



Underlay NATURE GREEN

UNDERLAY FOR THERMAL
AND ACOUSTIC INSULATION

10m²

Dimension
1x10 m

Thickness
2 / 3 / 4 / 5 mm

TECHNICAL PROPERTIES



★★★★☆
Reduction
of impact noise



★★★★☆
Reduction
of footfall noise



★★★★☆
Thermal
resistance



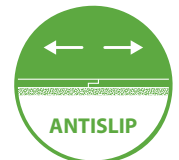
★★★★☆
Compensates
for uneven floor



★★★★☆
Protection
from damage
from falling objects



★★★★☆
Load
resistance



★★★★☆
ANTISLIP

Material Description & Properties

Agglomerated cork underlay for acoustic and thermal insulation.

KEY FEATURES

- 100% natural, reusable and recyclable.
- Excellent acoustic performance.
- Excellent thermal resistance capacity.
- Flexible and adaptable.
- High durability.
- Tested according to MMFA/EPLF higher requirements groups 1 and 2.

TECHNICAL DATA

TEST	REQUIREMENT	UNIT	RESULT
Punctual conformability (PC)	≥ 0,5	mm	1,3
Compressive strenght (CS)	≥ 400	kPa	470
Compressive creep (CC)	≥ 35	kPa	100
Impact sound (IS)	≥ 18	dB	19
Reflected walking sound (RWS)	–	%	TBD
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

THERMAL INSULATION

Thermal Conductivity ⁽¹⁾	0,0516 W/mK
Thermal Resistance	0,0388 (m ² C/W)

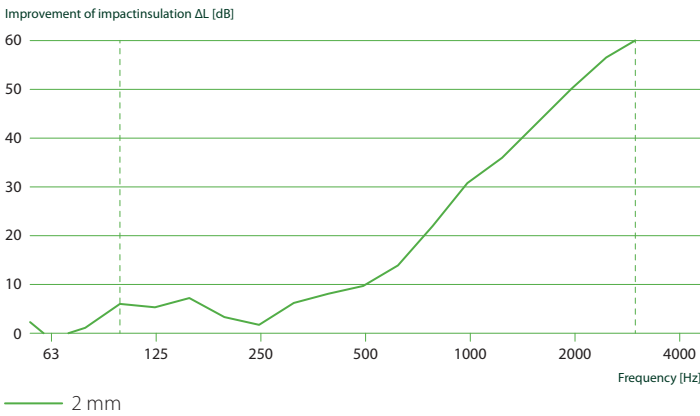
⁽¹⁾ EN 8301

ACOUSTICAL RESULTS

Flooring	Laminate
Thickness (mm)	2
ΔL_w (dB) ⁽¹⁾	19

⁽¹⁾ ISO 10140-3 and ISO 717-2

REDUCTION OF IMPACT NOISE

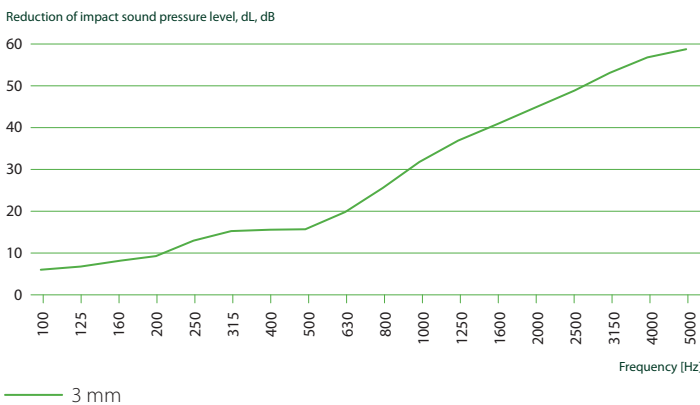


Rating according to ISO 717-2
 ΔL_w 19 dB $C_{i,\Delta} = -11$ dB $C_{i,r} = 0$ dB

Flooring	Glued down wood floor
Thickness (mm)	3
ΔL_w (dB) ⁽¹⁾	26

⁽¹⁾ ISO 10140-3 and ISO 717-2

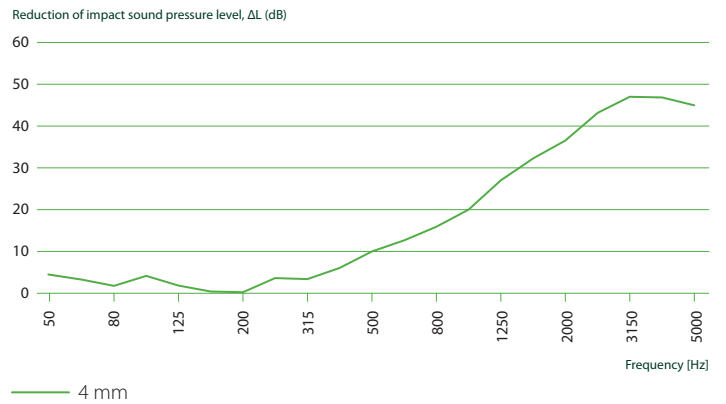
REDUCTION OF IMPACT NOISE



Flooring	Floating wood floor
Thickness (mm)	4
ΔL_w (dB) ⁽¹⁾	18

⁽¹⁾ ISO 10140-3 and ISO 717-2

REDUCTION OF IMPACT NOISE



Rating according to EN ISO 717-2
 ΔL_w 18 dB $C_{i,\Delta} = -14$ dB $C_{i,r} = 3$ dB $C_{i,r,50-2500} = 3$ dB

Flooring	Ceramic
Thickness (mm)	5
ΔL_w (dB) ⁽¹⁾	16

⁽¹⁾ ISO 10140-3 and ISO 717-2

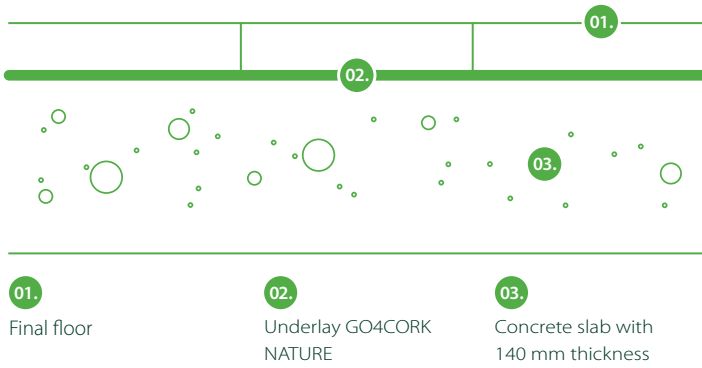
REDUCTION OF IMPACT NOISE



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

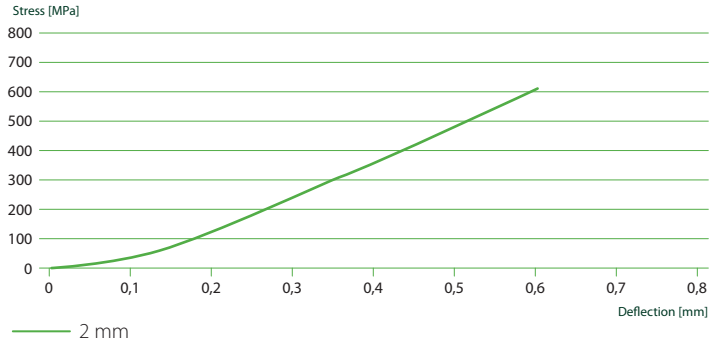
The results are based on test made with an artificial source under laboratory conditions (engineering method).

TEST APPARATUS (ΔL_w)

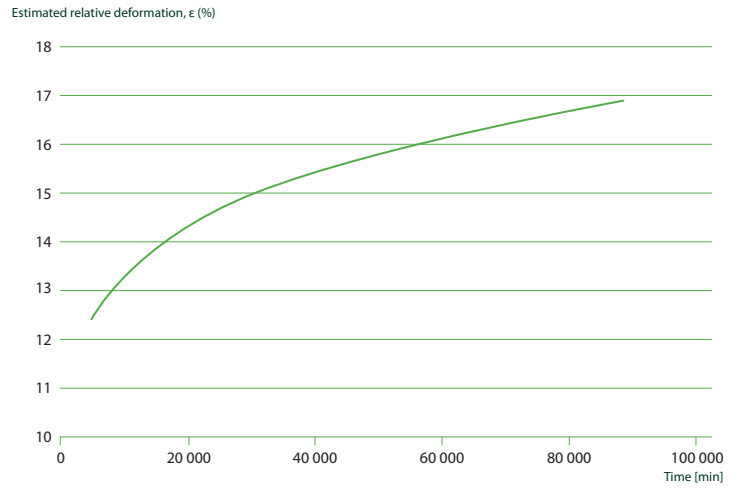


PHYSICAL AND MECHANICAL PROPERTIES

COMPRESSIVE STRENGTH



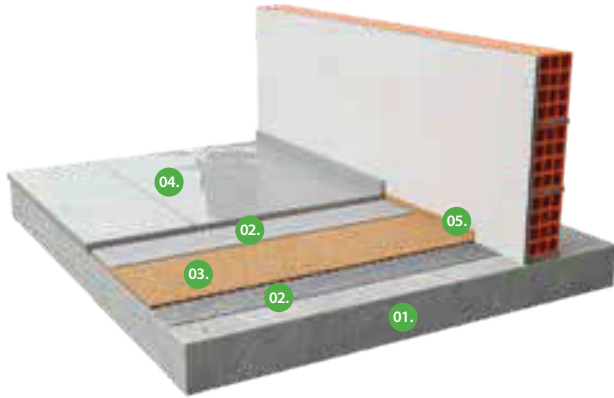
CREEP DEFLECTION @ 100 kPa (% OF START HEIGHT)



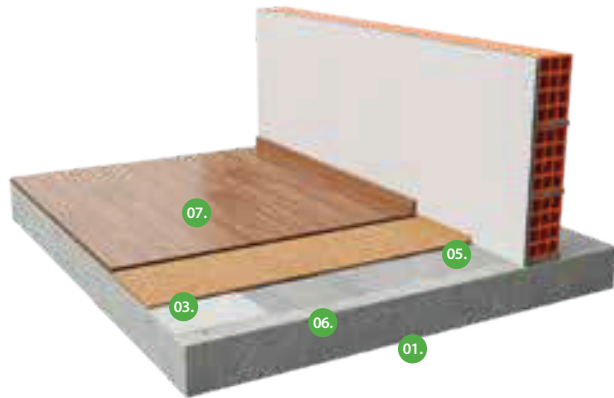
Note: Following ISO8013-1998 measured in Cantilever Test System.

APPLICATION SCHEMES

GLUED FLOORS



NON-GLUED FLOORS



- | | | | |
|---|---|--|--|
| <p>01.
Reinforced concrete slab</p> | <p>02.
Adhesive</p> | <p>03.
Underlay
GO4CORK NATURE</p> | |
| <p>04.
Floor covering composed by Laminate or ceramic</p> | <p>05.
Perimeter insulation barrier</p> | <p>06.
Vapour barrier</p> | <p>07.
Floor covering composed by non glued laminate floor</p> |

NEGATIVE CARBON BALANCE

Underlay Fusion 5166 has a negative carbon balance of -14,2 kg CO₂/m²*, when considering the CO₂ sequestration of the cork oak forest and the CO₂ emissions associated with the industrial process.



Has a carbon footprint **20x lower** than a standard synthetic foam underlay.

Requires **20x less resources' consumption** than a standard synthetic foam underlay.

* According to EY Underlay 5166 Footprint Analysis, 2020

GENERAL INSTALLATION INSTRUCTIONS

GENERAL INSTALLATION INSTRUCTIONS (WITH AND WITHOUT GLUE)

The following installation instructions are recommended by Amorim Cork Composites, and are not intended to be a definitive project specification. They should be interpreted and applied taking into account the recommendations of the manufacturers of the flooring to be installed, as well as the manufactures of the glue, should this be necessary.

1. PREPARATION OF THE SUBFLOOR

- The subfloor must be level, dry, clean and in good structural conditions. A floor is considered level if the deviation height is less than 2mm over a distance of 2.5 linear meters. Deviations above this value must be leveled out before underlay installation.
- The humidity content of the concrete substrate must not exceed 2.5 % (MC) by weight. Any moisture problems need to be solved before installation. New concrete slabs need to cure for at least 120 days before installation.
- The environmental conditions during the installation should be: temperature >10°C and humidity <75%

2. INSTALLATION OF THE MOISTURE BARRIER

For floating floors you must first install a moisture barrier across the entire area of the room to minimize the risk of possible damage caused by rising damp, and then install the underlay. The barrier must be installed directly onto the surface of the subfloor, in the opposite direction you plan to install the final floor to reduce seams. This moisture barrier should have a minimum sd-value of 75 m. It should be installed following the outline of the enclosing wall, to a height of at least 30 mm and with a minimum overlap of 100mm using a suitable tape to seal seams. After finishing, the barrier must cover the entire subfloor area without any gaps. Never mechanically secure the barrier with screws, nails or staples as this may compromise its effectiveness.

3. INSTALLATION OF THE UNDERLAY

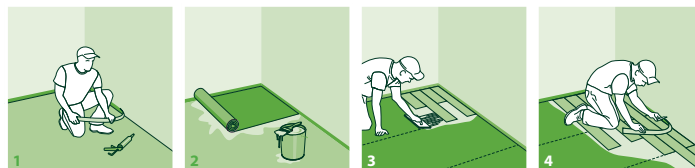
Place one roll of the underlay parallel to the wall and in the opposite direction you plan to install the final floor to reduce seams. Cut the underlay material roll to the desired length and install it directly, covering the entire surface of the room. The underlay must cover the entire area without any gaps, and be securely joined using duct tape. Never mechanically secure the underlay with screws, nails or staples as this may compromise its effectiveness. Install the flooring perpendicularly to the underlay. Always follow the flooring manufacturer's recommended installation instructions.

4. GLUED DOWN INSTALLATION

Before installing the underlay, apply the glue and make sure that the surface has been treated to prevent moisture. the installation of a moisture barrier is not necessary. After applying the glue, cut the underlay material roll to the desired length and install it directly, covering the entire surface. The underlay must cover the entire area without any gaps, and be securely joined using duct tape. Never mechanically secure the underlay with screws, nails or staples as this may compromise its effectiveness. Apply glue on the underlay and install the flooring perpendicularly to the underlay. Always follow the flooring manufacturer's recommended installation instructions.

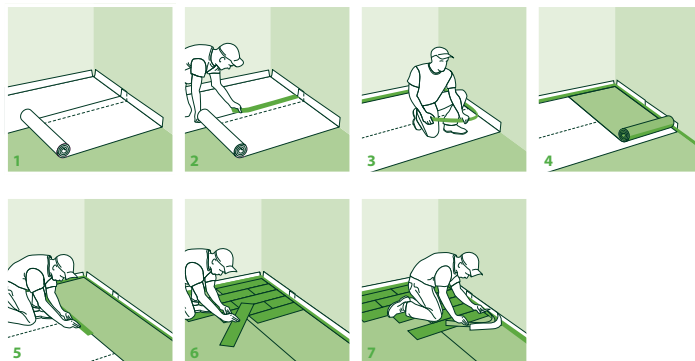
APPLICATION PROCESS

GLUED DOWN INSTALLATION



1. Installation of perimeter barrier;
2. Installation of underlay (glued);
3. Installation of final flooring (glued);
4. Cutting perimeter barrier.

FLOATING INSTALLATION



1. Installation of the moisture barrier;
2. Installation of the tape on the seams ;
3. Installation of perimeter barrier;
4. Installation of underlay;
5. Installation of the tape on joints between rolls;
6. Installation of final flooring;
7. Cutting perimeter barrier.



**AMORIM
CORK
COMPOSITES**

The data provided in this Material Data Sheet represents typical values. This information is not intended to be used as a purchasing specification and does not imply suitability for use in a specific application. Failure to select the proper product may result in either equipments damage or personal injury. Please contact Amorim Cork Composites regarding specific application recommendations. Amorim Cork Composites expressly disclaims all warranties, including any implied warranties or merchantability or of fitness for a particular purpose. Amorim Cork Composites is not liable for any indirect special, incidental, consequential, or punitive damages as a result of using the information listed in this MDS. Any of its material specification sheets, its products or any future use or re-use of them by any person or entity. For contractual purposes, please request our Product Specifications Sheet (PDA).

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