

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 (%) $^{\circledR}$	> 60
① ISO 7322	

TECHNICAL PROPERTIES

el ·			
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) $^{\scriptsize 0}$	m	NA	> 75
Vapor Barrier		0	•

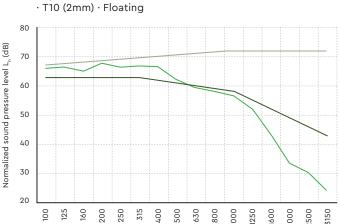
① EN 16354 TBD To be determined NA Not applicable ● Yes O No

ACOUSTIC RESULTS

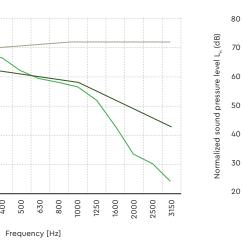
Flooring			Laminate		Wood
Flooring Thickness	mm	8	8	8	14
Underlayment Thickness	mm	2	2	3	2
Impact Insulation (IS) ^①	dB (ISO)	17	_	17	_
Impact Insulation IIC Δ IIC ^②	dB (ASTM)	- -	74 38	- -	73 40
Sound Transmission (STC) $^{\cite{3}}$	dB (ASTM)	_	69	_	71
System (Glued Floating)		Floating	Floating	Floating	Floating
System (Ceiling)		0	•	0	•

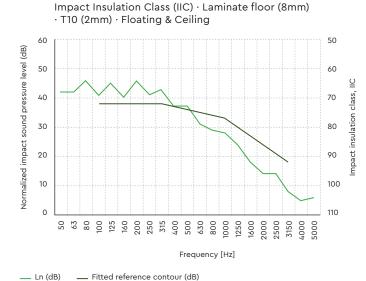
① Standard ISO 717-2:2013 ② Standard ASTM E413 ③ Standard ASTM E989-89 • Yes O No

Impact Sound (IS) · Laminate floor (8mm)

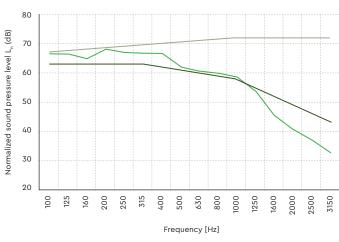




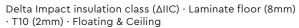




Impact Sound (IS) · Laminate floor (8mm) · T10 (3mm) · Floating



___ L_{n,r,0} (dB) ___ L_{n,r} (dB) ___ Adjusted refer curve (dB)

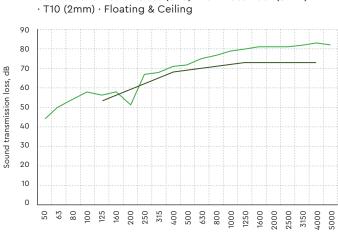




__ Lref,c(dB) __ Fitted reference contour (dB)

AMORIM CORK SOLUTIONS

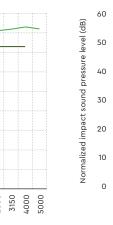
ACOUSTIC RESULTS



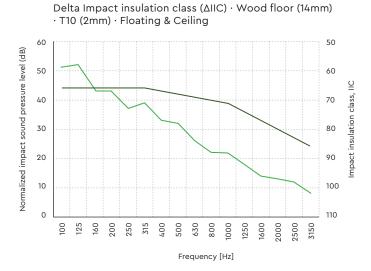
Frequency [Hz]

Sound transmission class (STC) · Laminate floor (8mm)

___ TL (dB) ___ Adjusted refer curve (dB)



___ Lref (dB) ___ Fitted reference contour (dB)



___ Lref,c(dB) ___ Fitted reference contour (dB)



550 63 80 100 1125 125 220 550 630 800 1125

Frequency [Hz]

Frequency [Hz]

Impact Insulation Class (IIC) · Wood floor (14mm)

80

90

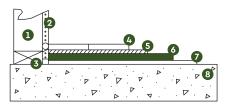
100

· T10 (2mm) · Floating & Ceiling

___ TL (dB) ___ Adjusted refer curve (dB)

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TEST APPARATUS (AL,)



- Wall
- Wall board
- 3 Perimeter isolation barrier
- **3** Adhesive (recommended flooring producer)
- Acousticork T10
- Adhesive (recommended) flooring producer)
- 3 Subfloor concrete slab

NEGATIVE CARBON BALANCE

Underlayment Essence T10 and Essence T10 VB have a negative carbon balance of -18.6 kg/eqCO₂ per m^{2*} and -18.0 kg/eqCO₂ per m², respectively, when taking into account the CO₂ sequestered by cork oak forests and the emissions associated with the industrial process.



* EY study: Underlayment Essence T10 e Essence T10 VB Carbon Footprint Analysis, 2020 (cradle-to-gate)

INSTALLATION



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

GENERAL INSTALLATION INSTRUCTIONS

The following installation instructions are recommended by Amorim Cork Solutions, 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;

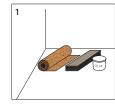
Important Notes

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.

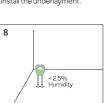
Never install a wood or laminate floor without vapor barrier (integrated or applied before the underlayment).

APPLICATION PROCESS · GLUED FLOOR



installation.

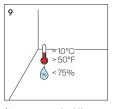
These are all the materials needed to install the underlayment.



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



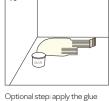
substrate is critical: it must not exceed 2.5 % (MC).



and leave for acclimatization

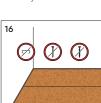
Air temperature should be above 10°C and air humidity below 75%.

have any waves.

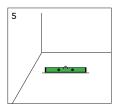


€ 48h

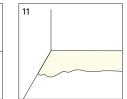
using a trowel. The installation of a moisture barrier is not necessary.



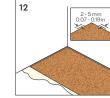
Never mechanically secure undermine its effectiveness.



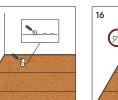
Subfloor preparation: Make sure that the subfloor is leveled, dry, clean and in good structural conditions.



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

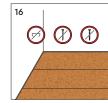


Install the underlayment directly on the adhesive, leave a space between the wall and the underlayment.

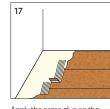


Use the paint roller to make sure the underlayment doesn't

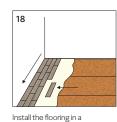
For the installation process, open the packaging 48 hours in advance



the underlayment with screws, nails or staples, since this may



Apply the same glue on the



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



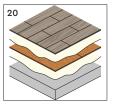
The underlayment should be

direction that you plan to install

installed in a perpendicular

the final floor.

Always follow the flooring manufacturer's recommended installation instructions



The underlay must cover the

overlaps

entire area without any gaps nor

Total System.



process and for non glued floors

TECHNICAL DATA SHEET T10 ESSENCE

The data provided in this Technical 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 Solutions regarding specific application recommendations. Amorim Cork Solutions expressly disclaims all warranties, including any implied warranties or merchantability or of fitness for a particular purpose. Amorim Cork Solutions is not liable for any indirect special, incidental, consequential, or punitive damages as a result of using the information listed in this TDS. 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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^{*}Product images and illustrations are for illustrative purposes only.