ACOUSTIBOARD

ACOUSTIC FLOOR PANELS FOR ALL TYPES OF STRUCTURES WITH OR WITHOUT CONCRETE

RESISTOSOUND SOUNDPROOFING PRODUCT LINE

ADVANTAGES

- Suitable for new construction projects or renovations
- Fast and easy to install
- No special tools
- Can be used with all types of structures:
  - Wood structures WITH OR WITHOUT CONCRETE
  - Structural concrete slabs
  - Hambro® floor system
  - Steel structures
  - Mill floor structures
- Eliminates the need for concrete over wood structures, thereby reducing the weight of the structure by more than 97 kg/m² (20 lbs/sf) and the height of the subfloor by over 38 mm (1½ in). It also puts an end to all of the headaches involved in pouring concrete.

The ACOUSTIBOARD panel is a revolutionary product that eliminates the need for the 38 mm (1 1/2 in) concrete covering that is usually poured over wood structures, while also providing excellent acoustic performance. This means that installation is easier, quicker and cheaper. At only 8 mm (3/8 in) thick, ACOUSTIBOARD is easy to install on other types of structures as well, as it generally needs only to be laid in place.

A solution from

RESISTO SOUND®

Soundproofing products

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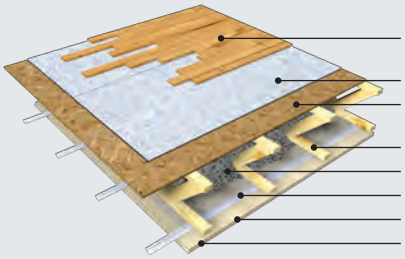
PRODUCT CHARACTERISTICS

Thickness: Approximately 8 mm (3/8 in)
Dimensions: 0.91 m x 1.22 m (36 in x 48 in)
Weight: Approximately 8 kg/m² (1.7 lbs/sf)
Thermal Performance (R value): 0.50

SOUND TESTING

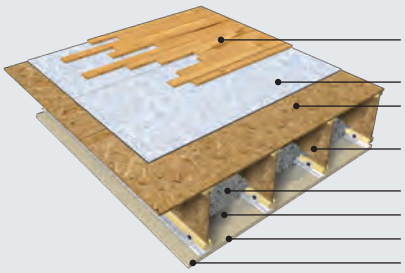
A) Wood structures without concrete



ACB01

- Floated engineered wood flooring 19 mm (3/4 in)
- **ACOUSTIBOARD**
- High-density composite panel 16 mm (5/8 in)
- Open joists
- Cellulose fibre 250 mm (10 in)
- Resilient channels
- Gypsum board 16 mm (5/8 in) type X
- Gypsum board 16 mm (5/8 in) type X

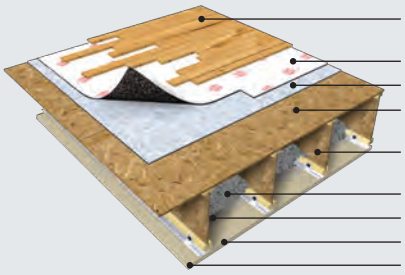
Properties*: FIIC 61 FSTC 60
Note : Test performed on-site on a complete floor.



ACB02

- Laminated composite flooring 12.3 mm (1/2 in)
- **ACOUSTIBOARD**
- High-density composite panel 16 mm (5/8 in)
- "I" joists 350 mm (14 in) at 400 mm (16 in) c/c
- Cellulose fibre 250 mm (10 in)
- **ACOUSTIVIBE**
- Gypsum board 16 mm (5/8 in) type X
- Gypsum board 16 mm (5/8 in) type X

Properties*: FIIC 64 FSTC 59
Note : Test performed on-site on a complete floor.

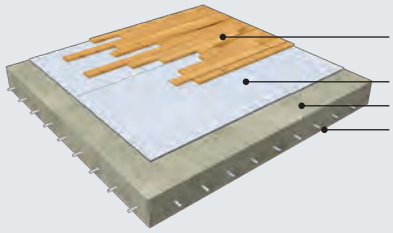


ACB03

- Laminated composite flooring 12.3 mm (1/2 in)
- **INSONOFLOOR**
- **ACOUSTIBOARD**
- High-density composite panel 16 mm (5/8 in)
- "I" joists 350 mm (14 in) at 400 mm (16 in) c/c
- Cellulose fibre 250 mm (10 in)
- **ACOUSTIVIBE**
- Gypsum board 16 mm (5/8 in) type X
- Gypsum board 16 mm (5/8 in) type X

Properties*: FIIC 70 FSTC 59
Note : Test performed on-site on a complete floor.

B) Structural slab 200 mm (8 in)

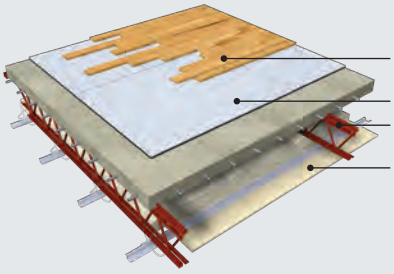


ACB04

- Laminated composite flooring 12 mm (1/2 in)
- **ACOUSTIBOARD**
- Concrete slab 200 mm (8 in)
- Stucco finish

Properties*: FIIC 65 FSTC Not measured
Note : Test performed on-site on a floor sample (0.6 m x 0.9 m or 2 ft x 3 ft).

C) Hambro® floor system



ACB05

- Floated engineered wood flooring 19 mm (3/4 in)
- **ACOUSTIBOARD**
- Hambro® floor system with approximately 100 mm (4 in) of concrete
- Suspended ceiling with mineral wool and one layer of gypsum board 16 mm (5/8 in)

Properties*: FIIC 66 FSTC 60
Note : Test performed on-site on a floor sample (0.6 m x 0.9 m or 2 ft x 3 ft).
Hambro® is a product of Canam

FIIC: *Field Impact Insulation Class*
Tests in compliance with the ASTM E007-11 and ASTM E989-11 standards
FSTC: *Field Sound Transmission Class*
Tests in compliance with the ASTM E336-11 and ASTM E413 standards

* FIIC and FSTC results are presented for information purposes only.
Equivalent performance cannot be guaranteed by Resisto and Soprema.

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ROBINSON TESTS

The Robinson Floor Test measures the mechanical resistance of a ceramic tile assembly.

It indicates the number of cycles completed before the ceramic tile or joints break. The maximum number of cycles is 14. Each cycle is categorized as a service level based on the performance of the assembly. Note that cycle 4 is for residential use.

Assembly #1

- Ceramic tiles 13 in x 13 in, grade 4 and grout with sand (3 mm or 1/8 in joints)
- Cement-glue
- Two layers of plywood 12 mm (½ in) glued together with carpenter's glue and then screwed through the ACOUSTIBOARD to the deck with #8 x 2 ½ in floor screws every 150 mm (6 in) in both directions*.
- ACOUSTIBOARD
- Plywood 16 mm (5/8 in) glued and screwed to joists every 150 mm (6 in)
- 16 in c/c wood joists

Results: Cycle 7; Light commercial
(office space, reception areas, kitchens, bathrooms)

* As an alternative, the 2 plywoods assembly could be glued on the ACOUSTIBOARD with performant adhesive and the ACOUSTIBOARD glued to the plywood 16 mm (5/8 in) as well.

Assembly #2

- Ceramic tiles 12 in x 12 in, grade 5 and grout with sand (3 mm or 1/8 in joints)
- Cement-glue
- Cement board 12 mm (½ in) glued to ACOUSTIBOARD
- ACOUSTIBOARD glued to concrete with SikaBond-T35
- Concrete slab 50 mm (2 in)

Results: Cycle 13; Heavy service
(shopping malls, stores, commercial kitchens, work areas, laboratories, auto showrooms and service areas, shipping/receiving, exterior decks)

Assembly #3

- 12 x12 x 5/16 in ceramic tile and grout with sand (3/16 in joints)
- Hydroment Ditra-Set mixed with water
- Ditra Membrane
- Hydroment Ditra-Set mixed with water
- ACOUSTIBOARD glued to the wood deck *
- 3/4 in high density OSB panel screwed and glued to joists
- 19.2 in c/c wood joists

Results: Cycle 7; Light commercial
(office space, reception areas, kitchens, bathrooms)

* Please consult the table of adhesives.

FIRE TEST

CAN/ULC S101-7 Standard Methods of Fire Endurance Tests of Building Construction and Materials

Results: Over 60 minutes

Details of the assembly:
(The test is valid no matter what is added above the ACOUSTIBOARD)

- ACOUSTIBOARD
- OSB 16 mm (5/8 in) screwed and glued
- Open or wood "I" joists 9 ½ in or deeper, or 2 in x 10 in wood beams; maximum 24 in c/c
- Cellulose or fiberglass insulation or no insulation at all
- Polyethylene film (for cellulose only)
- ACOUSTIVIBE System (clips + ACOUSTIVIBE metal furrings)
- Gypsum board 16 mm (5/8 in) type X
- Gypsum board 16 mm (5/8 in) type X

V.O.C. RELEASE

Using Headspace Gas Chromatography–Mass Spectrometry (HS-GC-MS).

Results: 0% Volatile Organic Compounds detected

SURFACE PREPARATION

WOOD

Make sure the surface is free from any debris, such as nails, screws or any other construction rubbish that may damage the product once the floor finish is applied on the product.

Generally, a good cleaning is enough to prepare the surface. Also make sure that there are no gaps between the two floor support panels. If necessary, fill those gaps with acoustic sealant.

CONCRETE

The same preparation as for the wood deck should be performed, but since this product is a vapour barrier, you must also make sure that the concrete deck does not have a moisture rate so high that the product traps the moisture in the concrete.

A maximum moisture content of 3 lb/1,000 ft^2/24 h (1.46 kg/100 m^2/24 h) is recommended. This reading can also be taken with a calcium chloride test.

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INSTALLATION METHOD

ACOUSTIBOARD should always be installed with the rubber granules facing down, towards the deck.

Mechanically fix the four corners and the centre if needed using staples or large-head nails to ensure that the panel is flat; otherwise, simply lay out the ACOUSTIBOARD. The panels must be installed so that the joints are offset. Leave a space of about 1/8 inch at the perimeter between the Acoustiboard and walls, and fill it with acoustic sealant.

LAMINATED COMPOSITE and ENGINEERED WOOD

- The finished wood flooring is placed on top of the panels.
- A minimum thickness of 10 mm is recommended for laminated composite.
- Engineered wood could also be glued to the ACOUSTIBOARD panels using high-performance adhesives. In this case, the ACOUSTIBOARD must also be glued to the deck (see the list of recommended adhesives).

NAILED HARDWOOD FLOORING

- One panel of high-density OSB 5/8 inch thick, not tongue and groove, is placed over the ACOUSTIBOARD panel, and the hardwood flooring is then nailed to this panel without the nails reaching the structure. It is recommended that a space of approximately 1/8 inch be left between the OSB panels to prevent the floor from squeaking.

CERAMIC TILES

- Two plywood panels ½ inch thick are glued and screwed together above the ACOUSTIBOARD panels. Moreover, this assembly must be adequately fixed to the deck through the ACOUSTIBOARD to ensure mechanical stability under the ceramic tiles.
- Because ceramic surfaces are generally not very big, this will not significantly impact the soundproofing of the floor as a whole.
- Another option is to use a ½ inch thick cement panel in place of the two layers of plywood. In this case, the cement board panel joints must be coated with cement-glue and set before installing the ceramic tiles.
- To avoid altering the acoustic performance, the ACOUSTIBOARD can also be glued to the deck before gluing the two layers of plywood or the layer of cement board to the ACOUSTIBOARD.

IMPORTANT NOTE: ALWAYS STORE ACOUSTIBOARD PANELS IN A DRY PLACE PRIOR TO INSTALLATION.

WARRANTY

RESISTOSOUND products are guaranteed against all manufacturing defects and to be suitable for all stated uses. SOPREMA's liability under this garantee is limited to replacing or refunding the purchase price of RESISTOSOUND products found to be defective.

PEACE OF MIND
RELAXING
COMFORT
PEACEFUL HOME

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