G4 CORK by Amorim

Underlay
FUSION VAPOUR BARRIER

UNDERLAY FOR THERMAL AND ACOUSTIC INSULATION
WITH PRE-ATTACHED VAPOUR BARRIER

10m²

Vapour Barrier

Dimension **1×10 m**

Thickness **2 mm**

TECHNICAL PROPERTIES

Moisture protection	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 & recycled HD EVA underlay for impact noise and thermal insulation.

KEY FEATURES

- 2 in 1 solution: Pre-attached vapour barrier for moisture protection
- Excellent acoustic insulation.
- Good load absorption capacity.
- Produced from recycled and natural raw materials.
- Anti-slip underlay.
- Tested according to MMFA/EPLF higher requirements group 1 and 2.

TECHNICAL DATA

TEST	REQUIREMENT	UNIT	RESULT
Punctual conformability (PC)	≥ 0,5	mm	1,2
Compressive strenght (CS)	≥ 400	kPa	550
Compressive creep (CC)	≥ 35	kPa	50
Impact sound (IS)	≥ 18	dB	20
Reflected walking sound (RWS)	–	%	TBD
Thermal Resistance (R)*	≤ 0,15	m²°C/W	0,033
Dynamic load (DL)	≥ 100 000	cycles	≥ 100 000
Moisture Protection (SD)	≥ 75	m	145

* Suitable for underfloor heating and cooling

THERMAL INSULATION

Thermal Conductivity [1]	0,0544 W/mK
Thermal Resistance	0,0325 (m^2°C/W)

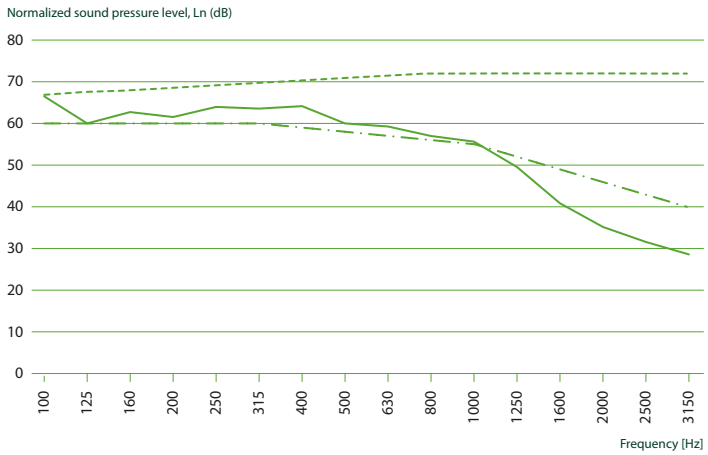
[1] EN 8301

ACOUSTICAL RESULTS

Flooring	Laminate floor
Thickness (mm)	2
ΔLw (dB) [1]	20

[1] ISO 10140-3 and ISO 717-2

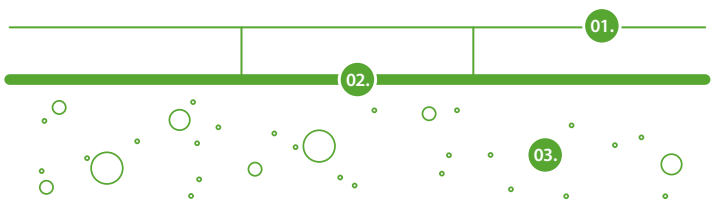
REDUCTION OF IMPACT NOISE



$L_{n,r,0}$ – 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)



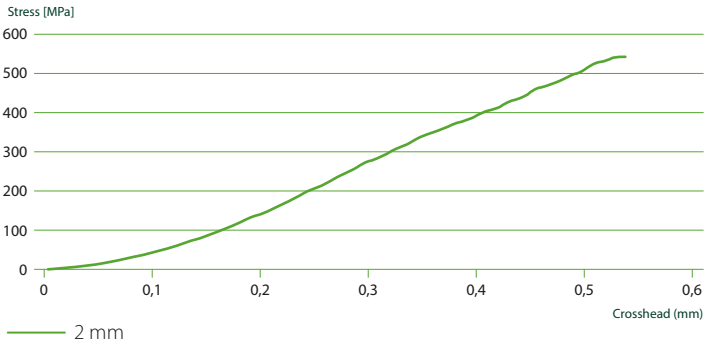
01. Laminate floor

02. Underlay GO4CORK FUSION VB (2 mm)

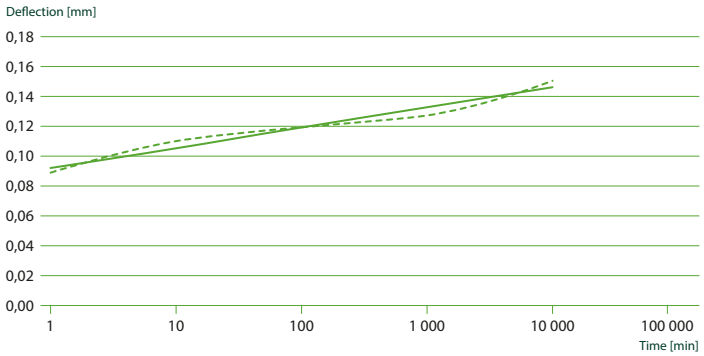
03. Concrete slab with 140 mm thickness

PHYSICAL AND MECHANICAL PROPERTIES

COMPRESSIVE STRENGTH

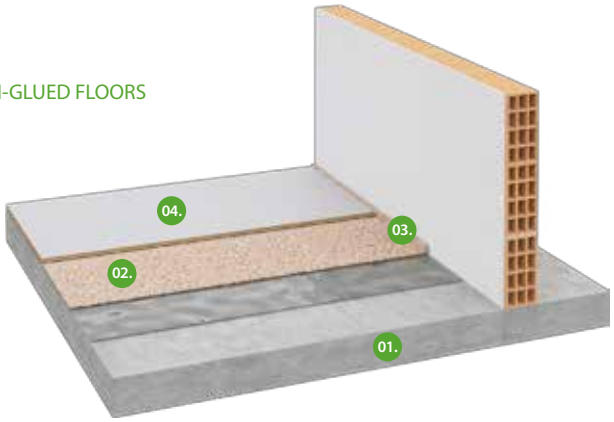


CREEP DEFLECTION @ 50 kPa (% OF START HEIGHT)



APPLICATION SCHEMES

NON-GLUED FLOORS



01. Reinforced concrete slab

02. Underlay GO4CORK FUSION VB

03. Perimeter insulation barrier

04. Floor covering composed of a non glued Laminate floor

NEGATIVE CARBON BALANCE

Underlay Fusion 5166 has a negative carbon balance of -14,2 kg CO_2/m^{2*}, when considering the CO_2 sequestration of the cork oak forest and the CO_2 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

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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.

1. PREPARATION OF THE SUBFLOOR

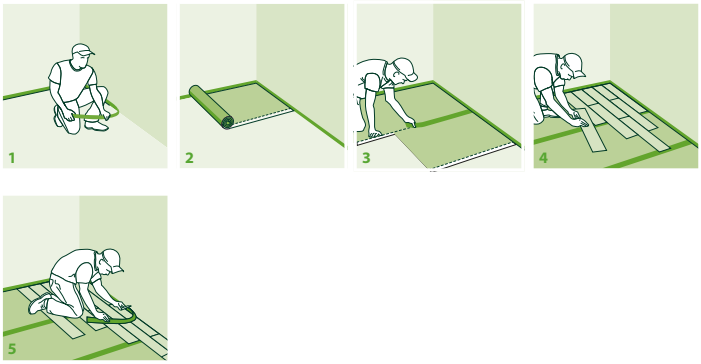
- The subfloor must be level, dry, clean and in good structural conditions. A floor is considered level if the deviation height is less than 2mm over a distance of 2.5 linear meters. Deviations above this value must be leveled out before underlay installation.
- The humidity content of the concrete substrate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

2. INSTALLATION OF THE UNDERLAY

This underlay must be installed with the vapour barrier facedown on the subfloor. 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. This underlay comes with an overlap of the plastic foil. When unrolling your rolls, install the next row immediately next to the previous one, covering the foil overlap. However, be sure to not overlap the underlay edges nor leave any gaps. Using the attached overlap creates a seamless moisture seal between rows when properly installed. Use a tape to securely seal the rows together. Never mechanically secure the underlay with screws, nails or staples as this may compromise its effectiveness. Install the final floor perpendicularly to the underlay. Always follow the flooring manufacturer's recommended installation instructions.

APPLICATION PROCESS

FLOATING INSTALLATION WITH PRE ATTACHED VAPOUR BARRIER



1. Installation of perimeter barrier; 2. Installation of underlay; 3. Installation of the tape; 4. Installation of final flooring; 5. Cutting perimeter barrier.

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