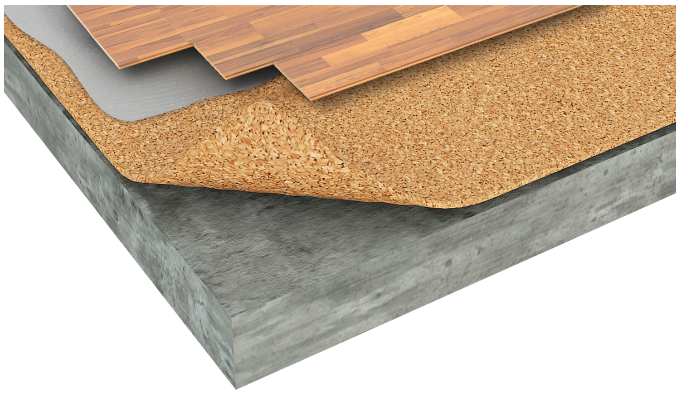
T10 ESSENCE

Agglomerated cork underlayment for impact noise and thermal insulation



PRODUCT SPECIFICATION

Resilient acoustic underlayment made of agglomerated cork with PU (polyurethane) elastomer bonding agent for impact noise insulation of different types of flooring, with a density up to 280kg/m³.

KEY FEATURES

- Homogeneous material produced almost 100% from cork
- High durability and long term resilience
- Versatile material with reduced thickness
- Low residual indentation and negative carbon balance

PHYSICAL AND MECHANICAL PROPERTIES

Specific Weight (kg/m³ | lb/ft³) ①	160–280 | 10–18
Tensile Strength (kPa) ①	>200 | >550
Compression at 0.7MPa (%) ①	20–45
Recovery after 0.7MPa (%) ①	> 60

① ISO 7322

TECHNICAL PROPERTIES

Flooring		Laminates	
Thickness	mm	2.0	2.0
Thermal Resistance (TR) ①	m².ºC/W	0.039	0.039
Floor Durability			
Punctual Conformability (PC) ①	mm	>1	>1
Compressive Strength (CS) ①	kPa	>200	>200
Compressive Creep (CC) ①	kPa	>100	>100
Water Vapor Resistance (SD) ①	m	NA	> 75
Vapor Barrier		O	●

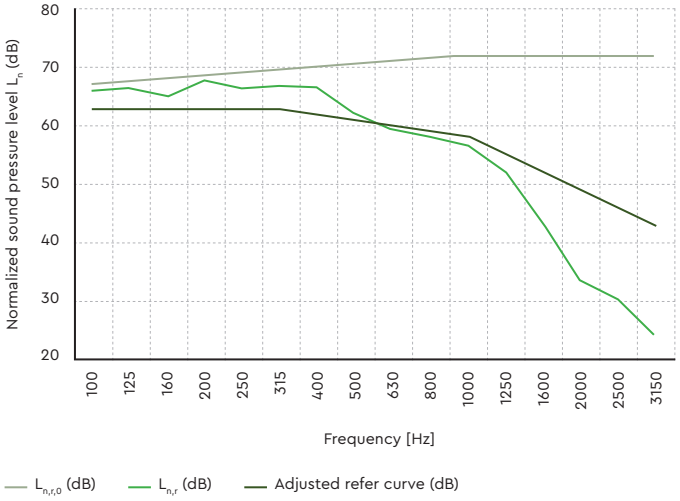
① EN 16354 **TBD** To be determined **NA** Not applicable ● Yes O No

ACOUSTIC RESULTS

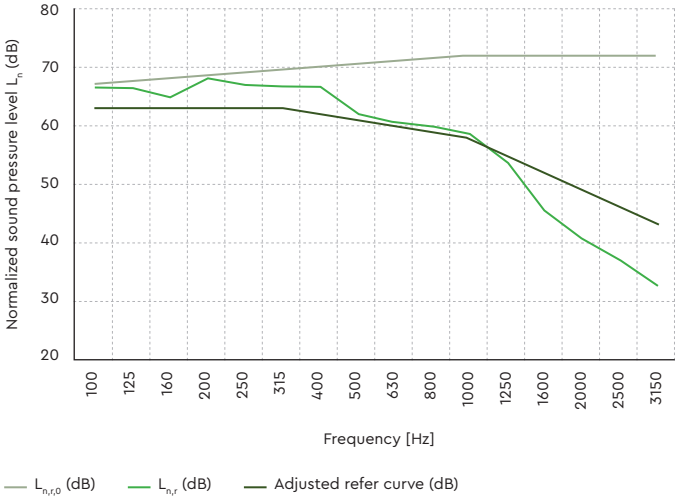
Flooring		Laminate	Laminate
Flooring Thickness	mm	8	8
Underlayment Thickness	mm	2	3
Impact Insulation (IS) ①	dB (ISO)	17	17
IIC | ΔIIC ②	dB (ASTM)	— | —	— | —
Sound Transmission (STC) ③	dB (ASTM)	—	—
System (Glued | Floating)		Floating	Floating
System (Ceiling)		○	○

① Standard ISO 717-2:2013 ② Standard ASTM E413 ③ Standard ASTM E989-89 ● Yes ○ No

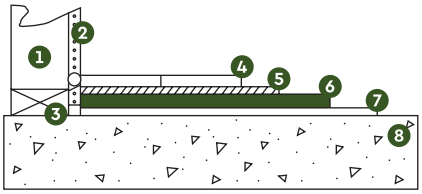
Impact Sound (IS) · Laminate (8mm) · T10 (2mm) · Floating



Impact Sound (IS) · Laminate (8mm) · T10 (3mm) · Floating



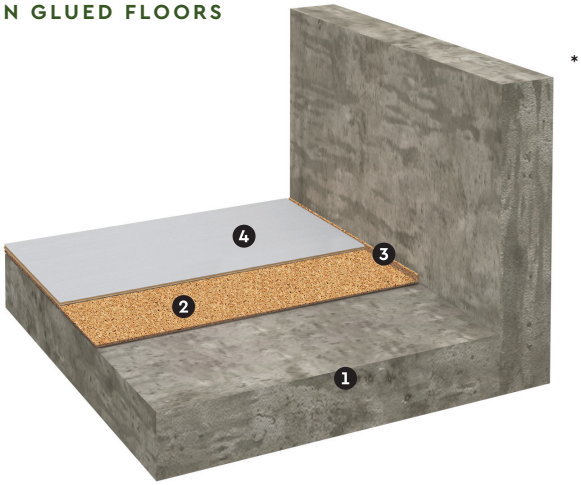
TEST APPARATUS (ΔL_w)



1. Wall
2. Wall board
3. Perimeter isolation barrier (optional)
4. Laminates
5. Adhesive (recommended flooring producer)
6. Acousticork T10
7. Adhesive (recommended flooring producer)
8. Subfloor concrete slab

INSTALLATION

NON GLUED FLOORS



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1. Reinforced concrete slab
2. Agglomerated cork resilient layer – Acousticork T10
3. Perimeter insulation barrier (optional)
4. Floor covering composed by non glued wood floor

*Product images and illustrations are for illustrative purposes only.

NEGATIVE CARBON BALANCE

Underlayment Essence T10 and Essence T10 VB have a negative carbon balance of – 12.4 kg/ $eqCO_2$ per m^2* and -11.98 kg/$eqCO_2$ per m^2, respectively, when taking into account the CO_2 sequestered by cork oak forests and the emissions associated with the industrial process.

- Up to 36 times less Greenhouse gas emissions than PU Foam (Polyurethane) solutions**
- Consumes up to 23 times less Energy than any solution made of PU Foam**
- Environmental impact of up to 23 times less than other solutions on the market made from PE (Polyethylene)**

* EY study: Underlayment Essence T10 Carbon Footprint Analysis, 2020 (cradle-to-gate)
** These Amorim Cork Composites conclusions (outside the scope of the EY study) were based on the ecoinvent version 3.5 database (2018), but have not been verified by a third party

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 installer.

Final Flooring

Always follow manufacturers recommended installation instructions, particularly when adhesives are recommended.

Recommended Adhesives

Wood-based floor to Acousticork: Water-Based Emulsion/ Polyurethane Glue;

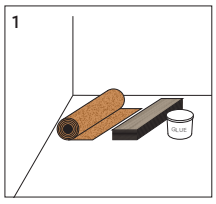
Important Notes

Never mechanically fasten the Acousticork T10 to the flooring floor as this will severaly diminish its acoustical value.

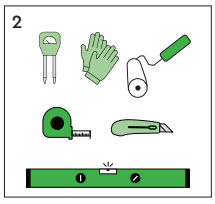
For more detailed installation instructions, please contact us.

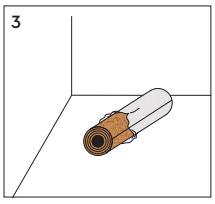
Never install a wood or laminate floor without vapor barrier (integrated or applied before the underlayment).

APPLICATION PROCESS · GLUED FLOOR

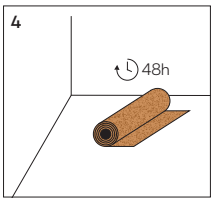


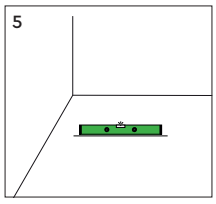
These are all the materials needed to install the underlayment.

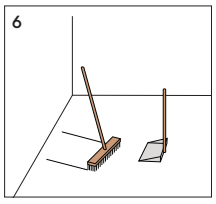




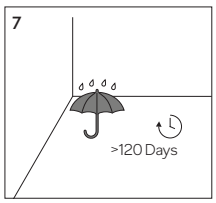
For the installation process, open the packaging 48 hours in advance and leave for acclimatization



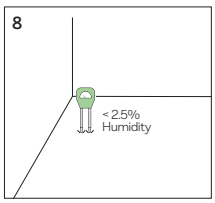




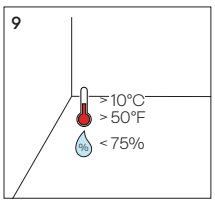
Subfloor preparation: Make sure that the subfloor is leveled, dry, clean and in good structural conditions.



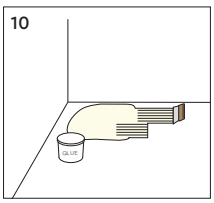
New concrete slabs must be left to cure for 120 days before installation.



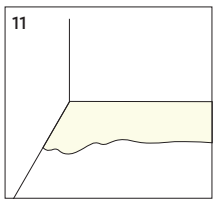
The humidity content of the substrate is critical: it must not exceed 2.5 % (MC).



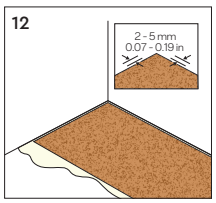
Air temperature should be above 10°C and air humidity below 75%.



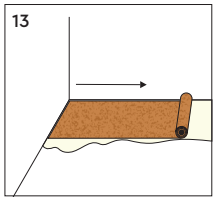
Optional step: apply the glue using a trowel. The installation of a moisture barrier is not necessary.



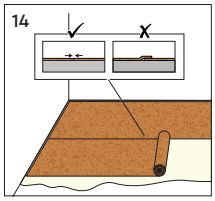
Optional step: we recommend the use of an adequate glue for the flooring to be installed.



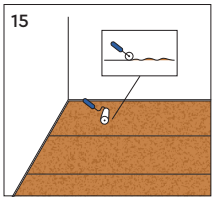
Install the underlayment directly on the adhesive, leave a space between the wall and the underlayment.



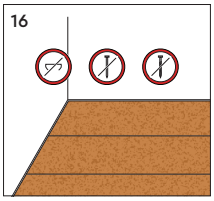
The underlayment should be installed in a perpendicular direction that you plan to install the final floor.



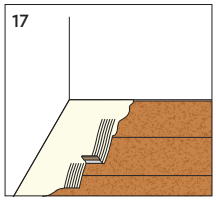
The underlay must cover the entire area without any gaps nor overlaps.



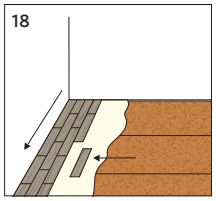
Use the paint roller to make sure the underlayment doesn't have any waves.



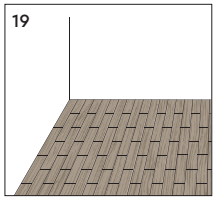
Never mechanically secure the underlayment with screws, nails or staples, since this may undermine its effectiveness.



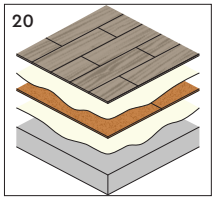
Apply the same glue on the underlayment.



Install the flooring in a perpendicular direction to the underlayment, and let the whole floor dry completely before you start to use it.



Always follow the flooring manufacturer's recommended installation instructions.



Total System.

For more information about this installation process and for non glued floors, access here

TECHNICAL DATA SHEET **T10** ESSENCE