

U32



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 between 150 and 220kg/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 (W/mK) 0,04 ^①

^① ISO 8301

PHYSICAL AND MECHANICAL PROPERTIES

Specific Weight (Kg/m³) ^① 150–220

Tensile Strength (KPa) ^① > 200

Recovery after 0.7MPa (%) ^① > 70

^① According to ISO 7322



ACOUSTICAL RESULTS

Thickness (mm) 6/3

ΔL_w (dB) ^① 20

IIC (dB) 58

Thickness (mm) 8/4

ΔL_w (dB) ^① 21

IIC (dB) 52

Thickness (mm) 10/5

ΔL_w (dB) ^① 22

IIC (dB) 54

^① ISO 10140-3 and ISO 717-2

Note: IIC for 8/4 mm is validated to ASTM E2179-03 and ASTM E492-09; IIC for 6/3 mm and 10/5 mm are extrapolated-based according to the correlation between ISO 140-6 and ASTM E492. Practical tests are being performed.

STANDARD DIMENSIONS

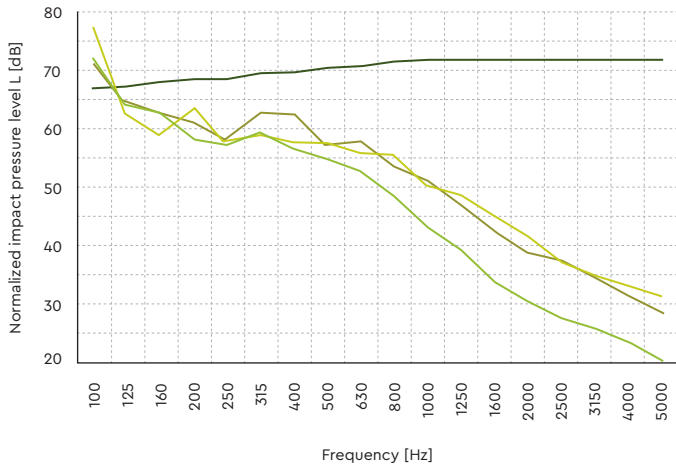
Thickness (mm) 6/3 8/4 10/5

Width (m) x Length (m) 1X20 1X15 1X10

Others sizes available upon request

ACOUSTICAL RESULTS

Test procedure as per ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010; ISO 717-2:2013



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

$L_{n,r}$ 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

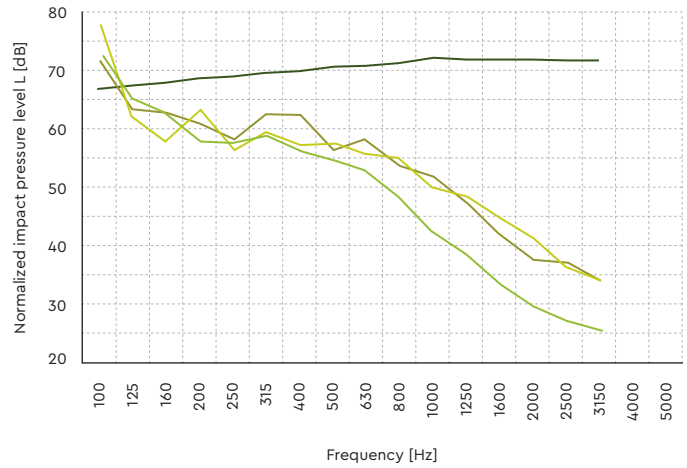
Ref. Test Report	ACL042/14
Thickness (mm)	6/3
$L_{n,r,w}$ ($C_{l,r}$) (dB)	58 (1)
ΔL_w ($C_{l,\Delta}$) (dB)	20 (-12)

Ref. Test Report	ACU242/09
Thickness (mm)	8/4
$L_{n,r,w}$ ($C_{l,r}$) (dB)	57 (7)
ΔL_w ($C_{l,\Delta}$) (dB)	21 (-18)

Ref. Test Report	ACL107/15
Thickness (mm)	10/5
$L_{n,r,w}$ ($C_{l,r}$) (dB)	56 (3)
ΔL_w ($C_{l,\Delta}$) (dB)	22 (-14)

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

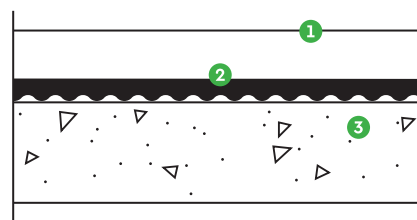
L_{ref} Normalized impact sound pressure level of the reference floor with the floor covering under test

$L_{ref,c}$ Normalized impact sound pressure level of the Lab reference floor

Thickness (mm)	6/3	8/4	10/5
IIC (dB)	58	52	54

Note: IIC for 8/4 mm is validated to ASTM E2179-03 and ASTM E492-09; IIC for 6/3 mm and 10/5 mm are extrapolated-based according to the correlation between ISO 140-6 and ASTM E492. Practical tests are being performed.

TEST APPARATUS (ΔL_w & IIC)



- 1 Concrete floating screed with 70mm thickness
- 2 Agglomerated cork resilient layer with one face dimpled - U32 Profile
- 3 Reinforced concrete slab of thickness 140mm

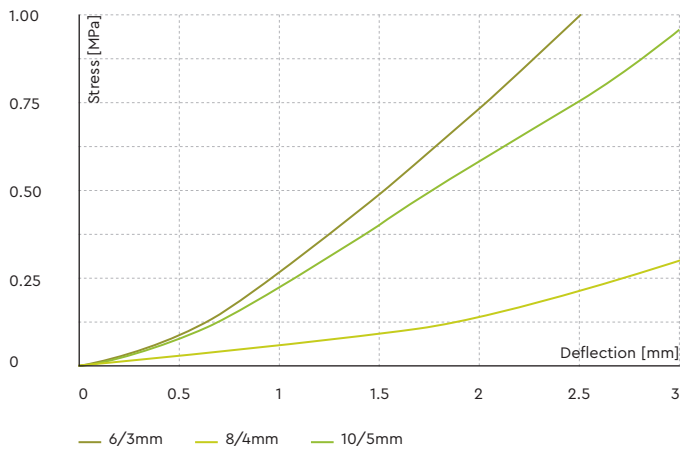
DYNAMIC STIFFNESS

Thickness (mm)	6/3	8/4	10/5
Dynamic Stiffness (MN/m ³) ①	107	86	43

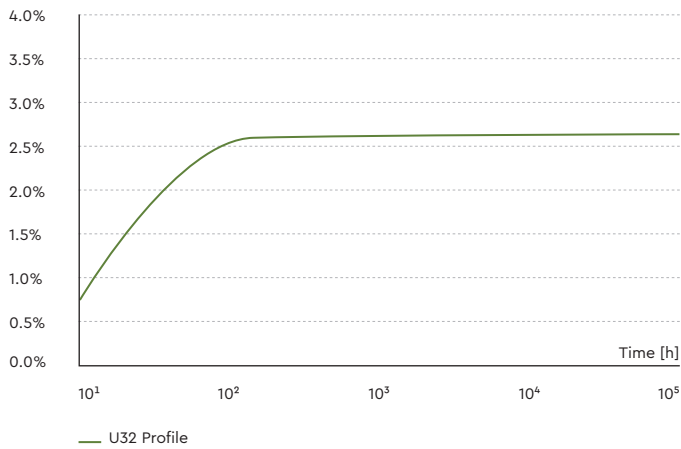
① as per ISO 9052-1:1989; ISO 7626-5:1994

PHYSICAL AND MECHANICAL PROPERTIES

LOAD DEFLECTION



CREEP DEFLECTION @ 0.0045MPa (% OF START HEIGHT)



Note: Following ISO8013-1998 measured in Cantilever Test System

INSTALLATION



- 1 Reinforced concrete slab
- 2 Foil
- 3 Agglomerated cork resilient layer - U32
- 4 Concrete floating screed
- 5 Perimeter insulation barrier
- 6 Adhesive tape

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 > -5°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.

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.

PB U32

Mini-rolls of perimeter barrier 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 desired 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. A 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.

MATERIAL DATA SHEET U32

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).