ACOUSTICORK

AMORIM
CORK COMPOSITES

U32

Material Data Sheet

Material Description & Properties

Agglomerated cork resilient layer for impact noise insulation of floating screed.

PRODUCT SPECIFICATION

"___mm resilient acoustic underscreed made of agglomerated cork with PU (polyurethane) elastomer bonding agent for impact noise insulation of floating screeds, with a density of 185kg/m³ and an impact noise reduction ΔL_w of___dB."

KEY FEATURES

- Impact noise reduction and thermal insulation properties
- Very easy to handle and long term resilience
- Natural and sustainable product
- Low creep

THERMAL PROPERTIES

Thermal Conductivity: 0.04 W/mK (1)

(1) ISO 8301

PHYSICAL AND MECHANICAL PROPERTIES

Specific Weight (1)	150 - 220 Kg/m³
Tensile Strength (2)	> 200 KPa
Recovery after 0.7MPa (3)	> 70%
Dynamic Stiffness (4)	*

(1) ASTM F1315 • (2) ASTM F152 • (3) ASTM F36 • (4) ISO 9051-1 & ISO 7626-5
* Test being performed

ACOUSTICAL RESULTS

Thickness (mm)	4
ΔL_w (dB) (1)	19
IIC (dB) (2)	47
Thickness (mm)	6/3
ΔL_w (dB) (1)	20
IIC (dB) (2)	48
Thickness (mm)	8/4
ΔL_w (dB) (1)	21
IIC (dB) (2)	42
Thickness (mm)	10/5
ΔL_w (dB) (1)	22
IIC (dB) (2)	47

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

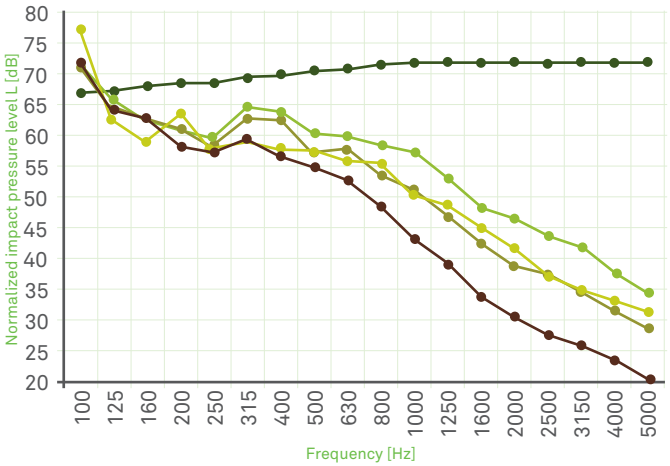
STANDARD DIMENSIONS

Thickness (mm)	4	6/3	8/4	10/5
Width (m) x Length (m)	1x15	1x20	1x15	1x10

Others sizes available upon request

ACOUSTICAL RESULTS

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



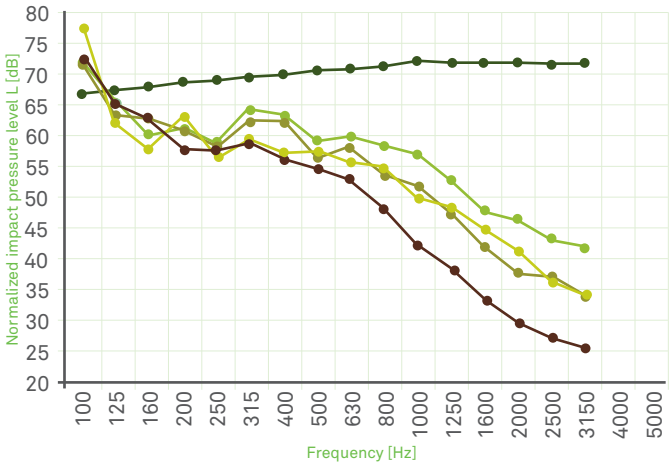
$L_{n,r,0}$(dB) $L_{n,r}$ (dB) - 6/3mm $L_{n,r}$ (dB) - 10/5mm
$L_{n,r}$ (dB) - 4mm $L_{n,r}$ (dB) - 8/4mm

$L_{n,r}$ - 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	ACL104/15
Thickness	4 mm
$L_{n,r,w}$ ($C_{I,r}$)	59 (1) dB
ΔL_w ($C_{I,\Delta}$)	19 (-12) dB
Ref. Test Report	ACL042/14
Thickness	6/3 mm
$L_{n,r,w}$ ($C_{I,r}$)	58 (1) dB
ΔL_w ($C_{I,\Delta}$)	20 (-12) dB
Ref. Test Report	ACU242/09
Thickness	8/4 mm
$L_{n,r,w}$ ($C_{I,r}$)	57 (7) dB
ΔL_w ($C_{I,\Delta}$)	21 (-18) dB
Ref. Test Report	ACL107/15
Thickness	10/5 mm
$L_{n,r,w}$ ($C_{I,r}$)	56 (3) dB
ΔL_w ($C_{I,\Delta}$)	22 (-14) 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.

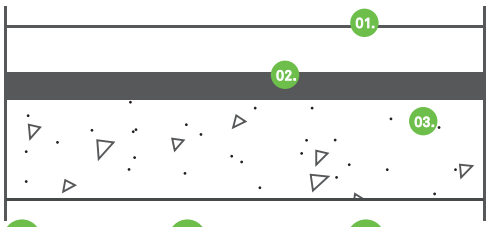


$L_{n,r,0}$(dB) $L_{n,r}$ (dB) - 6/3mm $L_{n,r}$ (dB) - 10/5mm
$L_{n,r}$ (dB) - 4mm $L_{n,r}$ (dB) - 8/4mm

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

Thickness	IIC_c
4 mm	47 dB
6/3 mm	48 dB
8/4 mm	42 dB
10/5 mm	47 dB

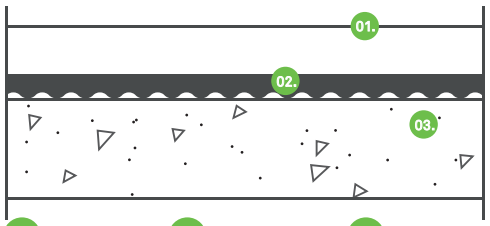
TEST APPARATUS (ΔL_w & IIC)



01. Concrete floating screed with 70mm thickness

02. Agglomerated cork resilient layer - U32

03. Reinforced concrete slab of thickness 140mm



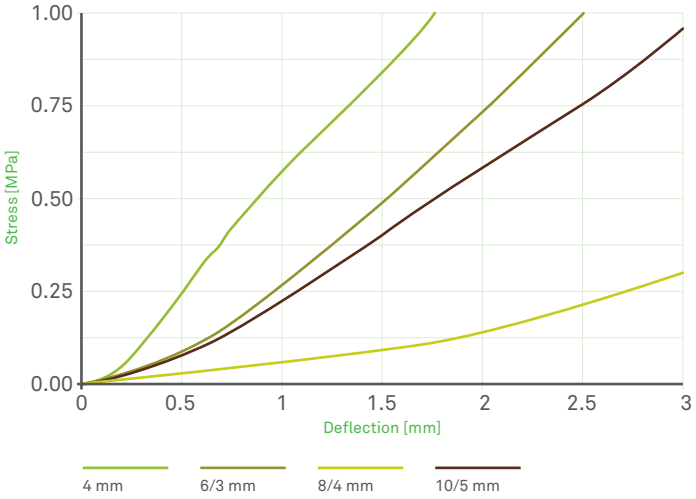
01. Concrete floating screed with 70mm thickness

02. Agglomerated cork resilient layer with one face dimpled - U32 Profile

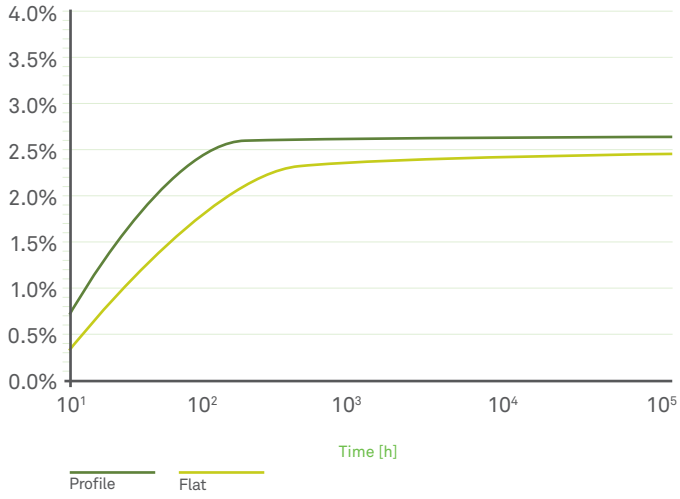
03. Reinforced concrete slab of thickness 140mm

PHYSICAL AND MECHANICAL PROPERTIES

LOAD DEFLECTION



CREEP DEFLECTION @ 0.0045MPA (% OF START HEIGHT)



Note: Following ISO8013-1998 measured in Cantilever Test System

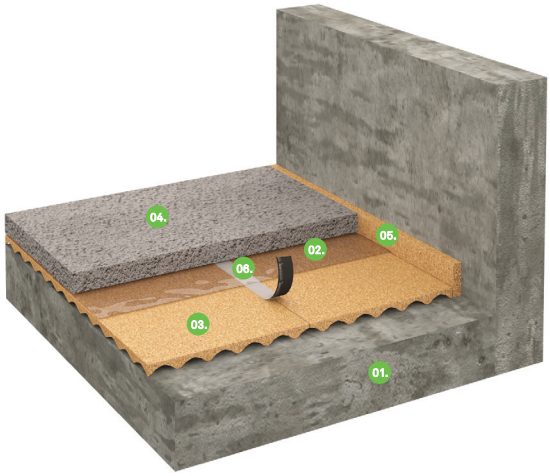
DYNAMIC STIFFNESS

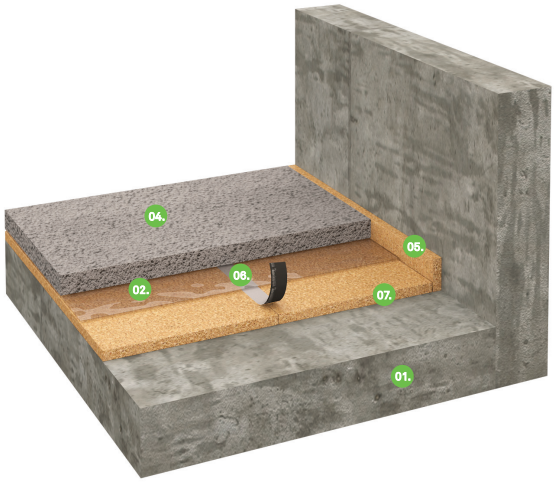
Test procedure according ISO 9052-1 and ISO 7626-5 standards.

Thickness (mm)	4	6/3	8/4	10/5
Dynamic Stiffness (MN/m³)	*	107	86	*

* Test being performed

INSTALLATION





01. Reinforced concrete slab

02. Vapor barrier

03. Agglomerated cork resilient layer with one face dimpled - U32 Profile

04. Concrete floating screed

05. Perimeter insulation barrier

06. Adhesive tape

07. Agglomerated cork resilient layer - U32

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 and screed.

Room Conditions
Temperature > -5ºC / 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.

Perimeter Insulation Barrier
Install a perimeter insulation barrier vertically around the entire perimeter of the room with width equal to that of the floor build up. This is highly recommended in order 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.

Mini-rolls of perimeter barrier (PB U32) available upon request.

Installation Instruction for Acousticork U32
Unpack the Acousticork U32 at least 24h before the installation and store it in the room where the installation will take place. Cut and trim the Acousticork U32 to the desined size to fit the installation. Apply directly over the subfloor. Always ensure that material is installed to fit the application avoiding the creation of waves in the material. In case of profile material, dimple side must face down.

Place the Acousticork U32 directly against the insulation perimeter barrier already installed. Proceed to cover the entire floor making sure that the joints are butted tight and use an adequate tape to fix it. After completion, the Acousticork U32 should cover the entire flooring area without gaps and with joints securely taped. An waterproof membrane (ex. Polyethylene foil) minimum 0.2mm covering the entire flooring area MUST be installed prior to the screed. Install it, minimum 150mm wide vertically and overlapping it, minimum 100mm. After completion, the insulation vapour barrier should cover the entire Acousticork U32 area without gaps. Never mechanically fasten the Acousticork U32 and/or the PE foil barrier with screws, nails or staples as this will severely diminish the performance of the insulation barrier.

Screed and Final Flooring
Cast a suitable screed over the loose laid PE foil previously installed over the product.

Always follow manufacturers recommended installation instructions.

For detailed installation instructions, please contact us.

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

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