ACOUSTICORK

AMORIM
CORK COMPOSITES

T66

Material Data Sheet

Material Description & Properties

Agglomerated cork and recycled rubber underlay for impact noise and thermal insulation.

PRODUCT SPECIFICATION

"___mm resilient acoustic underlay made of agglomerated cork and recycled SBR (Stirene Butadiene Rubber) with PU (polyurethane) elastomer bonding agent for impact noise insulation for different types of flooring, with a density of 650kg/m³ and an impact noise reduction ΔLw of___dB"

KEY FEATURES

- Homogenous material produced from cork and recycled rubber granules with the same size (0.5-1mm).
- High durability and long term resilience
- High performance with reduced thickness
- Low residual indentation and free of migration of plasticizes

THERMAL PROPERTIES

Thermal Conductivity: 0.08 W/mK (1)

(1) ISO 8301

PHYSICAL AND MECHANICAL PROPERTIES

Specific Weight (1)	600 - 700 Kg/m³
Tensile Strength (1)	> 800 KPa
Compression at 0.7MPa (1)	15%
Recovery after 0.7MPa (1)	> 75%

(1) ISO 7322

ACOUSTICAL RESULTS

Flooring	Laminate	
Thickness (mm)	3	
ΔL_w (dB) (1)	19	
IIC (dB) (2)	47	
Flooring	Glued Down Wood	
Thickness (mm)	3	
ΔL_w (dB) (1)	16	
IIC (dB) (2)	50	
Flooring	Ceramic (or Natural Stone)	
Thickness (mm)	3	4.5
ΔL_w (dB) (1)	16	18
IIC (dB) (2)	51	52
Flooring	Resilient (LVT)	
Thickness (mm)	3	
ΔL_w (dB) (1)	19	
IIC (dB) (2)	51	

(1) ISO 10140-3 and ISO 717-2 • (2) ASTM E492-09 & ASTM E989-06

STANDARD DIMENSIONS

Thickness (mm)	3	4.5
Width (m) x Length (m)	1x15	1x15

Others sizes available upon request

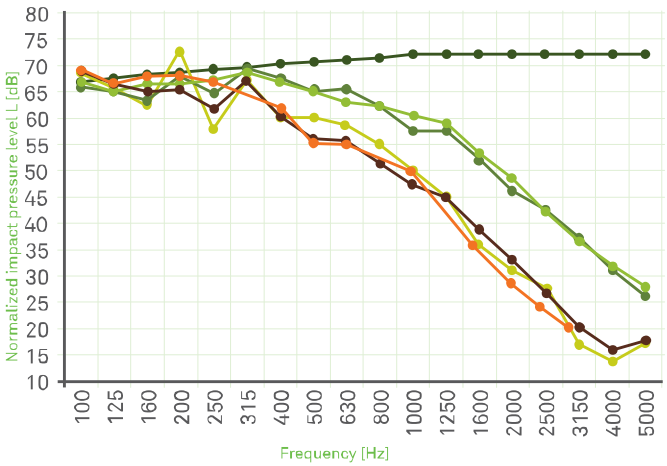
CASTOR CHAIR RESISTANCE

Pass (1)

(1) EN425-2002

ACOUSTICAL RESULTS

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



$L_{n,r,0}$ (dB)
$L_{n,r}$ (dB) - 3mm GDW*
$L_{n,r}$ (dB) - 3mm LVT
$L_{n,r}$ (dB) - 3mm Laminate
$L_{n,r}$ (dB) - 3mm Ceramic
$L_{n,r}$ (dB) - 4.5mm Ceramic

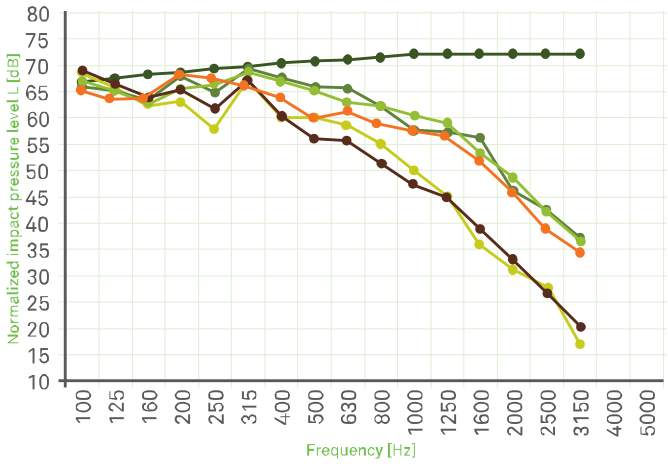
*Glued Down Wood

$L_{n,r}$ - 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;

Ref. Test Report	ACU 337/11
Thickness	3 mm
Flooring	Laminate
$L_{n,r,w}$ ($C_{I,r}$)	59 (2) dB
ΔL_w ($C_{I,\Delta}$)	19 (-13) dB
Ref. Test Report	ACL 127/15
Thickness	3 mm
Flooring	Glued Down Wood
$L_{n,r,w}$ ($C_{I,r}$)	62 (0) dB
ΔL_w ($C_{I,\Delta}$)	16 (-11) dB
Ref. Test Report	ACL 203/14
Thickness	3 mm
Flooring	Ceramic (or Natural Stone)
$L_{n,r,w}$ ($C_{I,r}$)	62 (-1) dB
ΔL_w ($C_{I,\Delta}$)	16 (-10) dB
Ref. Test Report	ACL 072/17
Thickness	4.5mm
Flooring	Ceramic (or Natural Stone)
$L_{n,r,w}$ ($C_{I,r}$)	60(-1) dB
ΔL_w ($C_{I,\Delta}$)	18 (-10) dB
Ref. Test Report	ACL 199/14
Thickness	3mm
Flooring	LVT
$L_{n,r,w}$ ($C_{I,r}$)	59 (0) dB
ΔL_w ($C_{I,\Delta}$)	19 (-11) dB

ACOUSTICAL RESULTS

Test procedure according to ISO 10140-1:2010; ISO 1040-3;2010 and ISO 10140-4:2010 standards. Normalized impact sound pressure level and IIC rating determined according ASTM E492-09 and ASTM E989-06 standards.



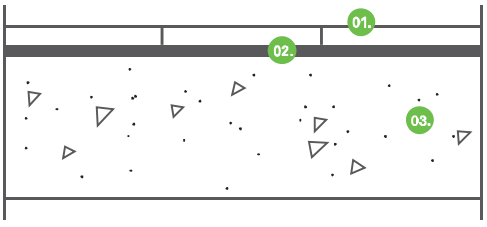
$L_{n,r,0}$ (dB)
$L_{n,r}$ (dB) - 3mm GDW*
$L_{n,r}$ (dB) - 3mm LVT
$L_{n,r}$ (dB) - 3mm Laminate
$L_{n,r}$ (dB) - 3mm Ceramic
$L_{n,r}$ (dB) - 4.5mm Ceramic

*Glued Down Wood

L_{ref} - Normalized impact sound pressure level of the reference floor with the floor covering under test;
$L_{ref,0}$ - Normalized impact sound pressure level of the Lab reference floor;

Thickness	Flooring	IIC_c
3 mm	Laminate	47 dB
3 mm	Glued Down Wood	50 dB
3 mm	Ceramic (or Natural Stone)	51 dB
4.5 mm		52 dB
3 mm	LVT	51 dB

TEST APPARATUS (ΔL_w & IIC)



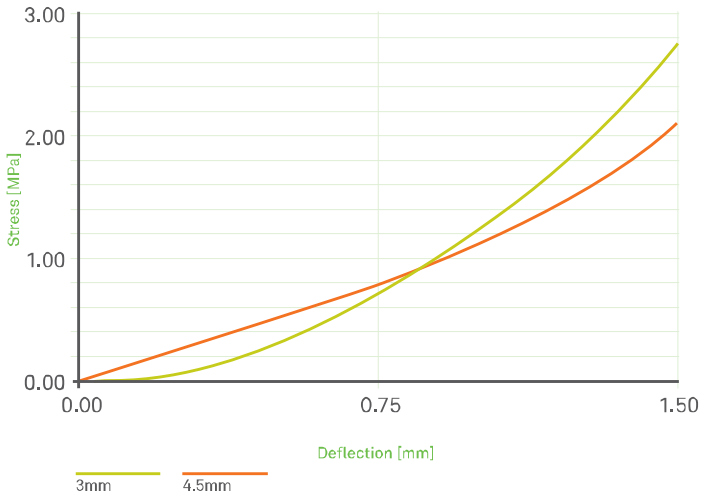
01. Floor covering composed by glued down wood, non glued laminate floor or ceramic or natural stone tiles

02. Agglomerated cork and recycled rubber resilient layer - T66

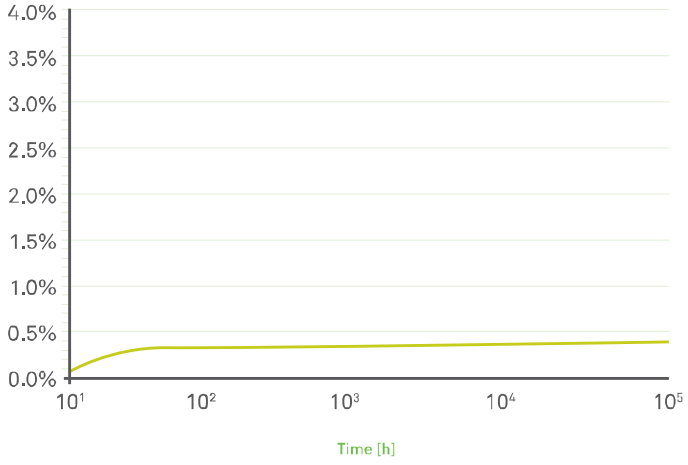
03. Reinforced concrete slab of thickness 140mm

PHYSICAL AND MECHANICAL PROPERTIES

LOAD DEFLECTION



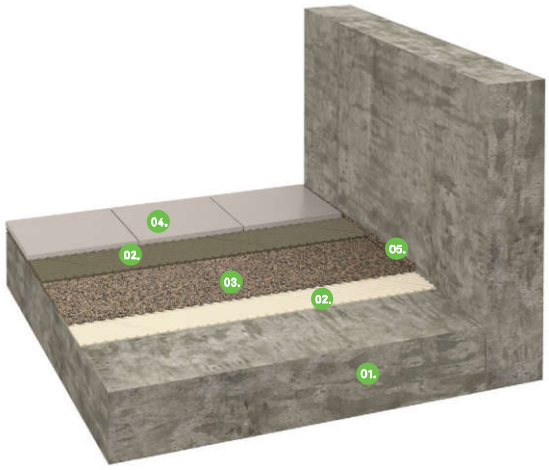
CREEP DEFLECTION @ 0.0045MPA (% OF START HEIGHT)



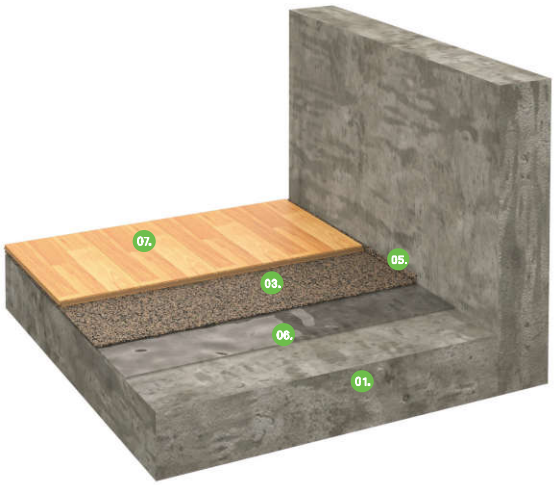
Note: Following ISO8013-1998 measured in Cantilever Test System

INSTALLATION

GLUED FLOORS



NON GLUED FLOORS



01. Reinforced concrete slab

02. Adhesive

03. Agglomerated cork and recycled rubber resilient layer - T66

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 Acousticork T66.

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 Acousticork T66
Unpack the Acousticork T66 at least 24h before the installation and store it in the room where the installation will take place. Cut the T66 to desired length and install directly over the entire floor pulled 30mm up the walls with crown of the rolled materials up, removing all traped 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 T66 should cover the entire flooring area without gaps and with joints butted tight and preferably taped.

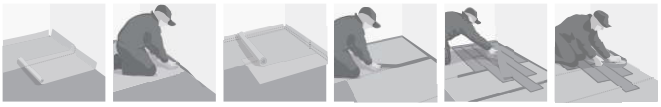
Mini-rolls of perimeter barrier (PB T66) available upon request.

Final Flooring
Always follow manufacturers recommended installation instructions.

Recommended Adhesives:
Wood floor to Acousticork: Water-Based Emulsion/Polyurethane Glue;
Vinyl and linoleum to Acousticork: Water-Based Emulsion/Synthetic Resin Glue;
Ceramic to Acousticork: Flexible Cement Glue;
Acousticork 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 Acousticork T66 to the flooring floor as this will severaly diminish its acoustical value.

For detailed installation instructions, please contact us.

CERTIFICAÇÃO apcer ISO 9001 ISO 14001 OHSAS 18001 CERTIFIED IQNet MANAGEMENT SYSTEM

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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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