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ACOUSTICORK
U32

MATERIAL DATASHEET

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U32
Material Data Sheet

ACOUSTICORK

FLOATING SCREED

- 100% Natural and Sustainable Product
- Impact Noise Reduction and Thermal Insulation Properties
- Very easy to Handle and Long Term Resilience
- Very Flexible

PRODUCT DESCRIPTION
Agglomerated cork resilient layer for impact noise insulation of floating screed.
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THERMAL PROPERTIES
Thermal Conductivity: 0,04 W/mK (1)

(1) ISO 8301

PHYSICAL AND MECHANICAL

Specific Weight (1)	Tensile Strength (2)	Compressibility at 0,7MPa (3)	Recovery after 0,7MPa (3)
150 - 220 Kg/m ^{3}	38 MN/m ^{3}	>200 KPa	>70%

(1) ASTM F1315 • (2) ISO 9052-1 & ISO 7626-5 • (3) ASTM F152 • (3) ASTM F36

ACOUSTICAL RESULTS

Thickness (mm)	ΔL_w (dB) (1)	IIC (dB) (2)
4	19	47
4/2	19	47
6	20	48
6/3	20	48
8	-	-
8/4	21	42
10	20	50
10/5	22	47

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

STANDARD

Thickness (mm)	4	4/2	6	6/3	8/4	10	10/5
Width (m) x Length (m)	1 x 20	1 x 30	1 x 20	1 x 20	1 x 15	1 x 15	1 x 10

Others sizes available upon request

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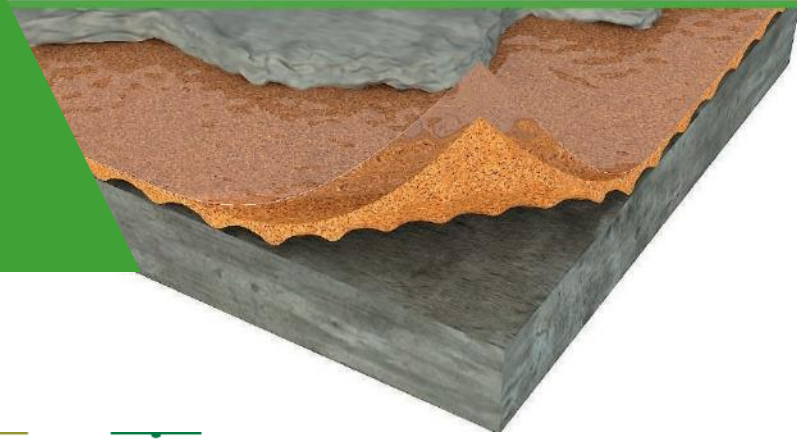
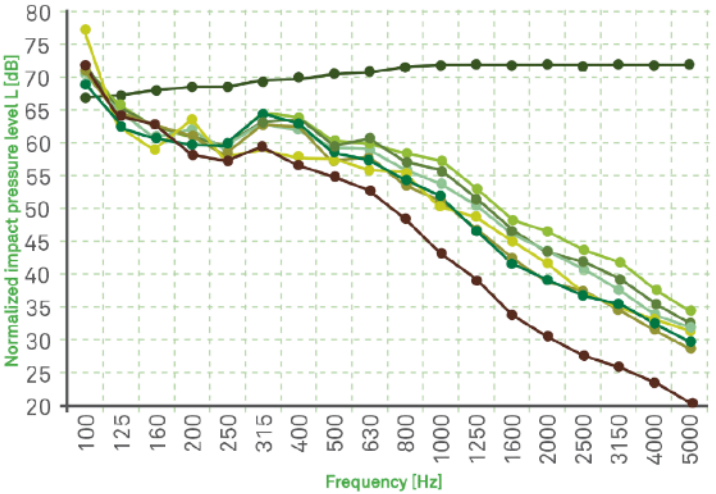
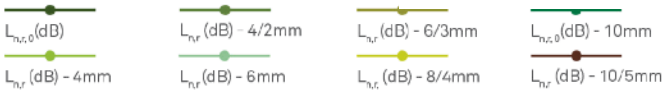


ACOUSTICAL RESULTS
Test procedure according to ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:201 standards.

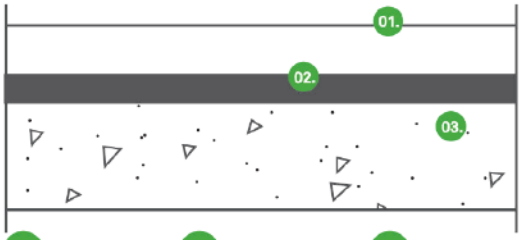




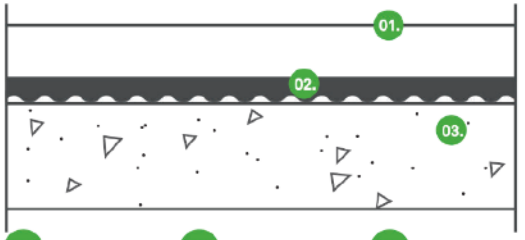
$L_{n,r}$ - Normalized impact sound pressure level of the reference floor with the floor covering under test;
$L_{n,r,0}$ - Normalized impact sound pressure level of the Lab reference floor;
ΔL_w - Impact sound pressure level reduction index of the covering under test, on a normalized floor;

Ref. Test Report	Thickness	$L_{n,r,w}$ ($C_{I,r}$)	ΔL_w ($C_{I,\Delta}$)
ACL104/15	4 mm	59 (1) dB	19 (-12) dB
ACL041/14	4/2 mm	59 (1) dB	19 (-12) dB
ACL105/15	6 mm	58 (2) dB	20 (-13) dB
ACL042/14	6/3 mm	58 (1) dB	20 (-12) dB
ACU242/09	8/4 mm	57 (7) dB	21 (-18) dB
ACL106/15	10 mm	58 (0) dB	20 (-11) dB
ACL107/15	10/5 mm	56 (3) dB	22 (-14) 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

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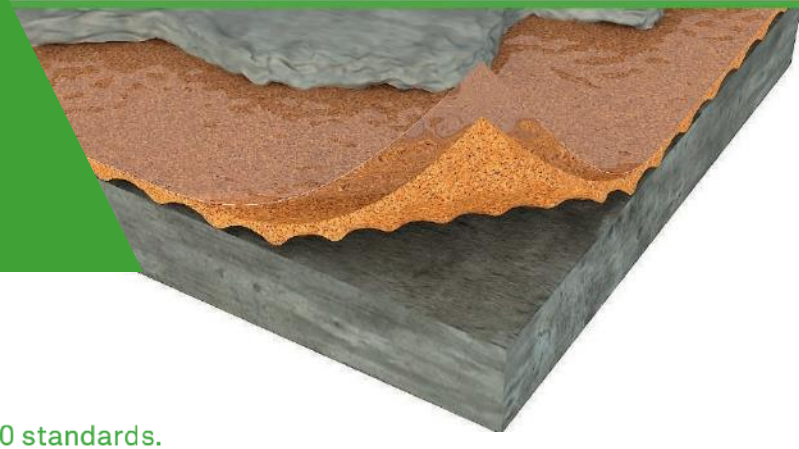
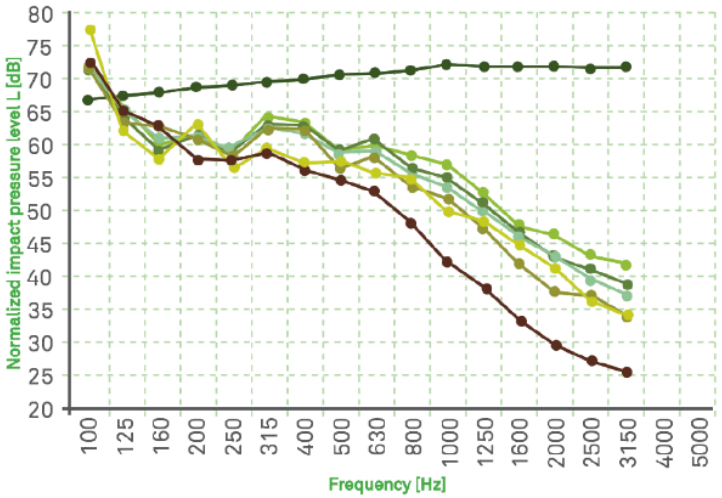
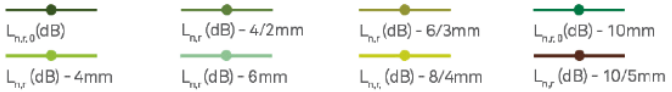


ACOUSTICAL RESULTS

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.

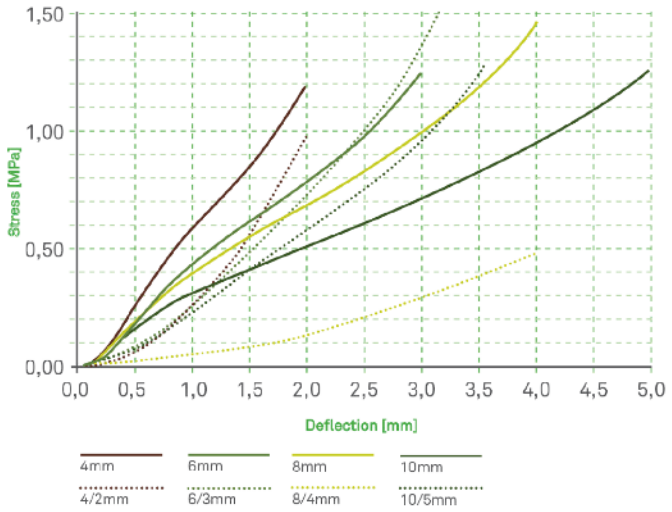




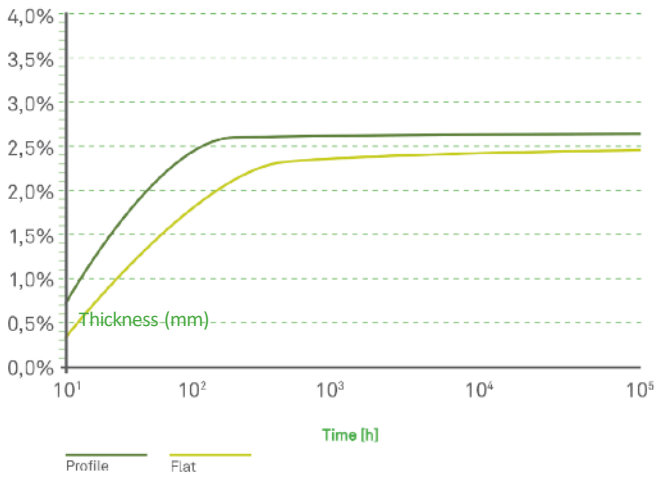
L_{nr} - Normalized impact sound pressure level of the reference floor with the floor covering under test;
$L_{nr,0}$ - Normalized impact sound pressure level of the Lab reference floor;

Thickness	IIC_c
4 mm	47 dB
4/2 mm	47 dB
6 mm	48 dB
6/3 mm	48 dB
8/4 mm	42 dB
10 mm	50 dB
10/5 mm	47 dB

LOAD DEFLECTION



CREEP DEFLECTION @0,0045MPa (% OF START HEIGHT)



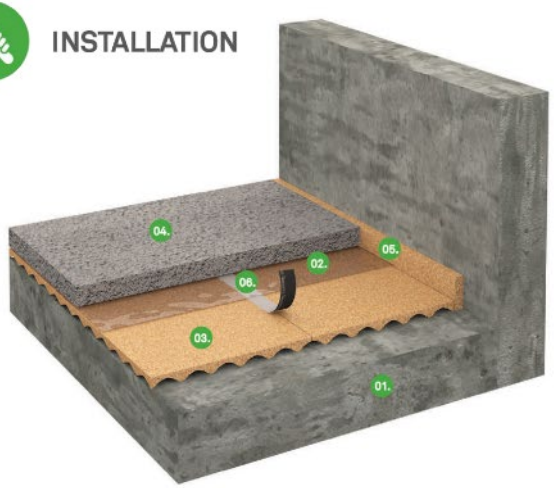
Note: Following ISO8013-1998 measured in Cantilever Test System

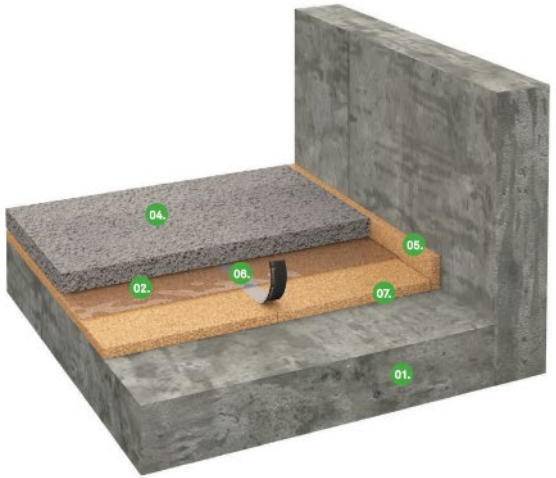
DYNAMIC STIFFNESS

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

Thickness (mm)	4mm	4/2mm	6mm	6/3mm	8mm	8/4mm	10mm	10/5mm
Dynamic Stiffness (MN/m3)	94	70	88	50	82	48	72	38

INSTALLATION





1. Reinforced concrete slab
2. Vapor Barrier
3. Agglomerated cork resilient layer with one face dimpled U 32 Profile
4. Concrete floating screed
5. Perimeter insulation barrier
6. Adhesive Tape
7. Agglomerated cork resilient layer – U 32

GENERAL INSTALLATION INSTRUCTION

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 manufactures.

Rooms 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.

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 the Acousticork U32 to 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. Polyethyelene 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 & 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

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IAC Acoustics Thailand Co., Ltd.
6/54-56, Thanon Poemsin Soi 42,
Ongern - Sai Mai Bangkok 10220 Thailand
Ph: (+66) 02-1012827 | Email: info@iac-acoustics-thailand.com

iac-acoustics-thailand.com

IAC has worldwide offices and manufacturing plants in the UK, Australia, Canada, China, Malaysia, Indonesia, Thailand, Philippines Denmark, France, Germany, Italy, Spain, UAE - Dubai, USA Houston, USA Lincoln, USA - New York.