

PRO10

Material Data Sheet

AMORIM
CORK
COMPOSITES



Material Description & Properties

100% Agglomerated Cork underlay for impact noise and thermal insulation.

KEY FEATURES

- 100% natural, reusable and recyclable.
- Excellent acoustic performance.
- Excellent thermal resistance capacity.
- Flexible and adaptable.
- High durability.
- High performance with reduced thickness.
- U mark certified according with Deutsches Institut für Bautechnik: DIBt.

Tested according to MMFA/EPLF higher requirements group 1 and 2.

STANDARD DIMENSIONS

| | |
|----------------------|--------|
| Thickness (mm) | 2 |
| Width and Length (m) | 1 x 15 |

| TEST | LIMIT | UNIT | RESULT |
|------------------------------|-----------|---------------------|-----------|
| Density | — | kg/m ³ | 220 – 280 |
| Punctual Conformability (PC) | ≥ 0.5 | mm | ≥ 1.3 |
| Compression Strength (CS) | ≥ 400 | kPa | 470 |
| Compression Creep (CC) | ≥ 35 | kPa | 50 |
| Impact Sound (IS) | ≥ 18 | dB | 19 |
| Thermal Resistance (R)* | ≥ 0.15 | m ² °C/W | 0.039 |
| Dynamic Load (DL) | ≥ 100 000 | cycles | ≥ 100 000 |

* Suitable for underfloor heating and cooling.

PHYSICAL AND MECHANICAL PROPERTIES

| | |
|--------------------------------------|-----------------------------|
| Specific Weight ⁽¹⁾ | 220 – 280 Kg/m ³ |
| Tensile Strength ⁽¹⁾ | ≥ 200 KPa |
| Compression at 0.7MPa ⁽¹⁾ | 20 – 45% |
| Recovery after 0.7MPa ⁽¹⁾ | ≥ 70% |

⁽¹⁾ ISO 7322

THERMAL PROPERTIES

| | |
|----------------------|---|
| Thermal Conductivity | 0.0516 W/m ² °C ⁽¹⁾ |
| Thermal Resistance | 0.0388 m ² °C/W ⁽¹⁾ |

⁽¹⁾ ISO 8301

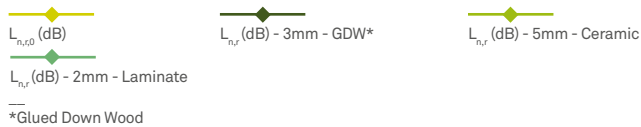
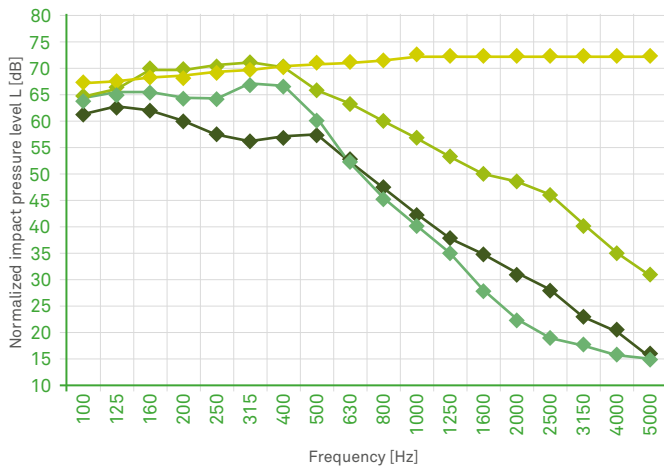
ACOUSTICAL RESULTS

Test procedure according to ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010 and ISO 717-2:2013 standards.

| | |
|----------------------------|----------|
| Thickness | 2 mm |
| Flooring | Laminate |
| $\Delta L_w(C_{1,\Delta})$ | 19 dB |

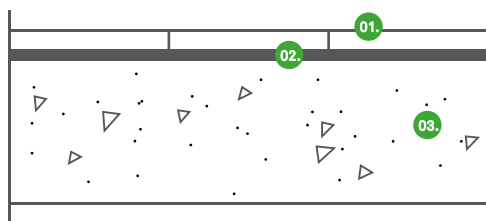
| | |
|----------------------------|-----------------|
| Thickness | 3 mm |
| Flooring | Glued down wood |
| $\Delta L_w(C_{1,\Delta})$ | 26 dB |

| | |
|----------------------------|---------|
| Thickness | 5 mm |
| Flooring | Ceramic |
| $\Delta L_w(C_{1,\Delta})$ | 16 dB |



$L_{n,r}$ - Normalized impact sound pressure level of the reference floor with the floor covering under test;
 $L_{n,r,0}$ - Normalized impact sound pressure level of the Lab reference floor;
 ΔL_w - Impact sound pressure level reduction index of the covering under test, on a normalized floor;

TEST APPARATUS (ΔL_w)



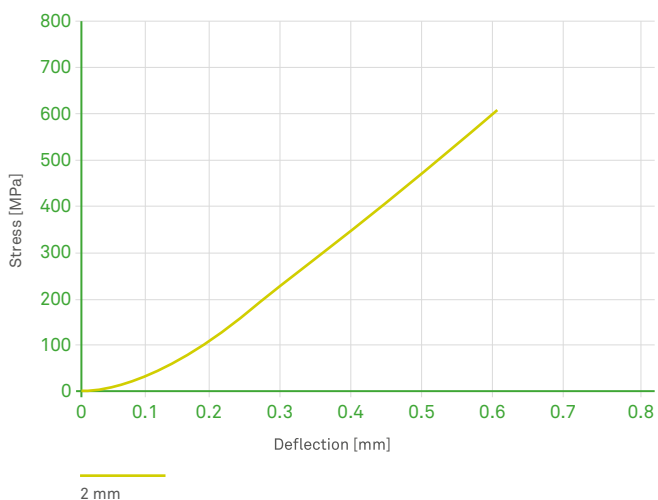
01. Floor covering composed by glued down wood, non glued laminate floor or ceramic or natural stone tiles

02. Agglomerated cork resilient layer - PRO 10

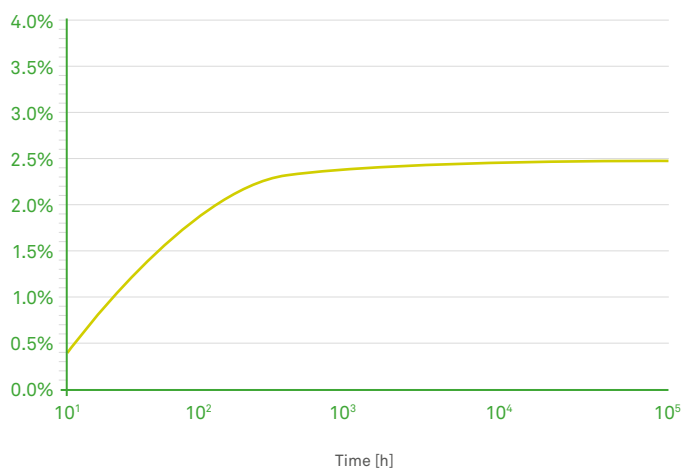
03. Reinforced concrete slab of thickness 140mm

PHYSICAL AND MECHANICAL PROPERTIES

COMPRESSIVE STRENGTH



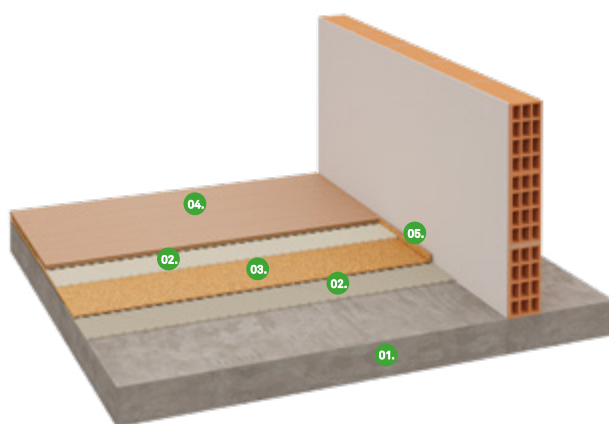
CREEP DEFLECTION @ 50 kPa (% OF START HEIGHT)



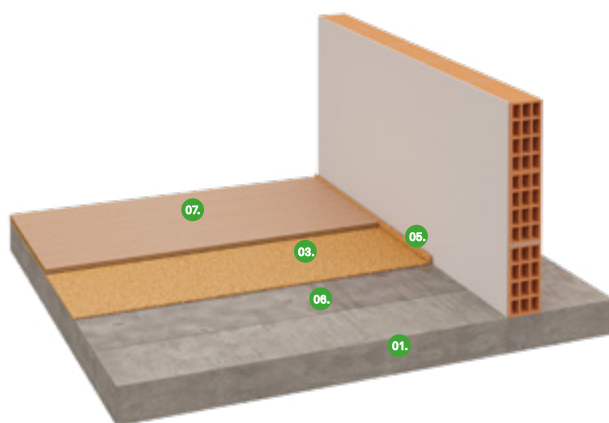
Note: Following ISO8013-1998 measured in Cantilever Test System

INSTALLATION

GLUED FLOORS



NON GLUED FLOORS



- 01.** Reinforced concrete slab
- 02.** Adhesive
- 03.** Agglomerated cork resilient layer - PRO 10
- 04.** Floor covering composed by glued down wood, ceramic or nature stone
- 05.** Perimeter insulation barrier
- 06.** Vapor barrier
- 07.** Floor covering composed by non glued laminate floor

GENERAL INSTALLATION INSTRUCTIONS

The following installation instructions are recommended by Amorim Cork Composites, but are not intended as a definitive project specification. They are presented in an attempt to be used with recommended installation procedures of the flooring manufacturers.

Room Conditions

Temperature > 10°C / Room moisture content < 75%.

Subfloor

All subfloor work should be structurally sound, clear and level. The moisture content of the subfloor should not be more than 2.5% (CM) by weight measured on concrete subfloors.

Vapor Insulation Barrier (only for Non Glued Floors)

PE (Polyethylene) vapor insulation barrier covering the entire flooring area, minimum 50mm wide vertically around the perimeter of the entire floor MUST be installed prior to the Amorim PRO 10.

Install by overlapping (minimum 100mm) the PE foil, and use an adequate tape to adhere/fix it, if necessary. After completion, PE foil should cover the entire concrete area without gaps. Never mechanically fasten the PE foil barrier with screws, nails or staples as this will severely diminish the performance of the insulation barrier.

Installation Instruction for Amorim PRO 10

Unpack the Amorim PRO 10 at least 24h before the installation and store it in the room where the installation will take place. Cut the Amorim PRO 10 to desired length and install directly over the entire floor pulled 30mm up the walls with crown of the rolled materials up, removing all trapped air.

An independent perimeter insulation barrier can be installed around the entire perimeter of the room with width equal to that of the floor build up.

Both solutions are valid, the most important is to avoid lateral propagation of impact noise. The barrier must also be applied in the perimeter of pipes, ducts or any other component protruding from the floor. Spot adhere the strips to the wall using acrylic glue or a bead of silicone sealant.

After completion, the Amorim PRO 10 should cover the entire flooring area without gaps and with joints butted tight and preferably taped.

Final Flooring

Always follow manufacturers recommended installation instructions.

Recommended Adhesives:

Wood floor to Amorim PRO 10: Water-Based Emulsion/Polyurethane Glue; Vinyl and linoleum to Amorim PRO 10: Water-Based Emulsion/Synthetic Resin Glue;

Ceramic to Amorim PRO 10: Flexible Cement Glue;

Amorim PRO 10 to slab/screed: Water-Based Emulsion/Acrylic Adhesives;

Application Process

NON GLUED FLOORS



1. Vapor insulation barrier application; 2. Perimeter barrier application; 3. Underlay application; 4. Tape application in joints between rolls; 5. Final floor application; 6. Perimeter insulation barrier cut.

GLUED FLOORS



1. Perimeter barrier application; 2. Underlay application (glued); 3. Final floor application (glued); 4. Perimeter insulation barrier cut.

Important Notes

Never mechanically fasten the Amorim PRO 10 to the flooring floor as this will severely diminish its acoustical value.

For detailed installation instructions, please contact us.



The mark of responsible forestry

