmitted to the floor immediately below (which constitute a considerable nuisance in the light buildings) it will be necessary to introduce a flexible element—CORKBOARD—between the floor covering and the concrete slab.

This system serves also to reduce the sound level and the transmission of airborne noises.

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.

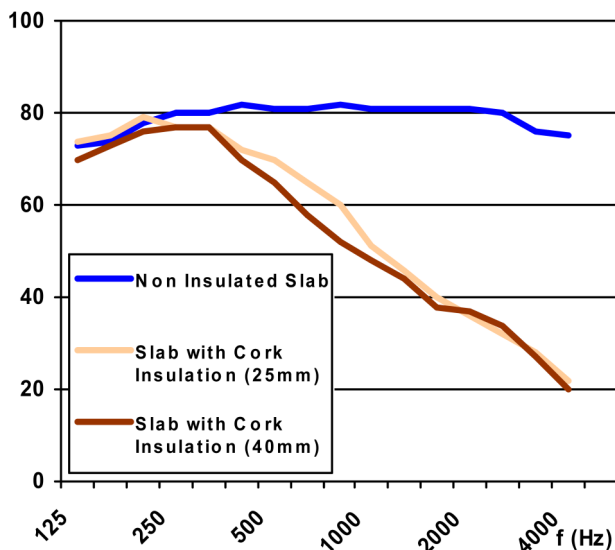


## Corkboard in the Acoustic Insulation

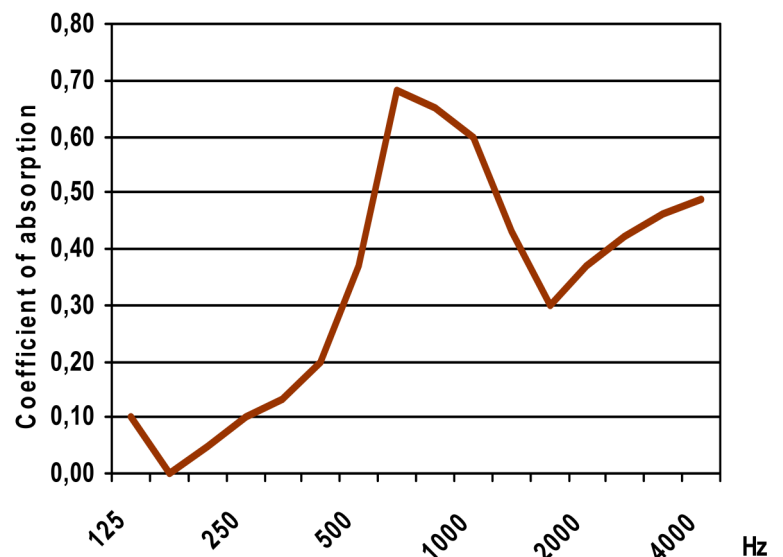
Indicated for the acoustic correction of a determined ambient, CORKBOARD reduces sound levels to achieve sound absorption and acoustic treatment in theaters, concert halls, school, meeting halls and other places where it is desired to reduce the time of reverberation.

Covering the ceiling of a room with CORKBOARD is enough to considerably improve its acoustic conditions.

REDUCTION OF THE REPERCUSSION NOISES SOUND LEVELS



ACOUSTIC ABSORPTION—25MM THICKNESS



# Roof Applications



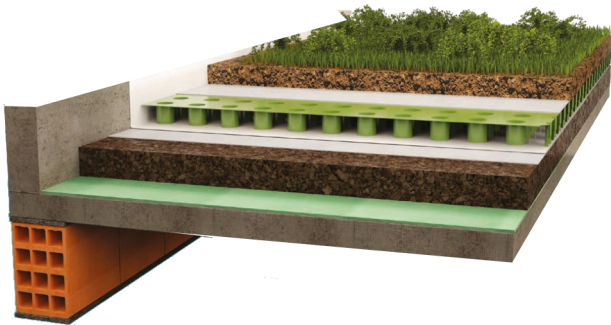
Thermal and Acoustic Insulation of pitched roofs with Insulation Corkboard above slab. Ideal for non-visible attics.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320 mm



Thermal and Acoustic Insulation of flat roofs, visible or not, with Insulation Corkboard.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320 mm



Thermal and Acoustic Insulation of green roofs, visible or not, with Insulation Corkboard.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320 mm



Thermal and Acoustic Insulation of roofs with Insulation Corkboard above rafters.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320 mm



Thermal and Acoustic Insulation of pitched roofs with Insulation Corkboard between rafters.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320 mm



Thermal and Acoustic Insulation of pitched roofs with Insulation Corkboard between slab and roof.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320 mm



## Roof Applications



Thermal and Acoustic Insulation of green roofs, visible or not, with Insulation Corkboard.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320 mm



Thermal and Acoustic Insulation of flat roofs, visible or not, with tapered Insulation Corkboard. The tapered cork gives the necessary slope for a proper drainage.

**PRODUCT DIMENSIONS:** 1000 x 500 mm

THICKESSES FOR A 1:60 fall:

- A: 20/37 mm
- B: 37/54 mm
- C: 54/70 mm
- A1: 70/87 mm
- B1: 87/104 mm
- C1: 104/120 mm

### TECHNICAL FEATURES

DENSITY	THERMAL CONDUCTIVITY	COMPRESSION RESISTANCE (10%)	OPTIMAL BEHAVIOUR IN LARGE TEMPERATURE RANGE	FIRE RESISTANCE
110-120 kg/m <sup>3</sup>	0.037 to 0.040 W/m°C	≥100 kPa	-180°C to 120°C	Euro classe E

### ADVANTAGES

Excellent performance at thermal and acoustic insulation | Excellent mechanical resistance | Excellent System Inertia | Dimensional stability of the material | High durability without loss of features | Healthier natural product | Comfort with healthy insulation | Excellent breathability | Allows energy saving | Long term effectiveness.



Thermal insulation for underfloor electrical heating systems using Insulation Corkboard and still promoting sound insulation.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 20 mm

DENSITY	THERMAL CONDUCTIVITY	COMPRESSION RESISTANCE (10%)	OPTIMAL BEHAVIOUR IN LARGE TEMPERATURE RANGE
140-160 kg/m <sup>3</sup>	0.040 to 0.042 W/m°C	≥100 kPa	-180°C to 120°C



Thermal insulation for underfloor heating systems and hot water tubes using Insulation Corkboard and still promoting sound insulation.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320 mm

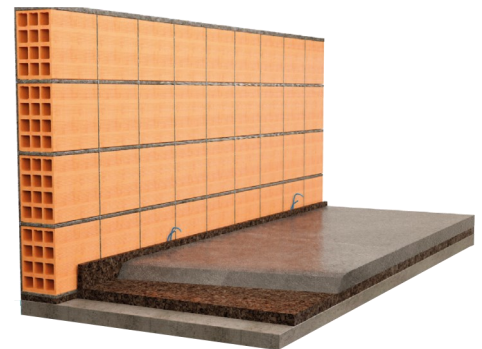
DENSITY	THERMAL CONDUCTIVITY	COMPRESSION RESISTANCE (10%)	FIRE RESISTANCE
110-120 kg/m <sup>3</sup>	0.037 to 0.040 W/m°C	≥100 kPa	Euroclasse E



Thermal and acoustic percussion noise insulation with Insulation Corkboard acting simultaneously as insulation against percussion noises and reducing thermal losses.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320 mm

IMPACT SOUND INSULATION	DENSITY	THERMAL CONDUCTIVITY	FIRE RESISTANCE
19 dB	110-120 kg/m <sup>3</sup>	0.037 to 0.040 W/m°C	Euroclasse E



Unlinking screed filler to the wall with Insulation Corkboard acting simultaneously as insulation against percussion noises and reducing vibrations.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 mm

DENSITY	FLEXURAL STRENGTH	COMPRESSION RESISTANCE (10%)	RECOMENDED PRESSURE
110-120 kg/m <sup>3</sup>	≥ 130 KPa	≥ 100 KPa	0.25 kg/cm <sup>2</sup>
LIMIT OF ELASTICITY	THERMAL CONDUCTIVITY		
1x10 <sup>4</sup> kg/m <sup>2</sup>	0.037 to 0.040 W/m°C		





Thermal and acoustic percussion noise insulation with Insulation Corkboard acting simultaneously as insulation against percussion noises and reducing thermal losses.

Thermal and acoustic percussion noise insulation with Insulation Corkboard acting simultaneously as insulation against percussion noises and reducing thermal losses.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320 mm

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DENSITY	THERMAL CONDUCTIVITY	COMPRESSION RESISTANCE (10%)	FIRE RESISTANCE
110-120 kg/m <sup>3</sup>	0.037 to 0.040 W/m°C	≥100 kPa	Euroclass E

IMPACT SOUND INSULATION	DENSITY	THERMAL CONDUCTIVITY	FIRE RESISTANCE
19 dB	110-120 kg/m <sup>3</sup>	0.037 to 0.040 W/m°C	Euroclasse E

### IMPACT NOISE INSULATION:

- A) Slab 140mm, Insulation Corkboard 20mm Floating Slab 50mm: 21dB
- B) Slab 140mm, Insulation Corkboard 50mm Floating Slab 50mm: 22 dB
- C) Slab 140mm, Insulation Corkboard 20mm Floating Slab 70mm: 22 dB
- D) Slab 140mm, Insulation Corkboard 50mm Floating Slab 70mm: 25 dB

### IMPACT NOISE INSULATION:

- A) Slab 140mm, Insulation Corkboard 20mm Floating Slab 50mm: 21dB
- B) Slab 140mm, Insulation Corkboard 50mm Floating Slab 50mm: 22 dB
- C) Slab 140mm, Insulation Corkboard 20mm Floating Slab 70mm: 22 dB
- D) Slab 140mm, Insulation Corkboard 50mm Floating Slab 70mm: 25 dB

## ADVANTAGES

Excellent performance at thermal and acoustic insulation | Excellent mechanical resistance | Excellent System Inertia | Dimensional stability of the material | High durability without loss of features | Healthier natural product | Comfort with healthy insulation | Excellent breathability | Allows energy saving | Long term effectiveness.

# Internal Wall Applications



Thermal and acoustic insulation of double internal walls with Insulation Corkboard, fully filling the cavity.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320mm

AIRBORNE SOUND INSULATION INDEX	DENSITY	THERMAL CONDUCTIVITY	FIRE RESISTANCE
Rw(C;Ctr) = 53(-1;-4) dB	110-120 kg/m <sup>3</sup>	0.037 to 0.040 W/m°C	Euroclasse E



Thermal and acoustic insulation of metal stud walls with Insulation Corkboard, fully filling the cavity.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320mm

DENSITY	THERMAL CONDUCTIVITY	COMPRESSION RESISTANCE (10%)	FIRE RESISTANCE
110-120 kg/m <sup>3</sup>	0.037 to 0.040 W/m°C	≥ 100 kPa	Euroclasse E



Support the metal-stud partitions with Insulation Corkboard to disconnect these from the slab to the building structure, promoting sound insulation and reducing vibration transmission.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10mm

DENSITY	FLEXURAL STRENGTH	COMPRESSION RESISTANCE (10%)	RECOMENDED PRESSURE
110-120 kg/m <sup>3</sup>	≥ 130 KPa	≥ 100 KPa	0.25 kg/cm <sup>2</sup>
LIMIT OF ELASTICITY	THERMAL CONDUCTIVITY		
1x10kg/m <sup>2</sup>	0.037 to 0.040 W/m°C		



Thermal and acoustic insulation of metal stud wall with Insulation Corkboards, fully filling the cavity. Traditional external wall renovation system.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320mm

AIRBORNE SOUND INSULATION	DENSITY	THERMAL CONDUCTIVITY	COMPRESSION RESISTANCE (10%)
56 dB	110-120 kg/m <sup>3</sup>	0.037 to 0.040 W/m°C	≥ 100 KPa
FIRE RESISTANCE			
Euroclasse E			



# Internal Wall Applications



Support the masonry wall partitions with Insulation Corkboard to disconnect these from the slab to the building structure, promoting sound insulation and reducing vibration transmission.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10mm

DENSITY	FLEXURAL STRENGTH	COMPRESSION RESISTANCE (10%)	RECOMMENDED PRESSURE	LIMIT OF ELASTICITY
110-120 kg/m <sup>3</sup>	≥ 130 KPa	≥ 100 kPa	0.25 kg/cm <sup>2</sup>	1x10 <sup>4</sup> kg/m <sup>2</sup>
THERMAL CONDUCTIVITY				
0.037 to 0.040 W/m°C				



Acoustic Insulation against airborne sound inside with lined Insulation Corkboard.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320mm

AIRBORNE SOUND INSULATION	DENSITY	THERMAL CONDUCTIVITY	BENDING RESISTANCE
R <sub>w</sub> = 50 dB	110-120 kg/m <sup>3</sup>	0.037 to 0.040 W/m°C	≥ 1.8x10 <sup>4</sup> kg/m <sup>2</sup>
COMPRESSION RESISTANCE (10%)	FIRE RESISTANCE		
≥ 100 KPa	Euroclass E		

## ADVANTAGES

Excellent performance at thermal and acoustic insulation | Excellent mechanical resistance | Excellent System Inertia | Dimensional stability of the material | High durability without loss of features | Healthier natural product | Comfort with healthy insulation | Excellent breathability | Allows energy saving | Long term effectiveness.

# External Wall Applications



Thermal and acoustic insulation of double exterior walls with Insulation Corkboard, partially filling the cavity.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320mm

DENSITY	THERMAL CONDUCTIVITY	BEINDING RESISTANCE	COMPRESSION RESISTANCE (10%)
110-120 kg/m <sup>3</sup>	0.037 to 0.040 W/m <sup>2</sup> °C	≥ 1.8x10 <sup>4</sup> kg/m <sup>2</sup>	≥ 100 KPa
FIRE RESISTANCE	AIRBORNE SOUN INSULATION	OPTIMAL BEHAVIOUR IN LARGE TEMPERATURE RANGE	
Euroclass E	Rw = 53 dB	-180°C to 120°C	



Thermal and acoustic insulation of exterior walls with Insulation Corkboard by the outside of wall.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320mm

DENSITY	THERMAL CONDUCTIVITY	PERPENDICULAR FACE RESISTANCE	COMPRESSION RESISTANCE (10%)
110-120 kg/m <sup>3</sup>	0.037 to 0.040 W/m <sup>2</sup> °C	Declared TR50 (Test results: 60 KPa)	≥ 100 KPa
FIRE RESISTANCE	MOISTURE FACTOR RESISTANCE	OPTIMAL BEHAVIOUR IN LARGE TEMPERATURE RANGE	
Euroclass E	MU 20	-180°C to 120°C	



Thermal and acoustic insulation of exterior walls with Insulation Corkboard by the outside of wall.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320mm

DENSITY	THERMAL CONDUCTIVITY	PERPENDICULAR FACE RESISTANCE	COMPRESSION RESISTANCE (10%)
110-120 kg/m <sup>3</sup>	0.037 to 0.040 W/m <sup>2</sup> °C	Declared TR50 (Test results: 60 KPa)	≥ 100 KPa
FIRE RESISTANCE	MOISTURE FACTOR RESISTANCE	OPTIMAL BEHAVIOUR IN LARGE TEMPERATURE RANGE	
Euroclass E	MU 20	-180°C to 120°C	



Thermal and acoustic insulation of exterior walls lined with Insulation Corkboard by the inside of wall.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320mm

DENSITY	THERMAL CONDUCTIVITY	BEINDING RESISTANCE	COMPRESSION RESISTANCE (10%)
110-120 kg/m <sup>3</sup>	0.037 to 0.040 W/m <sup>2</sup> °C	≥ 1.8x10 <sup>6</sup> kg/m <sup>2</sup>	≥ 100 KPa
FIRE RESISTANCE	AIRBORNE SOUN INSULATION	OPTIMAL BEHAVIOUR IN LARGE TEMPERATURE RANGE	
Euroclass E	Rw = 53 dB	-180°C to 120°C	

**PERPENDICULAR FACE RESISTANCE**

Declared TR50 (Test results: 60 KPa)



Thermal and acoustic insulation of exterior wall with Insulation Corkboard by the outside of wall - External Thermal Insulation System.

**PRODUCT DIMENSIONS:** 1000 x 500 x 10 to 320mm

DENSITY	THERMAL CONDUCTIVITY	BEINDING RESISTANCE	COMPRESSION RESISTANCE (10%)
110-120 kg/m <sup>3</sup>	0.037 to 0.040 W/m°C	≥ 1.8x10 <sup>6</sup> kg/m <sup>2</sup>	≥ 100 KPa
SYSTEM FIRE RESISTANCE	MOISTURE FACTOR RESISTANCE	OPTIMAL BEHAVIOUR IN LARGE TEMPERATURE RANGE	
Euroclass B	MU 20	-180°C to 120°C	
FIRE RESISTANT	PERPENDICULAR FACE RESISTANCE		
Euroclass E	Declared TR50 (Test results: 60 KPa)		

## ADVANTAGES

Excellent performance at thermal and acoustic insulation | Excellent mechanical resistance | Excellent System Inertia | Dimensional stability of the material | High durability without loss of features | Healthier natural product | Comfort with healthy insulation | Excellent breathability | Allows energy saving | Long term effectiveness.





Reduce or eliminate the transmission of vibrations and consequent noise to the building in which it is installed and the neighboring buildings.

**PRODUCT DIMENSIONS:**

Standard: 1000 x 500 x 10 to 320mm

HD: 170/190 Kg/m<sup>3</sup>: 1000 x 500 x 25; 50; 75; 100mm



Reduce or eliminate the transmission of vibrations and consequent noise to the building in which is installed and the neighboring buildings.

**PRODUCT DIMENSIONS:**

Standard: 1000 x 500 x 10 to 320mm

HD: 170/190 Kg/m<sup>3</sup>: 1000 x 500 x 25; 50; 75; 100mm

DENSITY	THERMAL CONDUCTIVITY	HIGH DENSITY	THERMAL CONDUCTIVITY	OPTIMAL BEHAVIOUR IN LARGE TEMPERATURE RANGE	FIRE RESISTANCE
110-120 kg/m <sup>3</sup>	0.037 to 0.040 W/m°C	170-190 kg/m <sup>3</sup>	0.043 W/m°C	-180°C to 120°C	Euroclass E

COMPRESSION		Weight per unit area (Kg/m <sup>2</sup> )						
DENSITY	THICKNESS (mm)	2000	5000	10000	15000	20000	25000	30000
		Deformation (mm)						
110/120	25	0.3	0.5	1.1	2.1	-	-	-
	50	0.5	1.1	2.2	4.3	-	-	-
140/160	25	0.3	0.5	0.9	1.4	2.0	-	-
	50	0.5	0.9	1.7	2.7	4.1	-	-
170/190	25	0.2	0.3	0.6	0.8	1.1	1.4	1.9
	50	0.4	0.7	1.1	1.6	2.2	2.9	3.9









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