AcoustiCORK® by Amorim

MATERIAL DATA SHEET

U36

Agglomerated natural cork blended with high density PU foam and EVA for impact noise and thermal insulation

PRODUCT SPECIFICATION

"___mm resilient acoustic underscreed made of agglomerated cork and polyurethane foams (PU) with EVA for impact noise insulation of floating screeds, with a density between 370 and 500kg/m³ and an impact noise reduction ΔL_w of___ dB."

KEY FEATURES

- Impact noise reduction and thermal insulation properties
- Long-term resilience
- Negative carbon balance of -13.6kg CO_e/kg* contributes to a lower carbon footprint
- Produced from recycled and natural materials
- Light and flexible material, easy to handle

THERMAL PROPERTIES

Thermal Conductivity (W/mK)	0,0751 ①

① ASTM D297

PHYSICAL AND MECHANICAL PROPERTIES

Specific Weight (Kg/m³) ①	370–500
Tensile Strength (KPa) ②	≥200
Cp level (mm) ③	<1 ④

① ASTMF1315 ② ASTMF152 ③ ISO 092/19 ④ For both thicknesses 6/3 and 8/4
① ② ③ as per ISO 7322

ACOUSTICAL RESULTS

Thickness (mm)	6/3	8/4
ΔL_w(dB) ①	25	27
IIC (dB) ②	53	53

① as per ISO 10140-3 and ISO 717-2
② ASTM E2179-03; ASTM E492-09; ASTM E989-18; ASTM E2235-04

STANDARD DIMENSIONS

Thickness (mm)	6/3	8/4
Width (m) x Length (m)	1×10	1×10

Others sizes available upon request

FIRE CLASSIFICATION

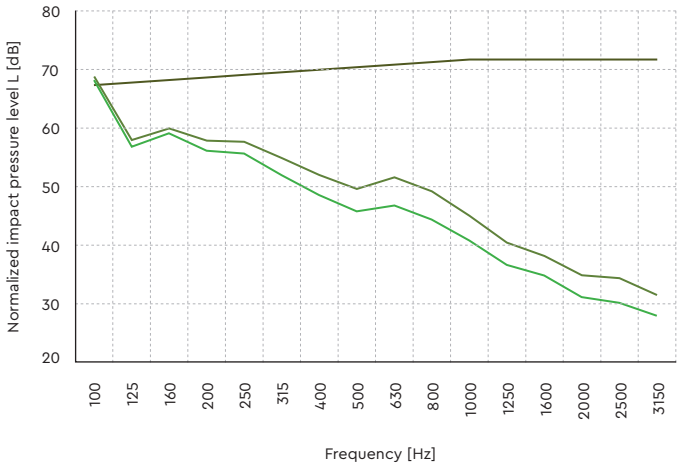
E/Efl ①

① as per EN 13501-1 and ISO 11925

*The Life Cycle Assessment study of the Acousticork U36 underscreed was conducted by Itecons, in order to determine the environmental impact of the U36 [6/3] and U36 [8/4], underscreeds produced by Amorim Cork Composites. This study considered the following life cycle modules: Extraction and processing of raw materials (A1), Transport to the factory (A2), Production (A3) and End of life (C1-C4). The LCA study was conducted in accordance with international standards EN ISO 14040, EN ISO 14044 and EN 15804, as well as the requirements specified in the RCP (Rules for Product Categorisation) documents. The study also calculated the carbon balance of these products, using a methodology supplied by Amorim Cork Composites, which takes into account both the carbon sequestered by the cork oak forest and the GHG emissions from the production stage, calculated using the methodology of the EN 15804 standard.

ACOUSTICAL RESULTS

Test procedure as per ISO 10140-1:2016; ISO 10140-3:2010; ISO 10140-3:2010/Amd.1:2015; ISO 10140-4:2010; ISO 717-2:2013



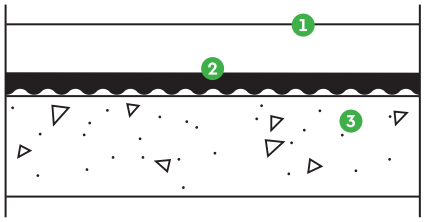
$L_{n,r}$ Normalized impact sound pressure level of the reference floor with the floor covering under test

$L_{n,r,0}$ Normalized impact sound pressure level of the Lab reference floor

Ref. Test Report	ACL 156/20
Thickness (mm)	6/3
$L_{n,r,w}$ ($C_{I,r}$) (dB)	53 (3)
ΔL_w ($C_{I,\Delta}$) (dB)	25 (-14)

Ref. Test Report	ACL 150/20
Thickness (mm)	8/4
$L_{n,r,w}$ ($C_{I,r}$) (dB)	51 (4)
ΔL_w ($C_{I,\Delta}$) (dB)	27 (-15)

TEST APPARATUS (ΔL_w)



1. Concrete floating screed with 70mm thickness
2. Agglomerated resilient layer – U36
3. Reinforced concrete slab of thickness 140mm

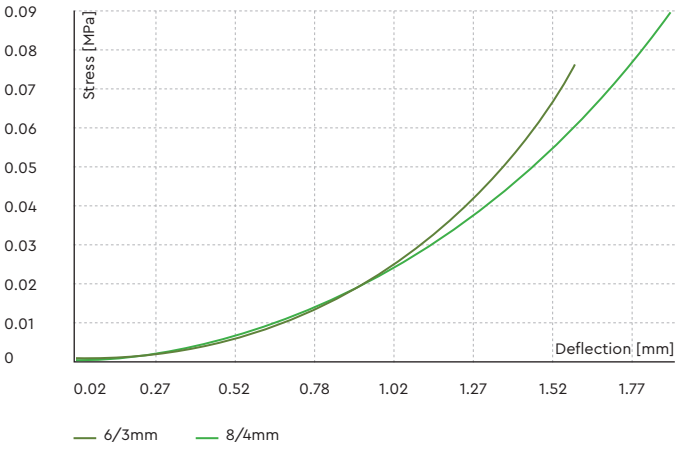
DYNAMIC STIFFNESS

Thickness (mm)	6/3	8/4
Dynamic Stiffness (MN/m³) ①	42	29

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

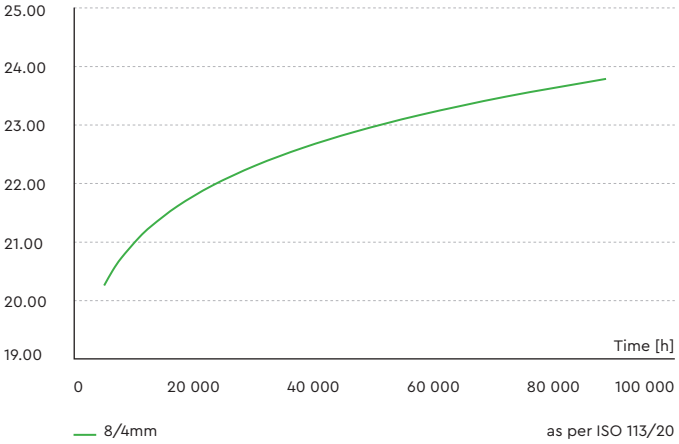
PHYSICAL AND MECHANICAL PROPERTIES

LOAD DEFLECTION



Note: Following ISO8013-1998 measured in Cantilever Test System

CREEP DEFLECTION



INSTALLATION

1. Reinforced concrete slab
2. Agglomerated cork blended with high density PU foam and EVA – U36
3. Concrete floating screed
4. Perimeter insulation barrier
5. Adhesive tape
6. Foil

PB U36

Mini-rolls of perimeter barrier available upon request.

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 / Roommoisture 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.

Installation Instruction for Acousticork U36

Unpack the Acousticork U36 at least 24h before the installation and store it in the room where the installation will take place. Cut and trim the Acousticork U36 to the desired size to fit the installation. Apply directly over the subfloor with the dimpled side down. Always ensure that material is installed to fit the application avoiding the creation of waves in the material. Dimple side of the product should face down.

Place the Acousticork U36 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 U36 should cover the entire flooring area without gaps and with joints securely taped. An waterproof membrane (ex.: Polyethylene foil) minimum 0,2 mm covering the entire flooring area MUST be installed prior to the screed. Install it, minimum 150 mm wide vertically and overlapping it, minimum 100mm. The vapour barrier should cover the entire Acousticork U34C without gaps. Never mechanically fasten the Acousticork U36 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 U36 previously installed.

Always follow manufacturers recommended installation instructions.

For detailed installation instructions, please contact us.

CE

MATERIAL DATA SHEET U36