

ACOUSTI**CORK**



AMORIM  
CORK COMPOSITES

# Reinventing construction

Sustainable  
acoustic  
insulation



2017 EDITION





## Construction

# Cork, an exceptional raw material

Cork is commonly described as being the bark of the cork oak (*Quercus Suber L.*), which means that it is the 100% natural plant tissue that covers its trunk and branches.

It consists of a honeycomb-like structure of microscopic cells filled with an air-like gas and coated mainly with suberin and lignin. One cubic centimetre of cork contains about 40 million cells.

Cork is also known as the “nature’s foam” due to its alveolar structure. It has a closed cell structure making it lightweight, airtight and watertight, resistant to acids, fuels and oils, and impervious to rotting.

It is sustainably harvested by specialized professionals without damaging the trunk, meaning that the tree itself lives to grow another bark layer that, in time, will be harvested once again. Over the course of its lifetime, which on average lasts 200 years, it may be stripped around 17 times meaning that cork is not only a natural material, but also a renewable and recyclable one.



cork cell microscopic view



**Excellent acoustic insulator**



**Excellent thermal insulator**



**Good resilience, excellent compressibility and recovery**



**Extremely light and buoyant**



**100% natural, reusable and recyclable**





## Efficiency, Resilience and Durability

**ACOUSTICORK** natural base materials for demanding applications

Amorim Cork Composites specific compound formulations for acoustic insulation and vibration control allow creating highly insulating or dampening materials able to comply with a wide range of environmental conditions and chemical resistances.

The combination of cork granules with diverse polymers provides added characteristics to different compounds or use as acoustic or vibration control materials.

**ACOUSTICORK** maximises energy efficiency

Cork absorbs energy due to its unique compressibility and recovery characteristics yielding higher loss factors that are essential for the dampening function, while its extremely low Poisson Ratio improves the behaviour of such material in dynamic loading applications.



## ITECONS attests Acousticork's Performance

[www.itecons.uc.pt](http://www.itecons.uc.pt)



### RESEARCH

ITECONS - Institute for Research and Technological Development for Construction, Energy, Environment and Sustainability is a non-profit organization dedicated to providing a dynamic knowledge interface between the scientific community and industry.

It has over 50 associate members, including businesses, municipal ties and other research institutions.

### TECHNICAL ASSESSMENT BODY

ITECONS has been accredited by the Portuguese Accreditation Institute to perform over 220 different tests. It operates a certified quality management system, and is a notified body - Testing Laboratory - to perform CE marking. As a Technical Assessment Body, ITECONS is also able to support industry by issuing European Technical Assessments to allow CE marking.

### TECHNICAL EXPERTISE

ITECONS supports companies in their development of new materials and construction systems by helping in the conception, design, characterization and testing stages. Expert consulting activities in construction sciences also includes the detection of construction pathologies in buildings, civil engineering structures and roads.

Another service provided by the institute is structural safety assessment and monitoring, looking to identify weaknesses and propose corrective measures to improve structural behaviour.

By establishing multiple partnerships with industry and academia, ITECONS has contributed crucially to meeting Europe's societal challenges in the fields of construction, energy, environment and sustainability.

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# ACOUSTICORK

SUSTAINABLE  
ACOUSTIC  
INSULATION

Underlay

# 01

Underlay





# Underlay

**Acousticork** has solutions for different types of final flooring.

Underlay					
		T22	T61*	T66	T85*
Non Glued Laminate	Thickness	-	2mm	3mm	2mm
	ΔLW	-	20dB	19dB	19dB
	IIC	-	54dB	47dB	49dB
Glued Down Wood	Thickness	4mm	3mm	3mm <small>perforated</small>	2mm
	ΔLW	20dB	26dB	18dB	14dB
	IIC	49dB	59dB	51dB	49dB
Ceramic (Or Natural Stone)	Thickness	-	5mm	3mm	2mm
	ΔLW	-	16dB	16dB	12dB
	IIC	-	50dB	51dB	46dB
LVT	Thickness	-	-	3mm	1,6mm    2mm
	ΔLW	-	-	19dB	17dB    -
	IIC	-	-	51dB	52dB    54dB

\* Tested according to MMFA/EPLF requirements



## T22

### Material Data Sheet

GLUED DOWN WOOD FLOORS



$\Delta L_w = 20\text{dB}$

**100% Recycled Material**  
**Impact Noise Reduction and**  
**Thermal Insulation Properties**  
**High Durability and Long Term Resilience**  
**High Performance with Reduced Thickness**



#### PRODUCT DESCRIPTION

Agglomerated recycled rubber underlay for impact noise and thermal insulation.



#### THERMAL PROPERTIES

Thermal Conductivity: 0,140 W/mK<sup>(1)</sup>

<sup>(1)</sup>ISO 8301



#### PHYSICAL AND MECHANICAL PROPERTIES

Specific Weight <sup>(1)</sup>	Tensile Strength <sup>(2)</sup>	Compressibility at 0,7MPa <sup>(3)</sup>	Recovery after 0,7MPa <sup>(3)</sup>
650 - 750 Kg/m <sup>3</sup>	> 350 KPa	20%	> 80%

<sup>(1)</sup>ASTM F1315 • <sup>(2)</sup>ASTM F152 • <sup>(3)</sup>ASTM F36



#### ACOUSTICAL RESULTS

Flooring	Thickness (mm)	$\Delta L_w$ (dB) <sup>(1)</sup>	IIC (dB) <sup>(2)</sup>
Glued Down Wood	4	20	49

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



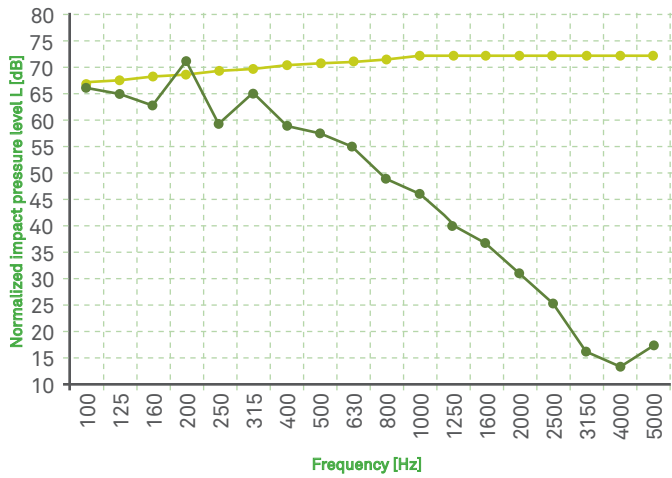
#### STANDARD DIMENSIONS

Thickness (mm)	4
Width (m) x Length (m)	1 x 10

Others sizes available upon request

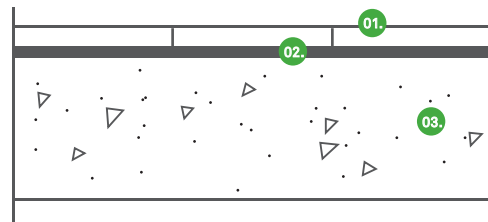


**ACOUSTICAL RESULTS**  
 Test procedure according to ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010 and ISO 717-2:2013 standards.



$L_{n,r,0}$  (dB)  
 $L_{n,r}$  (dB) - 4mm

**TEST APPARATUS ( $\Delta L_w$  & IIC)**

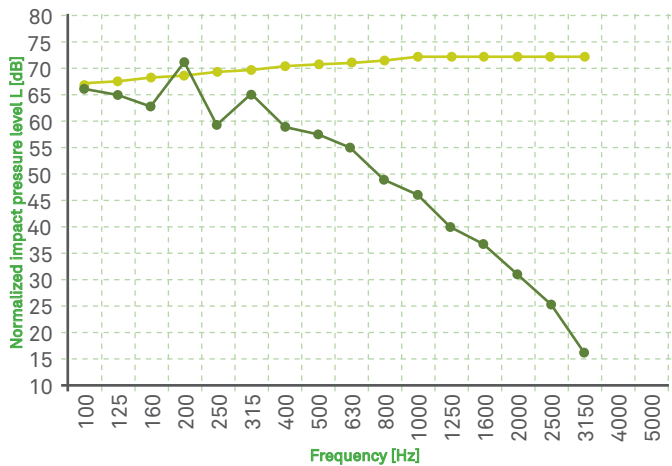


- 01.** Floor covering composed by glued down wood
- 02.** Agglomerated recycled rubber resilient layer - T2
- 03.** Reinforced concrete slab of thickness 140mm

$L_{n,r}$  - 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;  
 $\Delta L_w$  - Impact sound pressure level reduction index of the covering under test, on a normalized floor;

Ref. Test Report	Thickness	Flooring	$L_{n,r,w}(C_{l,r})$	$\Delta L_w(C_{l,\Delta'})$
ACU 128/10	4 mm	Glued Down Wood	58 (1) dB	20 (-12) 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.



$L_{ref}$  (dB)  
 $L_{ref,c}$  (dB) - 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;

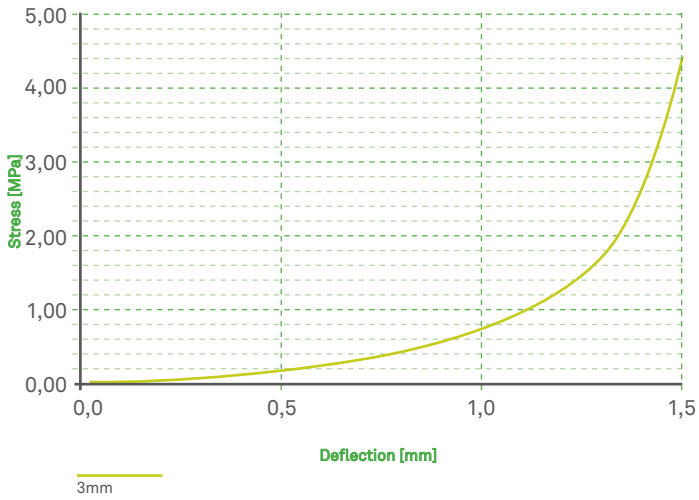
Thickness	Flooring	IIC <sub>c</sub>
4mm	Glued Down Wood	49dB



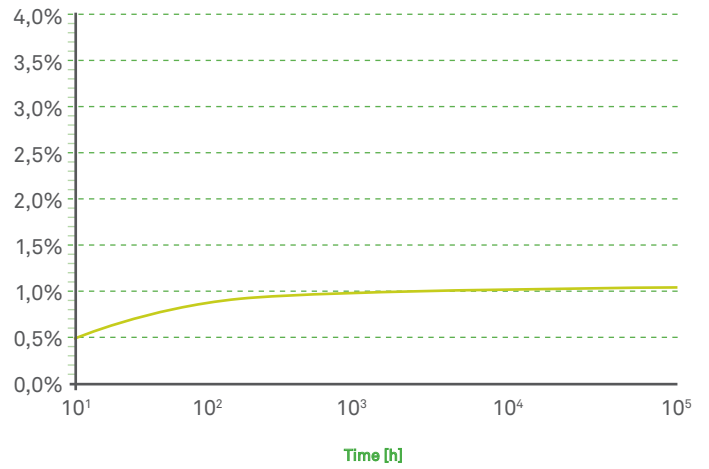


## PHYSICAL AND MECHANICAL PROPERTIES

### LOAD DEFLECTION



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



Note: Following ISO8013-1998 measured in Cantilever Test System

### DYNAMIC STIFFNESS

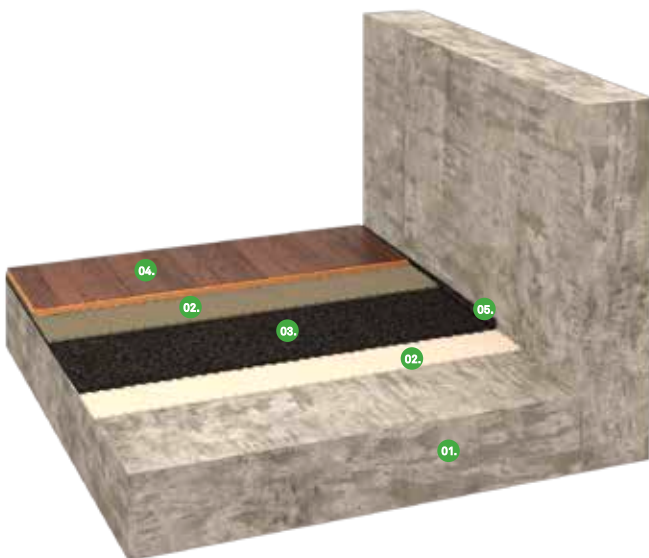
Test procedure according ISO 9052-1 and ISO 7626-5 standards.

Thickness (mm)	Dynamic Stiffness (MN/m <sup>3</sup> )
4	54



## INSTALLATION

### GLUED FLOORS



01.

Reinforced concrete slab

02.

Adhesive

03.

Agglomerated recycled rubber resilient layer - T22

04.

Floor covering composed by glued down wood

05.

Perimeter insulation barrier



# T22

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## UNDERLAY

### 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.

### Installation Instruction for Acousticork T22

Unpack the Acousticork T22 at least 24h before the installation and store it in the room where the installation will take place. Cut the T22 to desired length and install directly over the entire floor pulled 30mm up the walls with crown of the rolled materials up (Acousticork label side down), removing all trapped air. After completion, the T22 should cover the entire flooring area without gaps and with joints butted tight and preferably taped.

### Final Flooring

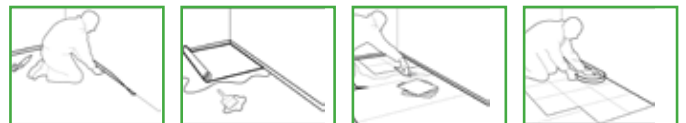
Always follow manufacturers recommended installation instructions.

### Recommended Adhesives

Wood floor to Acousticork: Water-Based Emulsion/ Polyurethane Glue  
 Acousticork to slab/screed: Water-Based Emulsion/ Acrylic Adhesives.

### Application Process

#### 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 T22 to the flooring floor as this will severely diminish its acoustical value.

For detailed installation instructions, please contact us.



## T61

### Material Data Sheet

NON GLUED LAMINATE FLOORS		$\Delta L_w = 20\text{dB}$	<p><b>100% Natural and Sustainable Product</b></p> <p><b>Impact Noise Reduction and Thermal Insulation Properties</b></p> <p><b>High Durability and Long Term Resilience</b></p> <p><b>High Performance with Reduced Thickness</b></p> <p><b>Tested according to MMFA/EPLF requirements Group 1</b></p>
GLUED DOWN WOOD FLOORS		$\Delta L_w = 26\text{dB}$	
GLUED DOWN WOOD FLOORS PERFORATED		$\Delta L_w = 18\text{dB}$	
CERAMIC OR NATURAL STONE FLOORS		$\Delta L_w = 16\text{dB}$	

**PRODUCT DESCRIPTION**  
Agglomerated cork underlay for impact noise and thermal insulation.

**THERMAL PROPERTIES**  
Thermal Conductivity: 0,04 W/mK <sup>(1)</sup>  
<sup>(1)</sup>ISO 8301

**PHYSICAL AND MECHANICAL PROPERTIES**

Specific Weight <sup>(1)</sup>	Tensile Strength <sup>(1)</sup>	Compression at 0,7MPa <sup>(1)</sup>	Recovery after 0,7MPa <sup>(1)</sup>
150 - 200 Kg/m <sup>3</sup>	> 200 KPa	30%	> 70%

<sup>(1)</sup>ISO 7322

**ACOUSTICAL RESULTS**

Flooring	Thickness (mm)	$\Delta L_w$ (dB) <sup>(1)</sup>	IIC (dB) <sup>(2)</sup>
Non Glued Laminate	2	20	54
Glued Down Wood	3	26	59
	3 perforated	18	51
Ceramic (or Natural Stone)	5	16	50

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

**STANDARD DIMENSIONS**

Thickness (mm)	2	3	3 perforated	5
Width (m) x Length (m)	1 x 10	1 x 10	0,5 x 10	1 x 10

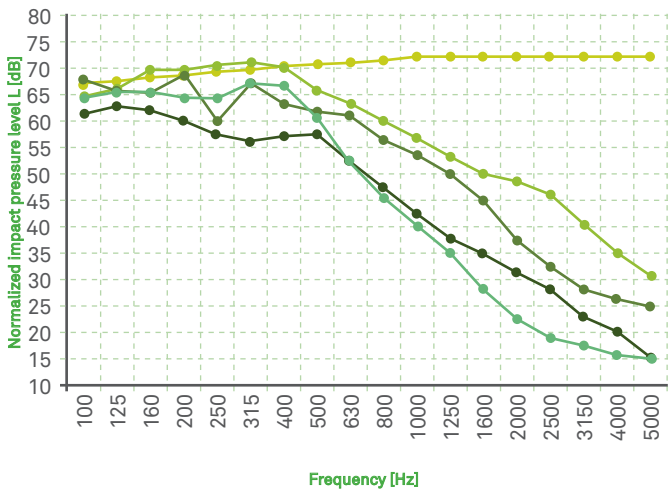
Others sizes available upon request



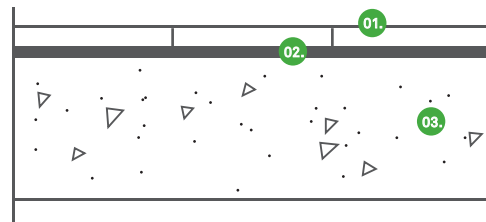


## ACOUSTICAL RESULTS

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



### TEST APPARATUS ( $\Delta L_w$ & IIC)



- 01. Floor covering composed by glued down wood, non glued laminate floor or ceramic or natural stone tiles
- 02. Agglomerated cork resilient layer - T61
- 03. Reinforced concrete slab of thickness 140mm

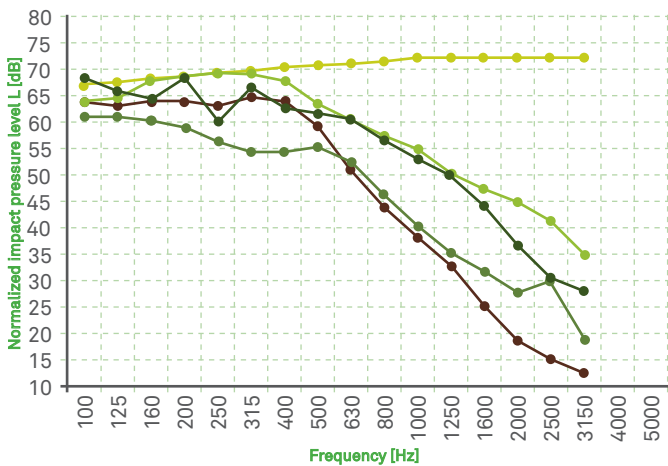
$L_{n,r}$  - Normalized impact sound pressure level of the reference floor with the floor covering under test;  
 $L_{n,r,0}$  - Normalized impact sound pressure level of the Lab reference floor;  
 $\Delta L_w$  - Impact sound pressure level reduction index of the covering under test, on a normalized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

Ref. Test Report	Thickness	Flooring	$L_{n,r,w}(C_{l,r})$	$\Delta L_w(C_{l,\Delta})$
SRLC/06/5L/3676/1a	2 mm	Non Glued Laminate	58 (0) dB	20 (-11) dB
SRLC/06/5L/3676/1a	3 mm	Glued Down Wood	52 (1) dB	26 (-12) dB
ACL034/16	3 mm perforated	Glued Down Wood	60 (0) dB	18 (-11) dB
SRLC/06/5L/3676/1a	5 mm	Ceramic (or Natural Stone)	62 (0) dB	16 (-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.



$L_{ref}$  - 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;

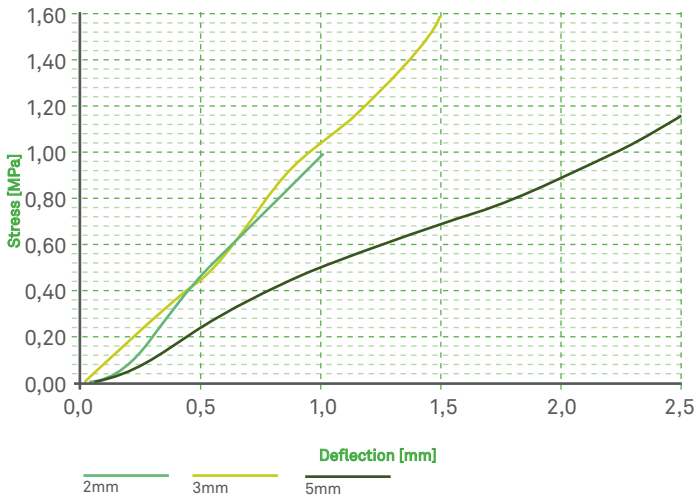
Thickness	Flooring	IIC <sub>c</sub>
2 mm	Laminate	54 dB
3 mm	Glued Down Wood	59 dB
3 mm perforated	Glued Down Wood	51 dB
5 mm	Ceramic (or Natural Stone)	50 dB



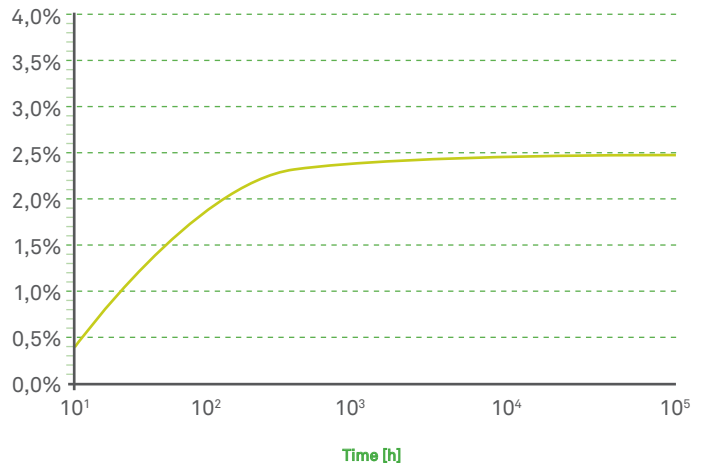


## PHYSICAL AND MECHANICAL PROPERTIES

### LOAD DEFLECTION



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



Note: Following ISO8013-1998 measured in Cantilever Test System

### DYNAMIC STIFFNESS

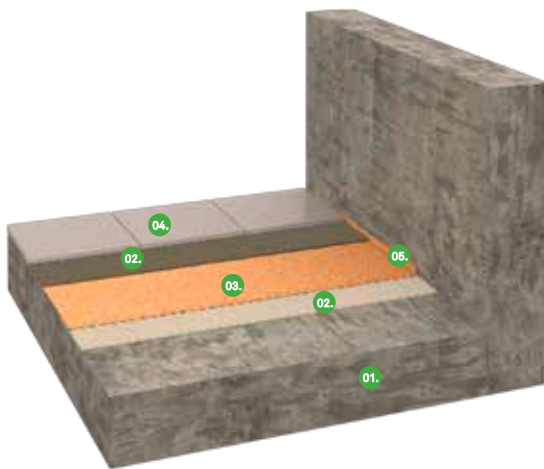
Test procedure according ISO 9052-1 and ISO 7626-5 standards.

Thickness (mm)	Dynamic Stiffness (MN/m <sup>3</sup> )
2	98
3	96
5	93



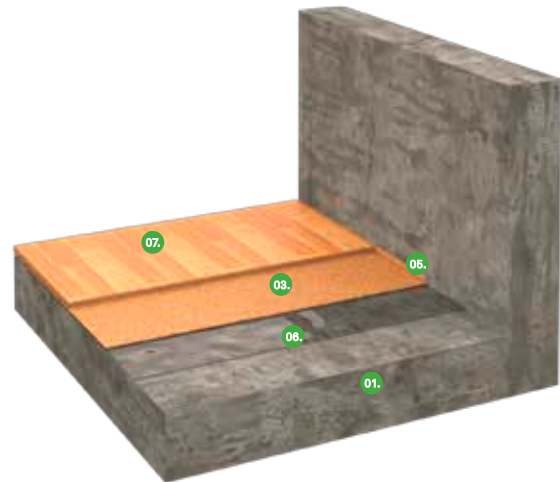
## INSTALLATION

### GLUED FLOORS



- 01.** Reinforced concrete slab
- 02.** Adhesive
- 03.** Agglomerated cork resilient layer - T61
- 04.** Floor covering composed by glued down wood, ceramic or nature stone
- 05.** Perimeter insulation barrier

### NON GLUED FLOORS



- 06.** Vapor barrier
- 07.** Floor covering composed by non glued laminate floor

NON GLUED LAMINATE FLOORS		$\Delta L_w = 20\text{dB}$
GLUED DOWN WOOD FLOORS		$\Delta L_w = 26\text{dB}$
GLUED DOWN WOOD FLOORS PERFORATED		$\Delta L_w = 18\text{dB}$
CERAMIC OR NATURAL STONE FLOORS		$\Delta L_w = 16\text{dB}$ 

# T61

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## UNDERLAY

### 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 T61.

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 T61

Unpack the Acousticork T61 at least 24h before the installation and store it in the room where the installation will take place. Cut the T61 to desired length and install directly over the entire floor pulled 30mm up the walls with crown of the rolled materials up (Acousticork label side down), removing all trapped air. After completion, the T61 should cover the entire flooring area without gaps and with joints butted tight and preferably taped.

Tested according to MMFA/EPLF requirements Group 1

### 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;



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.



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 T61 to the flooring floor as this will severely diminish its acoustical value.



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).

[www.amorimcorkcomposites.com](http://www.amorimcorkcomposites.com)

## T66 <sup>CE</sup>

### Material Data Sheet

NON GLUED LAMINATE FLOORS		$\Delta L_w = 19\text{dB}$
GLUED DOWN WOOD FLOORS		$\Delta L_w = 16\text{dB}$
CERAMIC OR NATURAL STONE FLOORS		$\Delta L_w = 16\text{dB}$
LVT		$\Delta L_w = 19\text{dB}$

Produced from Recycled and Natural Materials  
 Impact Noise Reduction and  
 Thermal Insulation Properties  
 High Durability and Long Term Resilience  
 High Performance with Reduced Thickness



#### PRODUCT DESCRIPTION

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



#### THERMAL PROPERTIES

Thermal Conductivity: 0,08 W/mK <sup>(1)</sup>

<sup>(1)</sup>ISO 8301



#### PHYSICAL AND MECHANICAL PROPERTIES

Specific Weight <sup>(1)</sup>	Tensile Strength <sup>(1)</sup>	Compression at 0,7MPa <sup>(1)</sup>	Recovery after 0,7MPa <sup>(1)</sup>
600 - 700 Kg/m <sup>3</sup>	> 800 KPa	15%	> 75%

<sup>(1)</sup>ISO 7322



#### ACOUSTICAL RESULTS

Flooring	Thickness (mm)	$\Delta L_w$ (dB) <sup>(1)</sup>	IIC (dB) <sup>(2)</sup>
Non Glued Laminate	3	19	47
Glued Down Wood		16	50
Ceramic (or Natural Stone)		16	51
LVT		19	51

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



#### STANDARD DIMENSIONS

Thickness (mm)	3
Width (m) x Length (m)	1 x 10

Others sizes available upon request



#### CASTOR CHAIR RESISTANCE

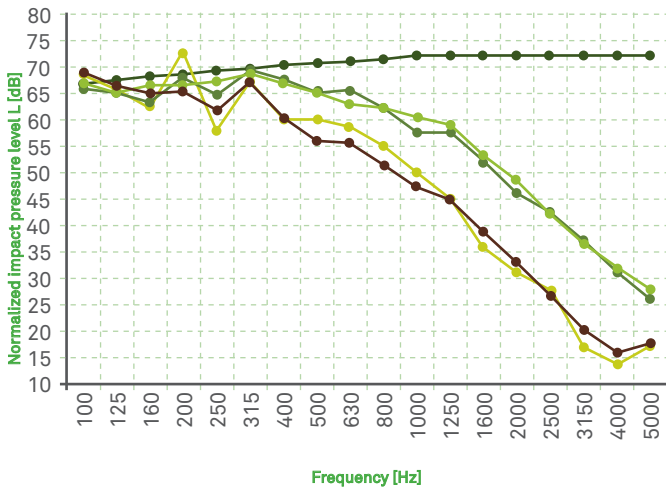
Pass <sup>(1)</sup>

<sup>(1)</sup>EN425-2002



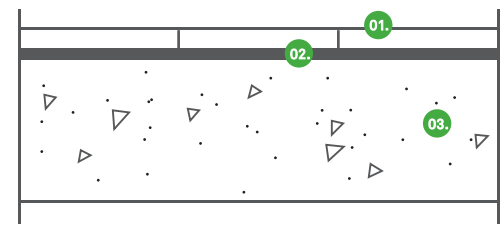


**ACOUSTICAL RESULTS**  
 Test procedure according to ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010 and ISO 717-2:2013 standards.



$L_{n,r,0}$  (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  
 \*Glued Down Wood

**TEST APPARATUS ( $\Delta L_w$  & IIC)**

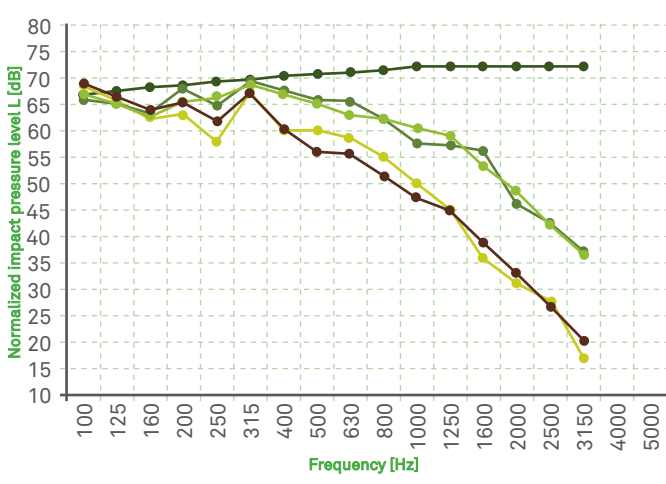


- 01.** Floor covering composed by glued down wood, non glued laminate floor or ceramic or natural stone tiles
- 02.** Agglomerated cork and recycled rubber resilient layer - T66
- 03.** Reinforced concrete slab of thickness 140mm

$L_{n,r}$  - 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;  
 $\Delta L_w$  - Impact sound pressure level reduction index of the covering under test, on a normalized floor;

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

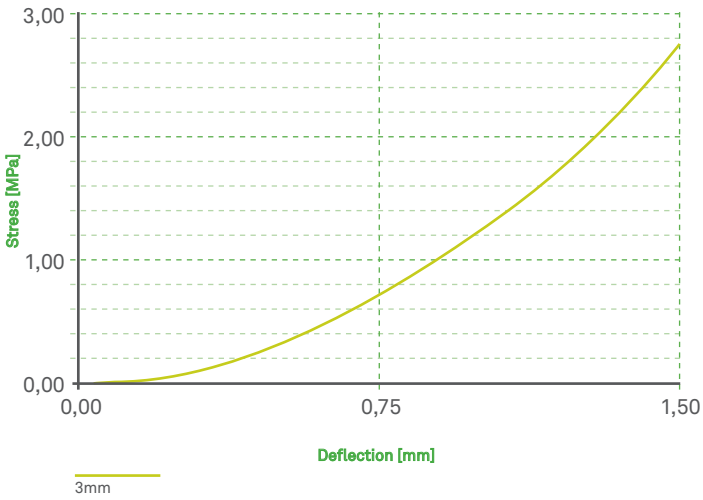
$L_{n,r}$  - Normalized impact sound pressure level of the reference floor with the floor covering under test;  
 $L_{n,r,0}$  - Normalized impact sound pressure level of the Lab reference floor;

Thickness	Flooring	IIC <sub>c</sub>
3 mm	Non Glued Laminate	47 dB
	Glued Down Wood	50 dB
	Ceramic (or Natural Stone)	51 dB
	LVT	51 dB

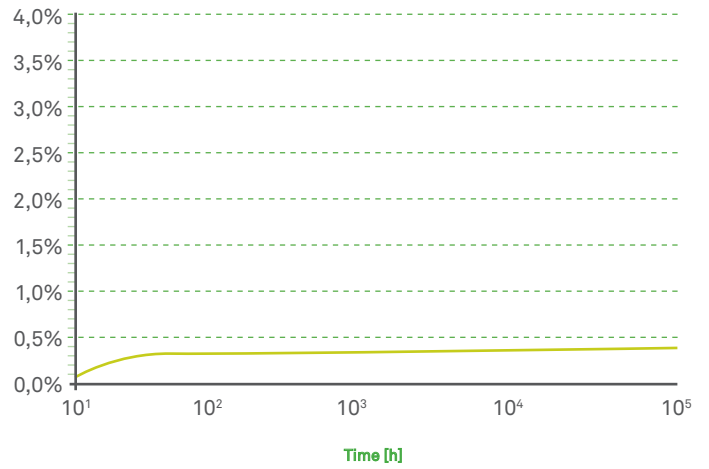


## PHYSICAL AND MECHANICAL PROPERTIES

### LOAD DEFLECTION



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



Note: Following ISO8013-1998 measured in Cantilever Test System

### DYNAMIC STIFFNESS

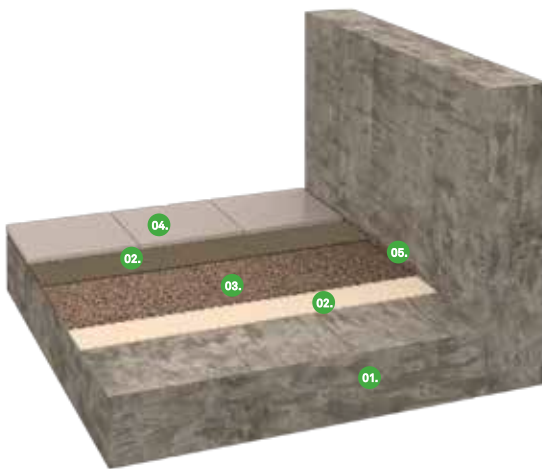
Test procedure according ISO 9052-1 and ISO 7626-5 standards.

Thickness (mm)	Dynamic Stiffness (MN/m <sup>3</sup> )
3	98

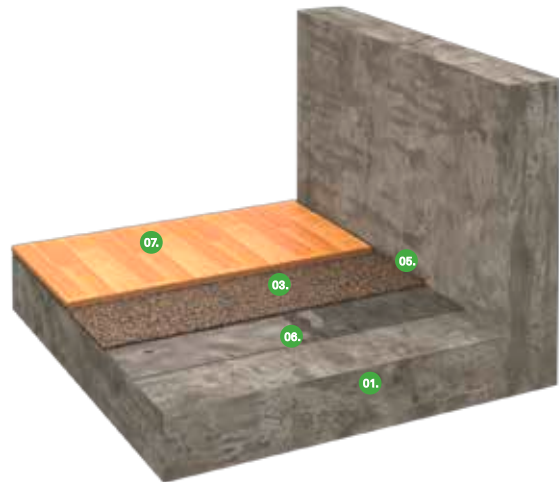


## INSTALLATION

### 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

## NON GLUED LAMINATE FLOORS



$\Delta L_w = 19\text{dB}$

## GLUED DOWN WOOD FLOORS



$\Delta L_w = 16\text{dB}$

## CERAMIC OR NATURAL STONE FLOORS



$\Delta L_w = 16\text{dB}$

## LVT



$\Delta L_w = 19\text{dB}$

# T66 UNDERLAY

### 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 (Acousticork label side down), removing all trapped air. After completion, the T66 should cover the entire flooring area without gaps and with joints butted tight and preferably taped.

### 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 severely diminish its acoustical value.

For detailed installation instructions, please contact us.



## T85

### Material Data Sheet

<b>NON GLUED LAMINATE FLOORS</b>		$\Delta L_w = 19\text{dB}$	<p><b>Produced from Recycled and Natural Materials</b></p> <p><b>Impact Noise Reduction and Thermal Insulation Properties</b></p> <p><b>High Durability and Long Term Resilience</b></p> <p><b>High Performance with Reduced Thickness</b></p> <p><b>Tested according to MMFA/EPLF requirements Group 1</b></p>
<b>GLUED DOWN WOOD FLOORS</b>		$\Delta L_w = 14\text{dB}$	
<b>CERAMIC OR NATURAL STONE FLOORS</b>		$\Delta L_w = 12\text{dB}$	
<b>LVT</b>		$\Delta L_w = 17\text{dB}$	



#### PRODUCT DESCRIPTION

Agglomerated cork with recycled polyurethane underlay for impact noise insulation.



#### THERMAL PROPERTIES

Thermal Conductivity: 0,055 W/mK <sup>(1)</sup>

<sup>(1)</sup>EN1946-2



#### PHYSICAL AND MECHANICAL PROPERTIES

Specific Weight <sup>(1)</sup>	Tensile Strength <sup>(1)</sup>	Compression at 0,7MPa <sup>(1)</sup>	Recovery after 0,7MPa <sup>(1)</sup>
230-300 kg/m <sup>3</sup>	> 100 KPa	30%	> 70%

<sup>(1)</sup>ISO 7322



#### ACOUSTICAL RESULTS

Flooring	Thickness (mm)	$\Delta L_w$ (dB) <sup>(1)</sup>	IIC (dB) <sup>(2)</sup>
Non Glued Laminate		19	49
Glued Down Wood	2	14	49
Ceramic (or Natural Stone)		12	46
LVT	1,6 2	17 -	52 54

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



#### STANDARD DIMENSIONS

Thickness (mm)	1,6	2
Width (m) x Length (m)	1 x 10	1 x 10

Others sizes available upon request



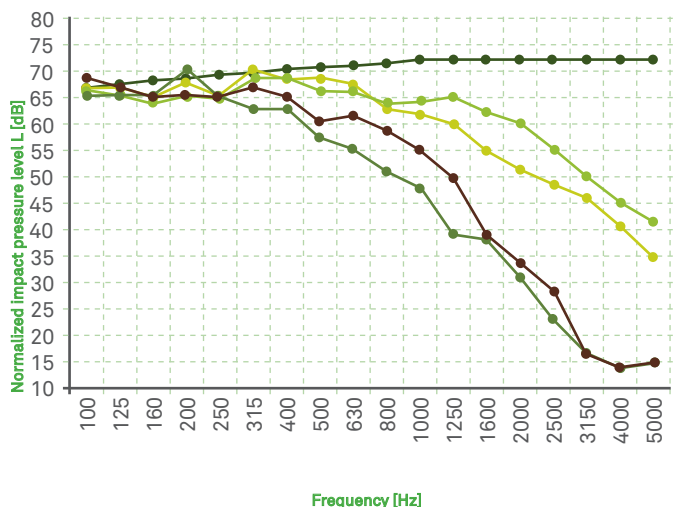
#### CASTOR CHAIR RESISTANCE

Pass (Ref. Test Report OMC 025/14) <sup>(1)</sup>

<sup>(1)</sup>EN425-2002



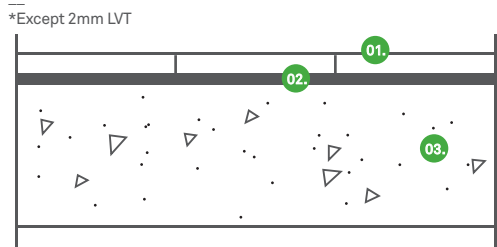
**ACOUSTICAL RESULTS**  
 Test procedure according to ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010 and ISO 717-2:2013 standards.



$L_{n,r}$  - 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;  
 $\Delta L_w$  - Impact sound pressure level reduction index of the covering under test, on a normalized floor;

$L_{n,r}$  (dB)  $L_{n,r}$  (dB) - 2mm GDW\*  $L_{n,r}$  (dB) - 1,6mm LVT  
 $L_{n,r}$  (dB) - 2mm Laminate  $L_{n,r}$  (dB) - 2mm Ceramic  
 \*Glued Down Wood

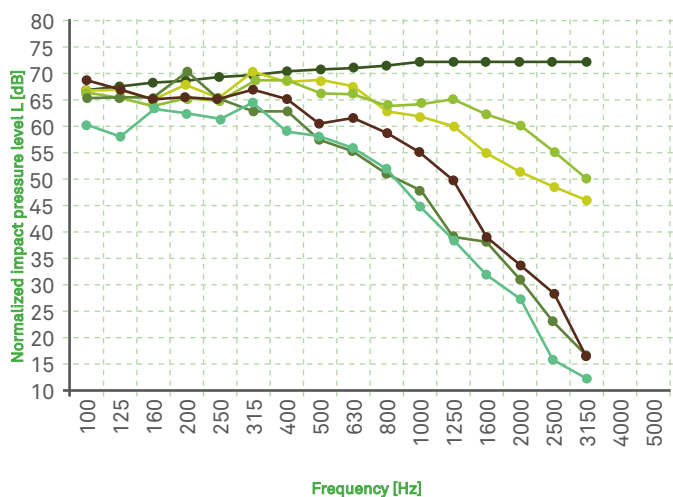
**TEST APPARATUS ( $\Delta L_w$  & IIC\*)**



- 01.** Floor covering composed by glued down wood, non glued laminate floor or ceramic or natural stone tiles
- 02.** Agglomerated cork and PU resilient layer - T85
- 03.** Reinforced concrete slab of thickness 140mm

Ref. Test Report	Thickness	Flooring	$L_{n,r,W}(C_{l,r})$	$\Delta L_w(C_{l,\Delta})$
ACL035/16	2 mm	Non Glued Laminate	59 (1) dB	19 (-12) dB
ACL 169/15		Glued Down Wood	64 (-2) dB	14 (-9) dB
ACL 125/15		Ceramic (or Natural Stone)	66 (-4) dB	12 (-7) dB
ACL036/16	1,6 mm	LVT	61 (-1) dB	17 (-10) dB

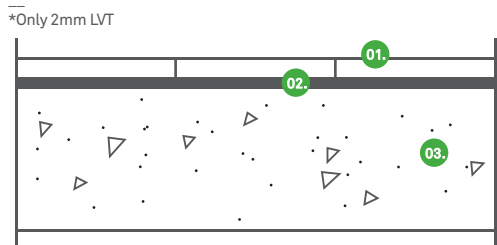
**ACOUSTICAL RESULTS**  
 Test procedure according to ISO 10140-1:2010; ISO 1040-3:2010 and ISO 10140-4:2010 standards.  
 Normalized impact sound pressure level and IIC rating determined according ASTM E492-09 and ASTM E989-06 standards.



$L_{ref}$  - 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;

$L_{ref}$  (dB)  $L_{ref,c}$  (dB) - 2mm GDW\*  $L_{ref,c}$  (dB) - 1,6mm LVT\*\*  
 $L_{ref,c}$  (dB) - 2mm Laminate  $L_{ref,c}$  (dB) - 2mm Ceramic  $L_{ref,c}$  (dB) - 2mm LVT  
 \*Glued Down Wood  
 \*\* Test Procedure according to standards ASTM E2179-03

**TEST APPARATUS (IIC\*)**



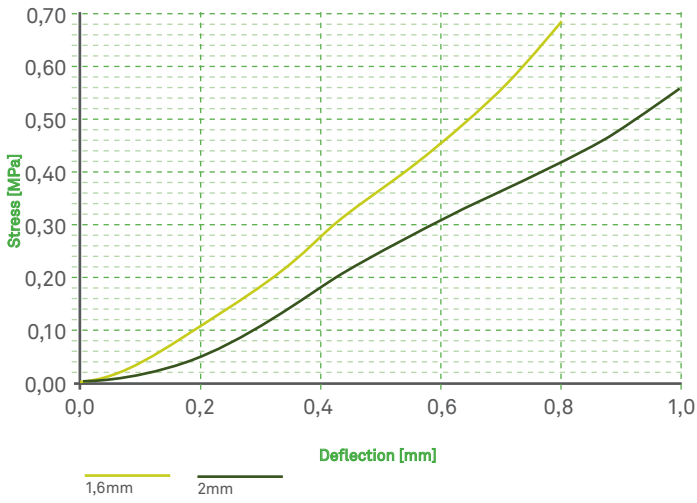
- 01.** Floor covering composed by LVT
- 02.** Agglomerated cork and PU resilient layer - T85
- 03.** Reinforced concrete slab of thickness 203mm

Thickness	Flooring	IIC <sub>c</sub>
2 mm	Non Glued Laminate	49 dB
	Glued Down Wood	49 dB
	Ceramic (or Natural Stone)	46 dB
1,6 mm	LVT	52 dB
2 mm	LVT	54 dB

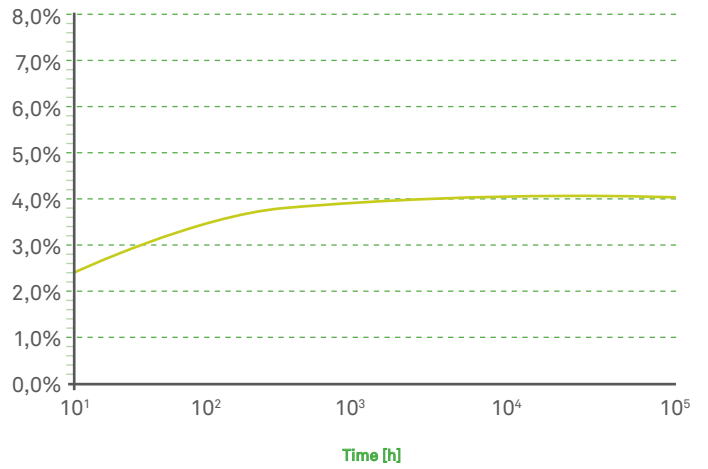


## PHYSICAL AND MECHANICAL PROPERTIES

### LOAD DEFLECTION



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



Note: Following ISO8013-1998 measured in Cantilever Test System

### DYNAMIC STIFFNESS

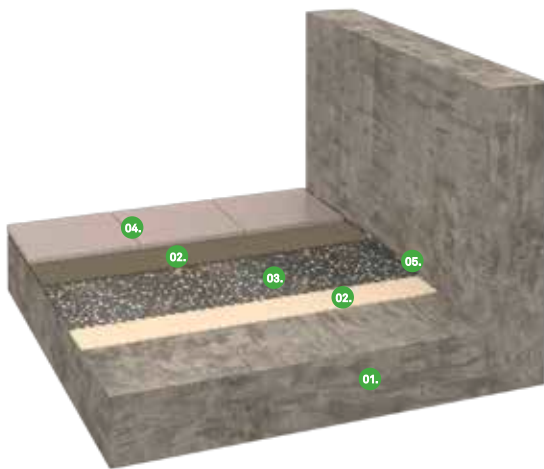
Test procedure according ISO 9052-1 and ISO 7626-5 standards.

Thickness (mm)	Dynamic Stiffness (MN/m <sup>3</sup> )
1,6	114
2	105

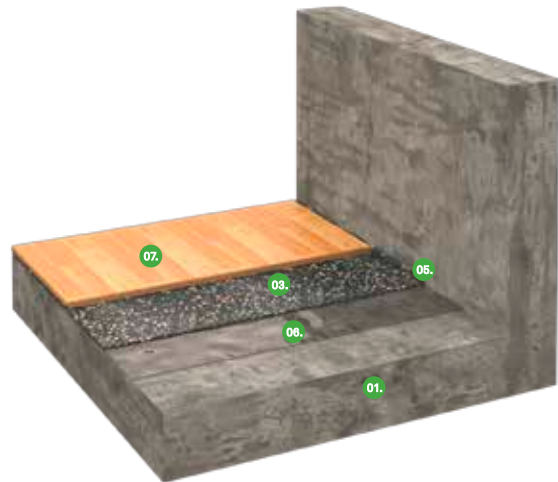


## INSTALLATION

### GLUED FLOORS



### NON GLUED FLOORS



**01.**  
Reinforced concrete slab

**02.**  
Adhesive

**03.**  
Agglomerated cork and PU resilient layer - T85

**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



#### NON GLUED LAMINATE FLOORS



$\Delta L_w = 19\text{dB}$

#### GLUED DOWN WOOD FLOORS



$\Delta L_w = 14\text{dB}$

#### CERAMIC OR NATURAL STONE FLOORS



$\Delta L_w = 12\text{dB}$

#### LVT



$\Delta L_w = 17\text{dB}$

# T85 UNDERLAY

### 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 T85.

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 T85

Unpack the Acousticork T85 at least 24h before the installation and store it in the room where the installation will take place. Cut the T85 to desired length and install directly over the entire floor pulled 30mm up the walls with crown of the rolled materials up (Acousticork label side down), removing all trapped air. After completion, the T85 should cover the entire flooring area without gaps and with joints butted tight and preferably taped.

### Final Flooring

Always follow manufacturers recommended installation instructions.

### Recommended Adhesives

Wood floor to Acousticork: Water-Based Emulsion/ Polyurethane Glue;

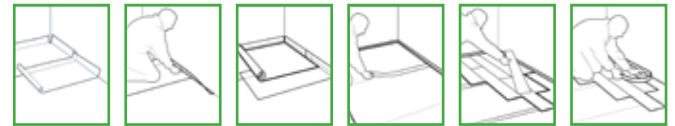
Vinyl and linoleum to Acousticork: Water-Based Emulsion/ Synthetic Resin Glue;

Ceramic to Acousticork: Flexible Cement Glue;

Acousticork to slab/screed: Water-Based Emulsion/ Acrylic Adhesives;

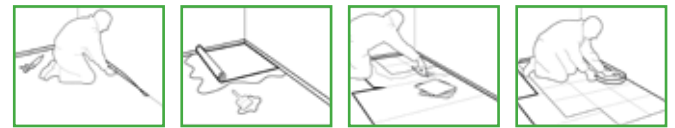
### Application Process

#### 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 T85 to the flooring floor as this will severely diminish its acoustical value.

For detailed installation instructions, please contact us.



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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# ACOUSTICORK

SUSTAINABLE  
ACOUSTIC  
INSULATION

UNDERSCREED

02

# 02

Underscreed



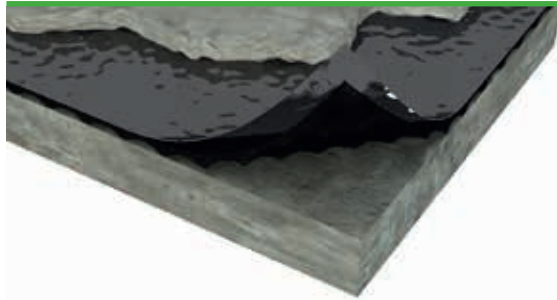
## Underscreed

**Acousticork** ensures high impact sound insulation in flooring screed applications.

Underscreed					
		U22	U32	U85	
Thickness (mm)	4	$\Delta$ LW	22dB	19dB	19dB
		IIC	50dB	47dB	51dB
4/2		$\Delta$ LW	-	19dB	23dB
		IIC	-	47dB	52dB
6		$\Delta$ LW	22dB	20dB	20dB
		IIC	50dB	48dB	51dB
6/3		$\Delta$ LW	-	20dB	23dB
		IIC	-	48dB	52dB
8		$\Delta$ LW	23dB	-	-
		IIC	51dB	-	-
8/4		$\Delta$ LW	23dB	21dB	25dB
		IIC	51dB	42dB	52dB
10		$\Delta$ LW	23dB	20dB	-
		IIC	51dB	50dB	-
10/5		$\Delta$ LW	-	22dB	27dB
		IIC	-	47dB	52dB

## U22

### Material Data Sheet



#### FLOATING SCREED

Impact Noise Reduction and Thermal Insulation Properties  
 Very Easy to Handle and Long Term Resilience  
 100% Recycled Material  
 Very Flexible



#### PRODUCT DESCRIPTION

Agglomerated recycled rubber resilient layer for impact noise insulation of floating screed.



#### THERMAL PROPERTIES

Thermal Conductivity: 0,140 W/mK <sup>(1)</sup>

<sup>(1)</sup>ISO 8301



#### PHYSICAL AND MECHANICAL PROPERTIES

Specific Weight <sup>(1)</sup>	Dynamic Stiffness <sup>(2)</sup>	Tensile Strength <sup>(3)</sup>	Recovery after 0,7MPa <sup>(4)</sup>
650 - 750 Kg/m <sup>3</sup>	20 MN/m <sup>3</sup>	> 350 KPa	> 80%

<sup>(1)</sup>ASTM F1315 • <sup>(2)</sup>ISO 9052-1 & ISO 7626-5 • <sup>(3)</sup>ASTM F152 • <sup>(4)</sup>ASTM F36



#### ACOUSTICAL RESULTS

Thickness (mm)	$\Delta L_w$ (dB) <sup>(1)</sup>	IIC (dB) <sup>(2)</sup>
4	22	50
4/2	-	-
6	22	50
6/3	-	-
8	23	51
8/4	23	51
10	23	51
10/5	-	-

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



#### STANDARD DIMENSIONS

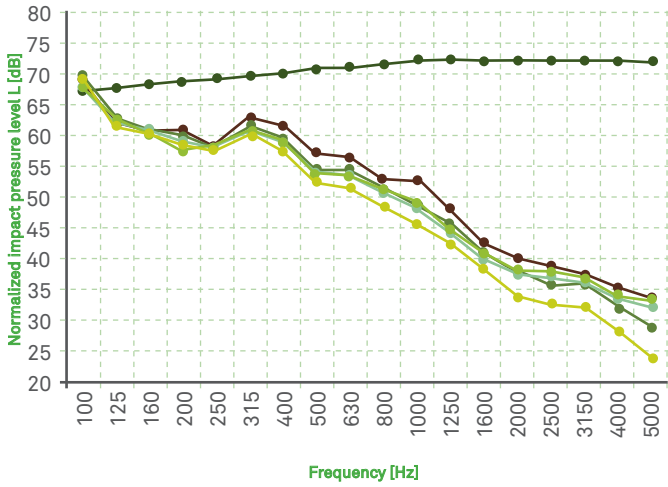
Thickness (mm)	4	4/2	6	6/3	8	8/4	10	10/5
Width (m) x Length (m)	1 x 15	1 x 30	1 x 10	1 x 20	1 x 10	1 x 15	1 x 10	1 x 10

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.

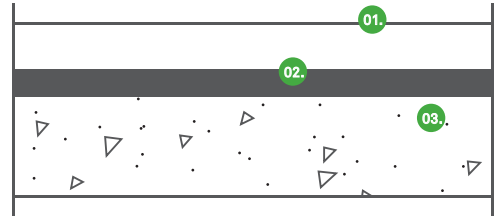


$L_{n,r,0}$  - Normalized impact sound pressure level of the reference floor with the floor covering under test;  
 $L_{n,r,0}$  - Normalized impact sound pressure level of the Lab reference floor;  
 $\Delta L_w$  - Impact sound pressure level reduction index of the covering under test, on a normalized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

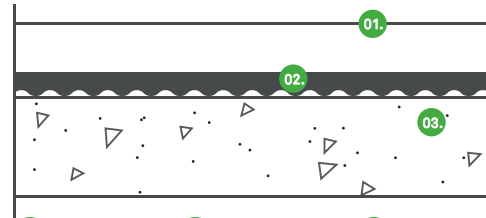
Ref. Test Report	Thickness	$L_{n,r,w}(C_{l,r})$	$\Delta L_w(C_{l,\Delta})$
ACL 102/15	4 mm	56 (2) dB	22 (-12) dB
ACL 101/15	6 mm	56 (1) dB	22 (-12) dB
ACL 099/15	8 mm	55 (1) dB	23 (-12) dB
ACL 168/15	8/4mm	55 (1) dB	23 (-12) dB
ACL 100/15	10 mm	55 (1) dB	23 (-12) dB

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

**TEST APPARATUS ( $\Delta L_w$  & IIC)**

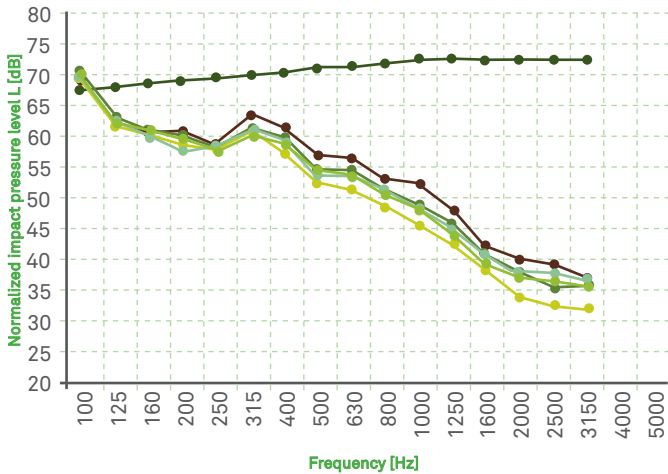


**01.** Concrete floating screed with 70mm thickness  
**02.** Agglomerated recycled rubber resilient layer - U22  
**03.** Reinforced concrete slab of thickness 140mm



**01.** Concrete floating screed with 70mm thickness  
**02.** Agglomerated recycled rubber resilient layer with one face dimpled - U22 Profile  
**03.** Reinforced concrete slab of thickness 140mm

**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.



$L_{ref}$  - 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;

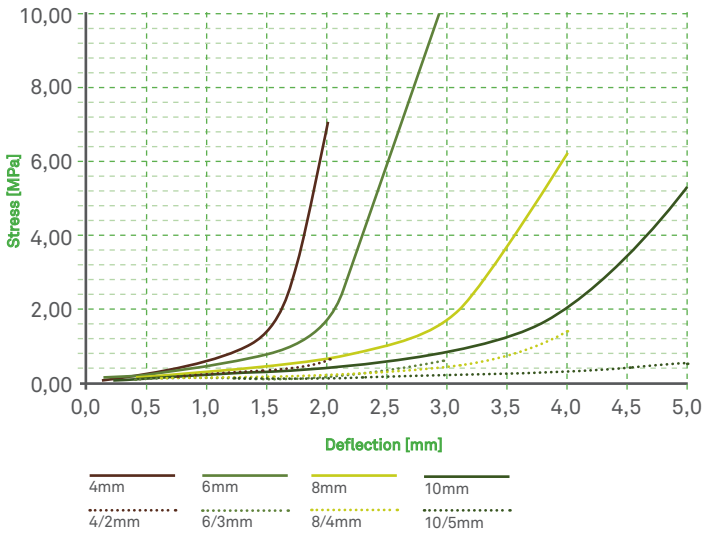
$L_{ref}$  (dB)       $L_{ref}$  (dB) - 6mm       $L_{ref}$  (dB) - 8/4mm  
 $L_{ref}$  (dB) - 4mm       $L_{ref}$  (dB) - 8mm       $L_{ref}$  (dB) - 10mm

Thickness	IIC <sub>c</sub>
4mm	50 dB
6mm	50 dB
8mm	51 dB
8/4mm	51 dB
10mm	51 dB

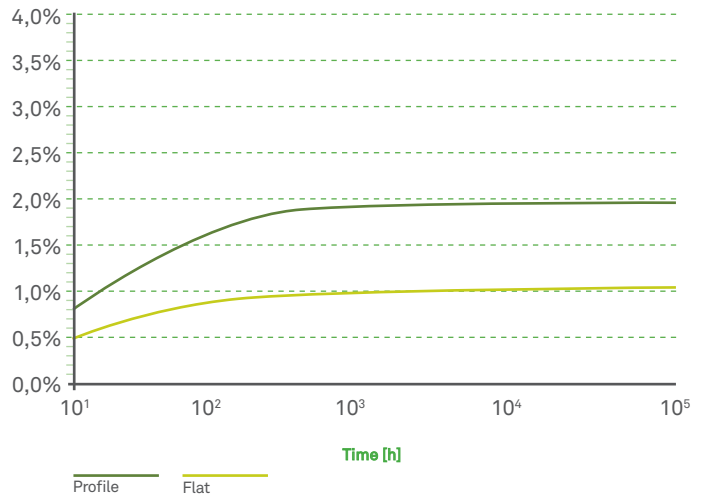


## PHYSICAL AND MECHANICAL PROPERTIES

### LOAD DEFLECTION



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



Note: Following ISO8013-1998 measured in Cantilever Test System

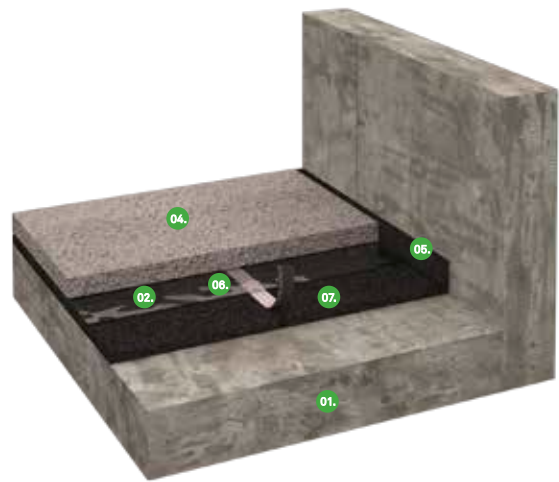
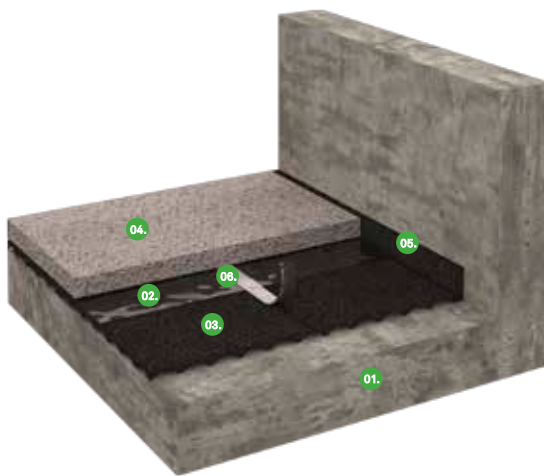
### DYNAMIC STIFFNESS

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

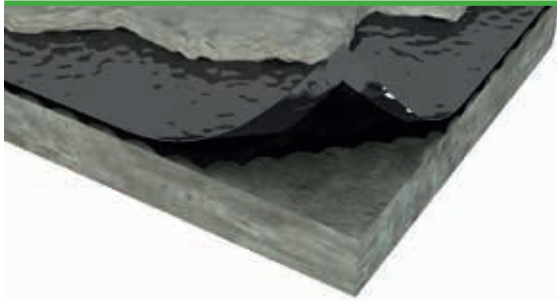
Thickness	4mm	4/2mm	6mm	6/3mm	8mm	8/4mm	10mm	10/5mm
Dynamic Stiffness (MN/m <sup>3</sup> )	52	32	44	25	38	23	37	20



## INSTALLATION



- 01.** Reinforced concrete slab
- 02.** Vapor barrier
- 03.** Agglomerated recycled rubber resilient layer with one face dimpled - U22 Profile
- 04.** Concrete floating screed
- 05.** Perimeter insulation barrier
- 06.** Adhesive tape
- 07.** Agglomerated recycled rubber resilient layer - U22



## FLOATING SCREED

# U22 UNDERSCREED

### 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.

### Installation Instruction for Acousticork U22

Unpack the Acousticork U22 at least 24h before the installation and store it in the room where the installation will take place. Cut and trim the Acousticork U22 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 U22 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 U22 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 U22 area without gaps. Never mechanically fasten the Acousticork U22 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

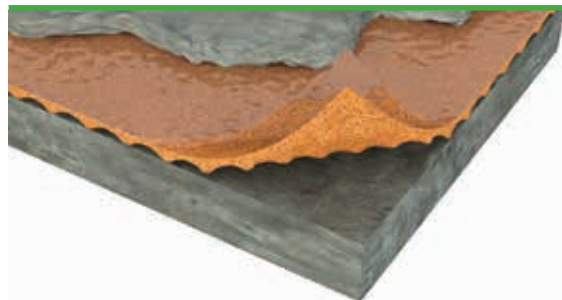
Cast a suitable screed over the loose laid PE foil previously installed over the product.

Always follow manufacturers recommended installation instructions.

For detailed installation instructions, please contact us.

## U32

### Material Data Sheet



#### FLOATING SCREED

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



#### PRODUCT DESCRIPTION

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



#### THERMAL PROPERTIES

Thermal Conductivity: 0,04 W/mK <sup>(1)</sup>

<sup>(1)</sup>ISO 8301



#### PHYSICAL AND MECHANICAL PROPERTIES

Specific Weight <sup>(1)</sup>	Dynamic Stiffness <sup>(2)</sup>	Tensile Strength <sup>(3)</sup>	Recovery after 0,7MPa <sup>(4)</sup>
150 - 220 Kg/m <sup>3</sup>	38 MN/m <sup>3</sup>	> 200 KPa	> 70%

<sup>(1)</sup>ASTM F1315 • <sup>(2)</sup>ISO 9052-1 & ISO 7626-5 • <sup>(3)</sup>ASTM F152 • <sup>(4)</sup>ASTM F36



#### ACOUSTICAL RESULTS

Thickness (mm)	$\Delta L_w$ (dB) <sup>(1)</sup>	IIC (dB) <sup>(2)</sup>
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

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



#### STANDARD DIMENSIONS

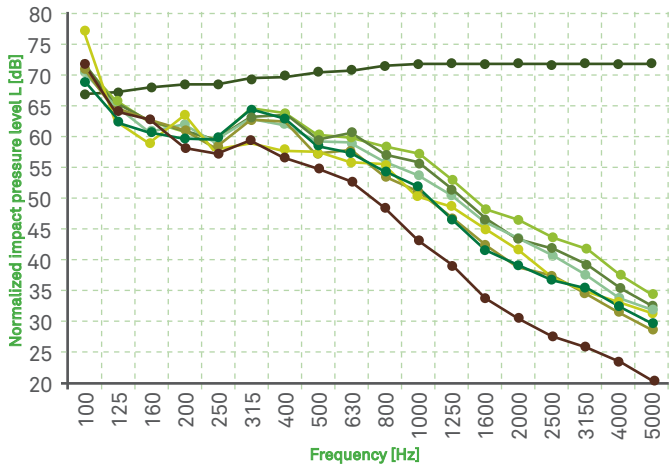
Thickness (mm)	4	4/2	6	6/3	8/4	10	10/5
Width (m) x Length (m)	1 x 20	1 x 30	1 x 20	1 x 20	1 x 15	1 x 15	1 x 10

Others sizes available upon request



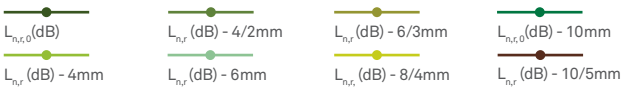


**ACOUSTICAL RESULTS**  
 Test procedure according to ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010 and ISO 717-2:2013 standards.

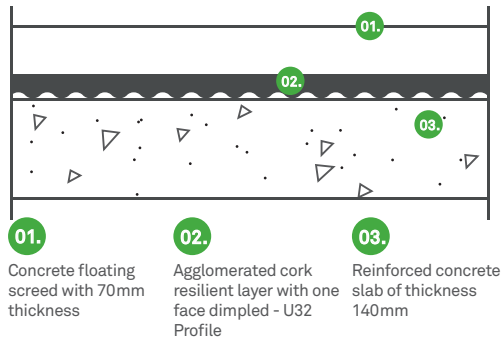
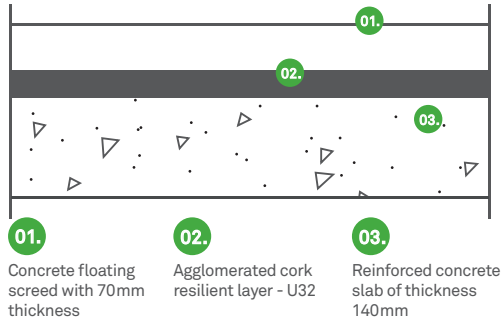


$L_{n,r}$  - Normalized impact sound pressure level of the reference floor with the floor covering under test;  
 $L_{n,r,0}$  - Normalized impact sound pressure level of the Lab reference floor;  
 $\Delta L_w$  - Impact sound pressure level reduction index of the covering under test, on a normalized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

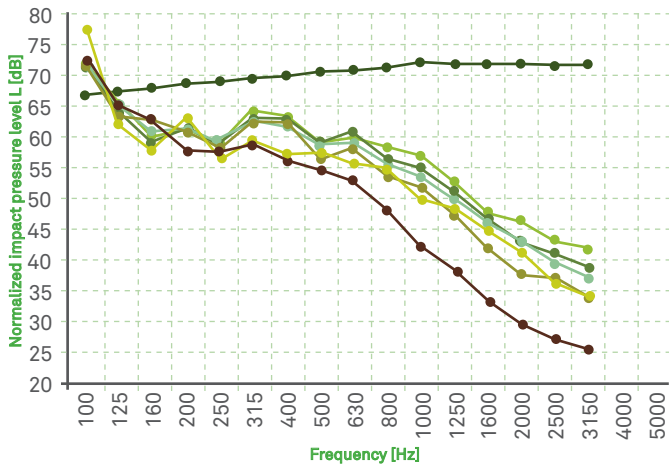
Ref. Test Report	Thickness	$L_{n,r,W}(C_{L,r})$	$\Delta L_w(C_{L,\Delta})$
ACL104/15	4 mm	59 (1) dB	19 (-12) dB
ACL041/14	4/2 mm	59 (1) dB	19 (-12) dB
ACL105/15	6 mm	58 (2) dB	20 (-13) dB
ACL042/14	6/3 mm	58 (1) dB	20 (-12) dB
ACU242/09	8/4 mm	57 (7) dB	21 (-18) dB
ACL106/15	10 mm	58 (0) dB	20 (-11)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



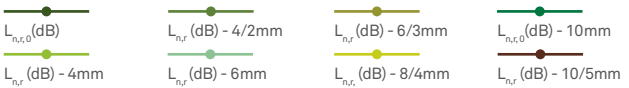
**TEST APPARATUS ( $\Delta L_w$  & IIC)**



**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.



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

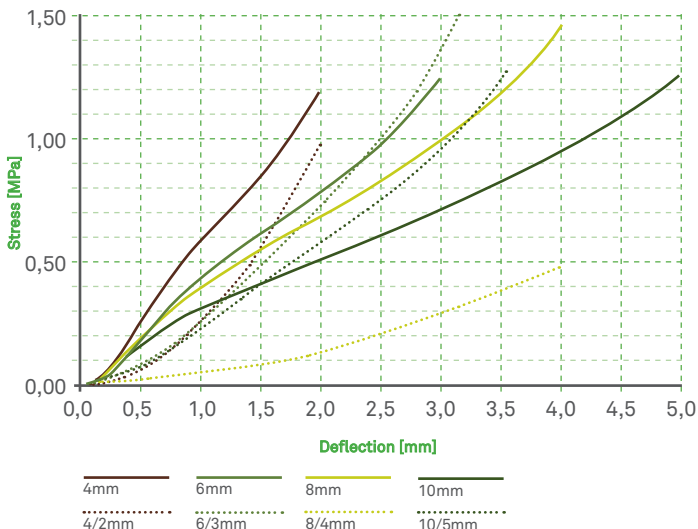


Thickness	IIC <sub>c</sub>
4 mm	47 dB
4/2 mm	47 dB
6 mm	48 dB
6/3 mm	48 dB
8/4 mm	42 dB
10 mm	50 dB
10/5 mm	47 dB

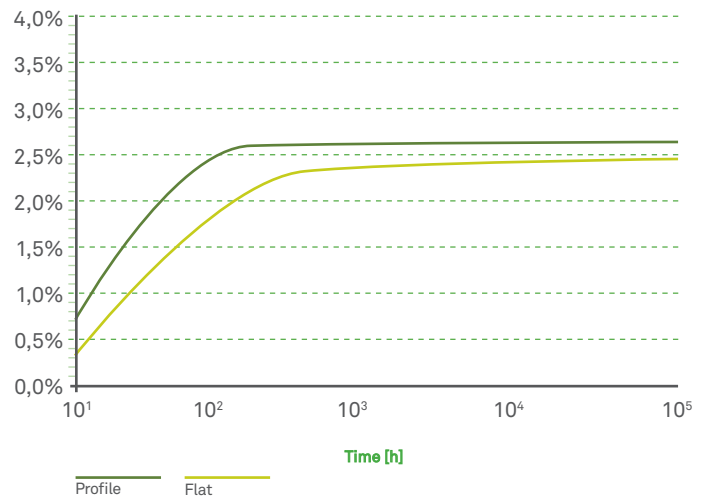


## PHYSICAL AND MECHANICAL PROPERTIES

### LOAD DEFLECTION



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



Note: Following ISO8013-1998 measured in Cantilever Test System

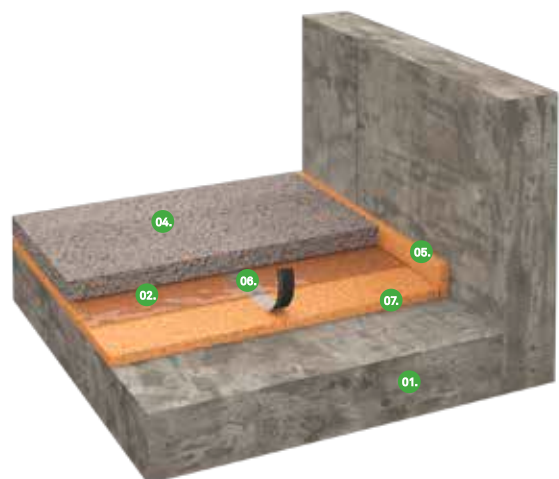
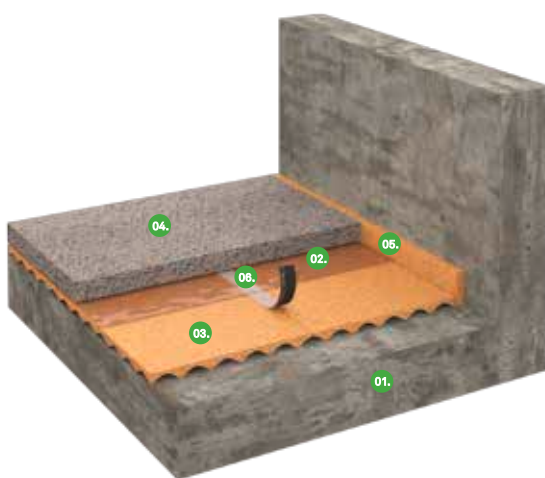
### DYNAMIC STIFFNESS

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

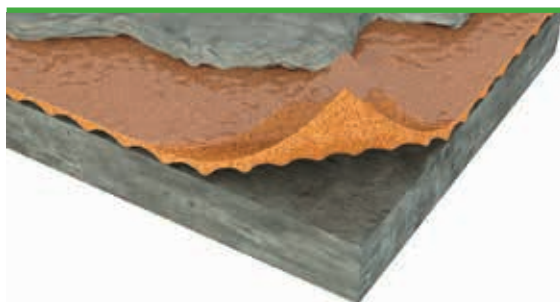
Thickness	4mm	4/2mm	6mm	6/3mm	8mm	8/4mm	10mm	10/5mm
Dynamic Stiffness (MN/m <sup>3</sup> )	94	70	88	50	82	48	72	38



## 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



# U32

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## UNDERSCREED

### 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.

### 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. 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

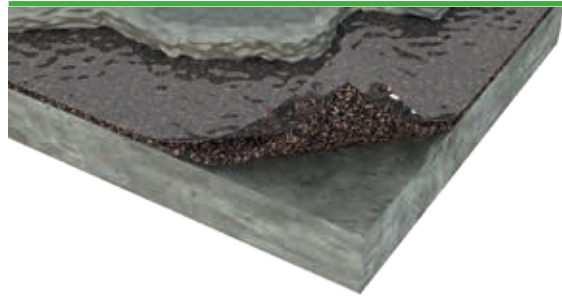
Cast a suitable screed over the loose laid PE foil previously installed over the product.

Always follow manufacturers recommended installation instructions.

For detailed installation instructions, please contact us.

## U85

### Material Data Sheet



#### FLOATING SCREED

Impact Noise Reduction and Thermal Insulation Properties  
 Very Easy to Handle and Long Term Resilience  
 Produced from Recycled and Natural Material  
 Very Flexible



#### PRODUCT DESCRIPTION

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



#### THERMAL PROPERTIES

Thermal Conductivity: 0,055 W/mK <sup>(1)</sup>

<sup>(1)</sup>ISO 8301



#### PHYSICAL AND MECHANICAL PROPERTIES

Specific Weight <sup>(1)</sup>	Dynamic Stiffness <sup>(2)</sup>	Tensile Strength <sup>(3)</sup>	Recovery after 0,7MPa <sup>(4)</sup>
230 - 300 Kg/m <sup>3</sup>	27 MN/m <sup>3</sup>	> 100 KPa	> 70%

<sup>(1)</sup>ASTM F1315 • <sup>(2)</sup>ISO 9052-1 & ISO 7626-5 • <sup>(3)</sup>ASTM F152 • <sup>(4)</sup>ASTM F36



#### ACOUSTICAL RESULTS

Thickness (mm)	$\Delta L_w$ (dB) <sup>(1)</sup>	IIC (dB) <sup>(2)</sup>
4	19	51
4/2	23	52
6	20	51
6/3	23	52
8/4	25	52
10/5	27	52

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



#### STANDARD DIMENSIONS

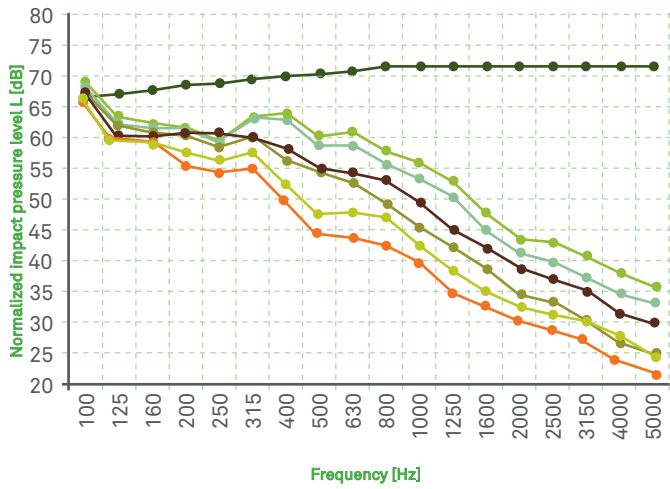
Thickness (mm)	4	4/2	6	6/3	8/4	10/5
Width (m) x Length (m)	1 x 15	1 x 30	1 x 10	1 x 20	1 x 15	1x10

Others sizes available upon request



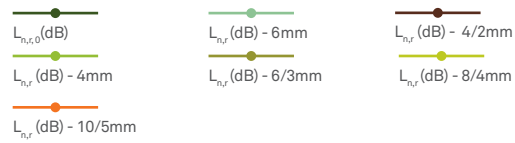


**ACOUSTICAL RESULTS**  
 Test procedure according to ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010 and ISO 717-2:2013 standards.

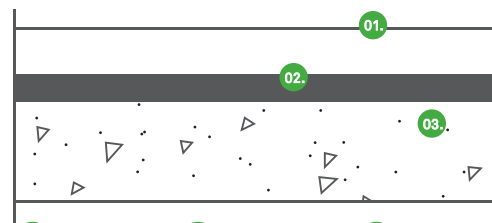


$L_{n,r}$  - Normalized impact sound pressure level of the reference floor with the floor covering under test;  
 $L_{n,r,0}$  - Normalized impact sound pressure level of the Lab reference floor;  
 $\Delta L_w$  - Impact sound pressure level reduction index of the covering under test, on a normalized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

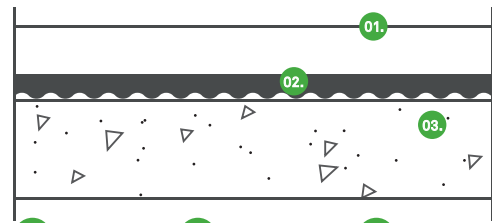
Ref. Test Report	Thickness	$L_{n,r,w}(C_{l,r})$	$\Delta L_w(C_{l,r})$
ACL219/14	4 mm	59 (0) dB	19 (-11) dB
ACL311/15	4/2 mm	55 (1) dB	23 (-12) dB
ACL220/14	6 mm	58 (0) dB	20 (-11) dB
ACL171/15	6/3 mm	55 (1) dB	23 (-12) dB
ACL122/15	8/4mm	53 (2) dB	25 (-13) dB
ACL121/15	10/5mm	51 (3) dB	27 (-14) dB



**TEST APPARATUS ( $\Delta L_w$  & IIC)**

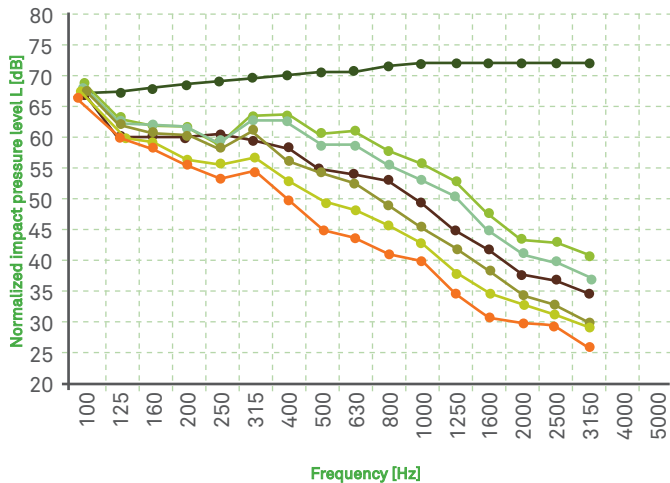


- 01. Concrete floating screed with 70mm thickness
- 02. Agglomerated cork and PU resilient layer - U85
- 03. Reinforced concrete slab of thickness 140mm

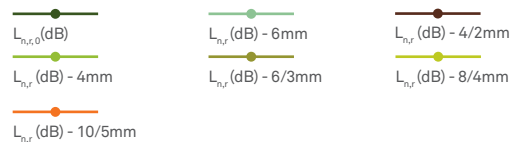


- 01. Concrete floating screed with 70mm thickness
- 02. Agglomerated cork and PU resilient layer with one face dimpled - U85 Profile
- 03. Reinforced concrete slab of thickness 140mm

**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.



$L_{ref}$  - 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;

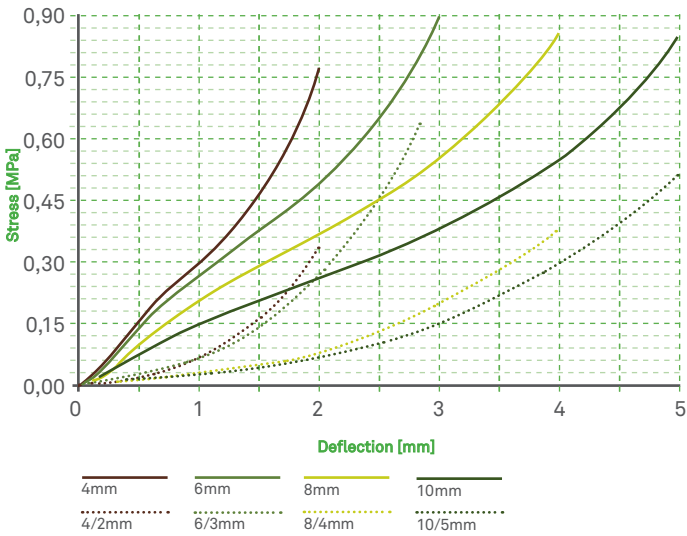


Thickness	IIC <sub>c</sub>
4 mm	51 dB
4/2 mm	52 dB
6 mm	51 dB
6/3 mm	52 dB
8/4mm	52 dB
10/5mm	52 dB

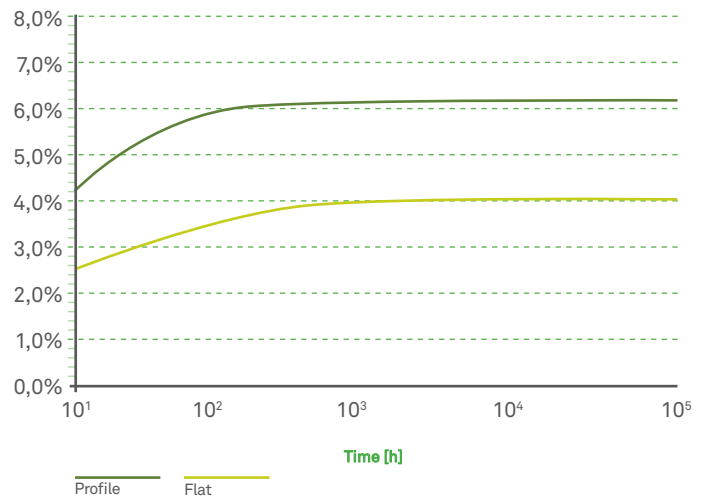


## PHYSICAL AND MECHANICAL PROPERTIES

### LOAD DEFLECTION



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



Note: Following ISO8013-1998 measured in Cantilever Test System

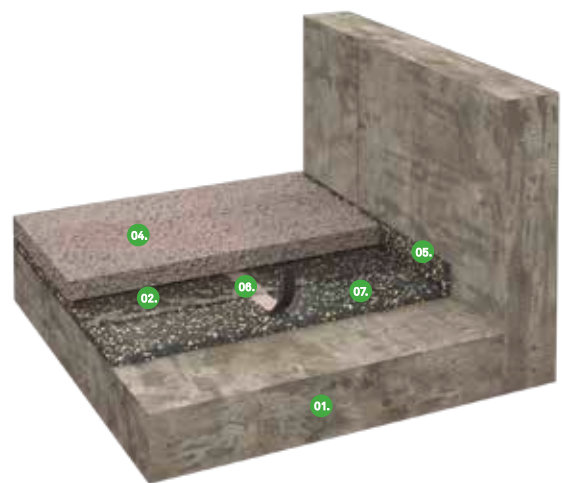
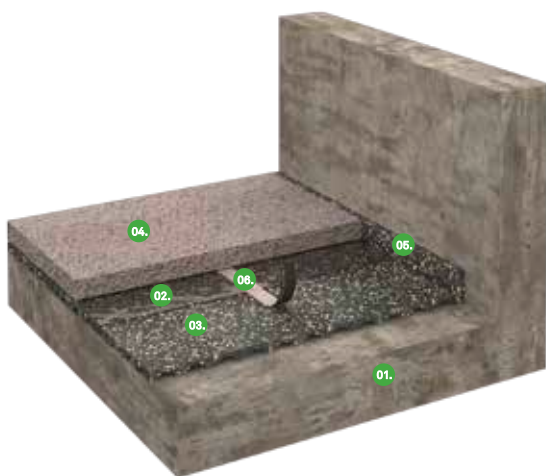
### DYNAMIC STIFFNESS

Test procedure according ISO 9052-1 and ISO7626-5 standards.

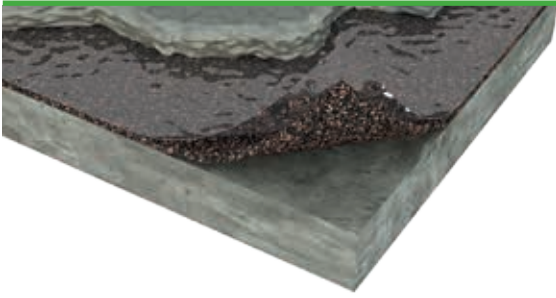
Thickness	4mm	4/2mm	6mm	6/3mm	8mm	8/4mm	10mm	10/5mm
Dynamic Stiffness (MN/m <sup>3</sup> )	85	52	82	50	72	32	60	27



## INSTALLATION



- 01.** Reinforced concrete slab
- 02.** Vapor barrier
- 03.** Agglomerated cork and PU resilient layer with one face dimpled - U85 Profile
- 04.** Concrete floating screed
- 05.** Perimeter insulation barrier
- 06.** Adhesive tape
- 07.** Agglomerated cork and PU resilient layer - U85



## FLOATING SCREED

# U85 UNDERSCREED

### 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.

### Installation Instruction for Acousticork U85

Unpack the Acousticork U85 at least 24h before the installation and store it in the room where the installation will take place. Cut and trim the Acousticork U85 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 U85 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 U85 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 U85 area without gaps. Never mechanically fasten the Acousticork U85 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.

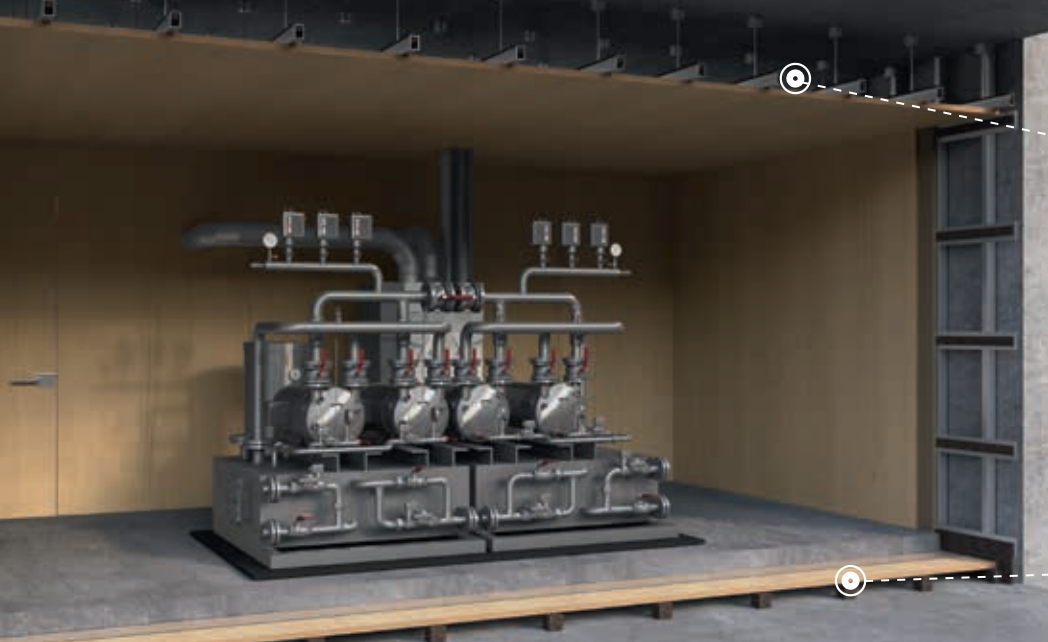
# ACOUSTICORK

SUSTAINABLE  
ACOUSTIC  
INSULATION

# 03

## Vibration Control





Cork & Natural Rubber  
Engineered Compound



Resin Bonded Cork  
& Recycled Rubber



Resin Bonded  
Recycled Rubber

## Vibration Control

**Acousticork's** specific material formulations for vibration control combine performance with environmental concerns.

### Cork & Natural Rubber Engineered Compound

- Dynamic-to-static stiffness ratio (1,3 – 2,5)
- Low Damping
- Low Water Absorption
- High Poisson Ratio (Shape Factor Dependency)
- UV/Ozone upon request

- High Vibration Insulation
- Low Resonance Frequency
- Long Term Durability
- Can be used in mats, strips or pads and with different backings, such as double-sided tape.

### Resin Bonded Cork & Recycled Rubber

#### Features:

- Dynamic-to-static stiffness ratio (2 – 3,5)
- High Damping
- Low Poisson Ratio (No Shape Factor Dependency)
- Recycled Products

#### Benefits:

- High Vibration Insulation
- Lower Amplification at Resonance
- Long Term Durability
- Good Quality/Value Ratio
- Can be used in pads

### Resin Bonded Recycled Rubber

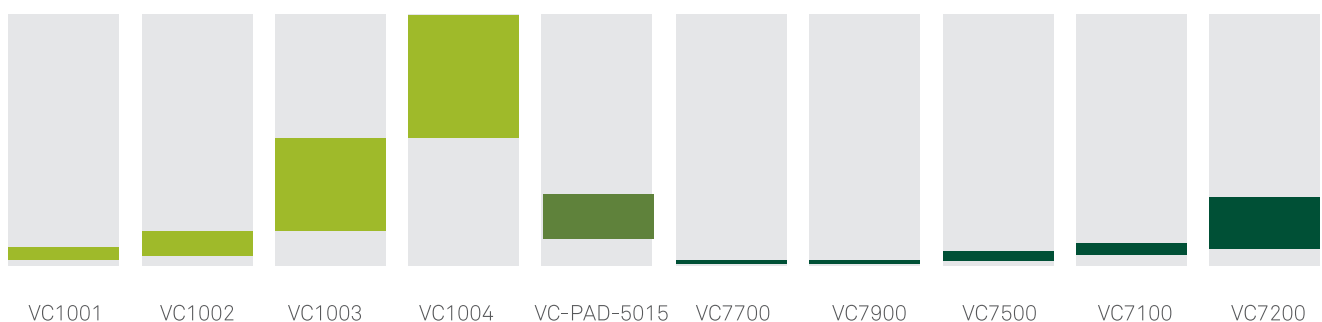
#### Features:

- Dynamic-to-static stiffness ratio (2 – 3)
- Low Damping
- Fatigue Resistance
- Low Poisson Ratio (No Shape Factor Dependency)
- Recycled Products

#### Benefits:

- High Vibration Insulation
- Long Term Durability
- Good Quality/Value Ratio
- Can be used in mats and strips

### WORK LOAD RANGE (MPA)



## VC1001

### Material Data Sheet

## CORK & NATURAL RUBBER



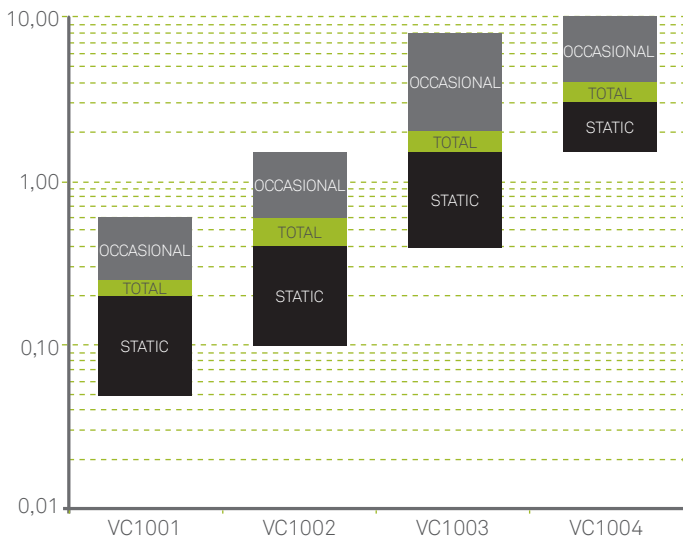
**VC1001** Vibration Control material is an engineered compound with Cork and Natural Rubber.

This product is suitable for vibration control applications in need of very high isolation levels, used as discrete isolators (pads/strips) with a low resonance frequency and low load.

#### LOAD RANGE

- **STATIC** 0,05 - 0,20 MPa (7 - 29 psi)
- **TOTAL** 0,25 MPa (36 psi)
- **OCCASIONAL** 0,60 MPa (87 psi)

#### WORK LOAD RANGE [MPa]



#### E-MODULE (@ stable load)

- **STATIC<sup>(1)</sup>** 0,8 - 1,5 MPa (116 - 217 psi)
- **DYNAMIC<sup>(2)</sup>** 1,2 - 3,6 MPa (174 - 522 psi)

#### TEMPERATURE

- **RANGE** -10 / +100°C (+14 / 212 °F)

(1) DIN 53513 (ADAPTED) - TANGENTIAL MODULUS

(2) DIN 53513 (ADAPTED) - DEPENDING ON LOAD AND FREQUENCY

#### FEATURES

- Long term durability
- Low natural frequency / High vibration isolation
- Low water absorption
- Low creep rate

Density (kg/m <sup>3</sup> ) <sup>(1)</sup>	500 (31 lb/ft <sup>3</sup> )
Shore hardness (Shore A) <sup>(2)</sup>	20 - 35
Elongation at break (%) <sup>(3)</sup>	> 80
Tensile strength (MPa) <sup>(3)</sup>	> 0,25 (>36 psi)
Compression set 50%/23°C/70h (%) <sup>(4)</sup>	< 20
Compressibility at 0,7 MPa (%) <sup>(5)</sup>	45 - 60
Recovery at 0,7MPa (%) <sup>(5)</sup>	> 85

(1) ASTM D297

(2) ASTM D2240

(3) ASTM F152

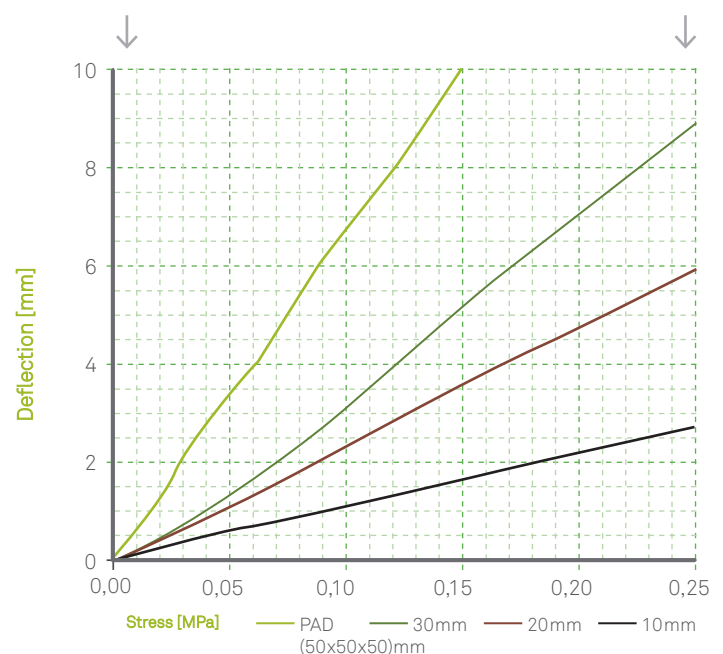
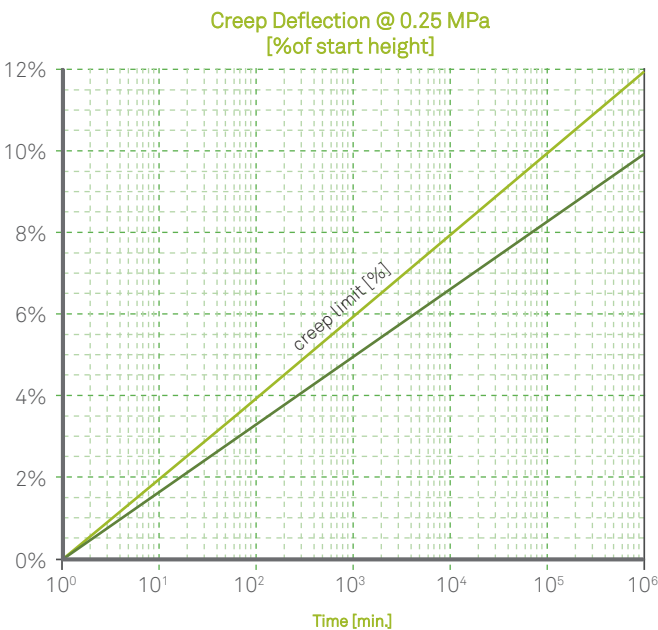
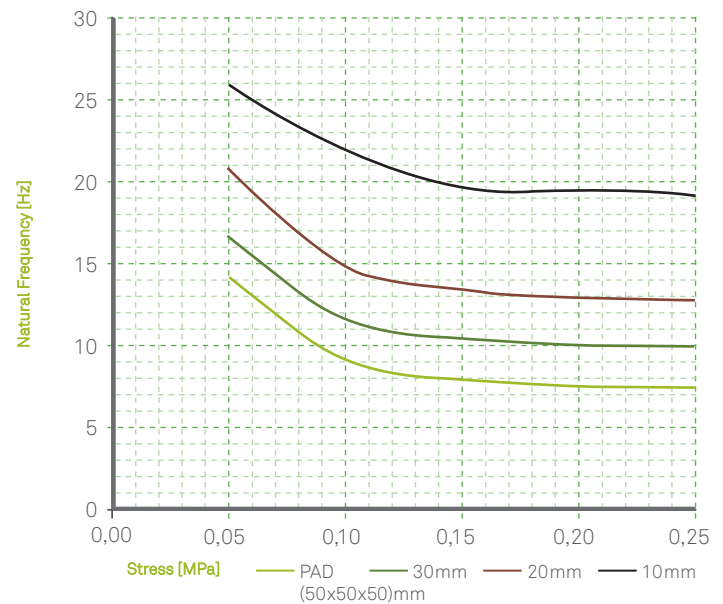
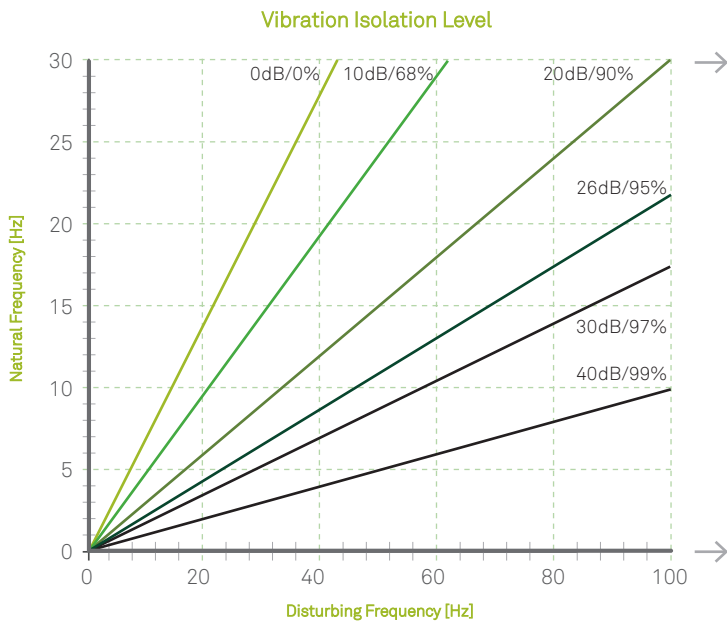
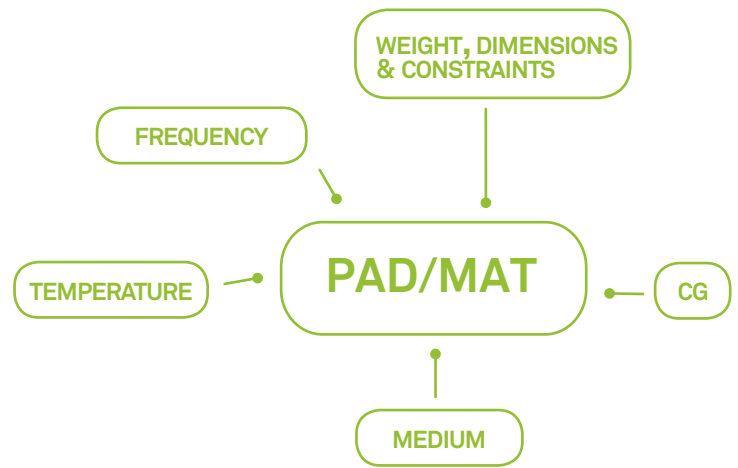
(4) DIN EN ISO 1856

(5) ASTM F36

## Selection Guideline

Material selection can be made using the Static/Dynamic E-Module in the respective load range or using the Vibration Isolation Level Abacus below:

- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added to the above deflection via the Creep deflection graph calculating the additional deflection and adding.



Note: When length and width are not listed, consider PAD's with 150x150 [mm]



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).

[www.amorimcorkcomposites.com](http://www.amorimcorkcomposites.com)

## VC1002

### Material Data Sheet

## CORK & NATURAL RUBBER



**VC1002** Vibration Control material is an engineered compound with Cork and Natural Rubber.

This product is suitable for vibration control applications in need of very high isolation levels, used as discrete isolators (pads/strips) with a low resonance frequency and medium low load.

#### LOAD RANGE

- **STATIC** 0,10 - 0,40 MPa (14 - 58 psi)
- **TOTAL** 0,60 MPa (87 psi)
- **OCCASIONAL** 1,50 MPa (218 psi)

#### E-MODULE (@ stable load)

- **STATIC** <sup>(1)</sup> 1,6 - 4,0 MPa (232 - 580 psi)
- **DYNAMIC** <sup>(2)</sup> 3,5 - 8,0 MPa (507 - 1160 psi)

#### TEMPERATURE

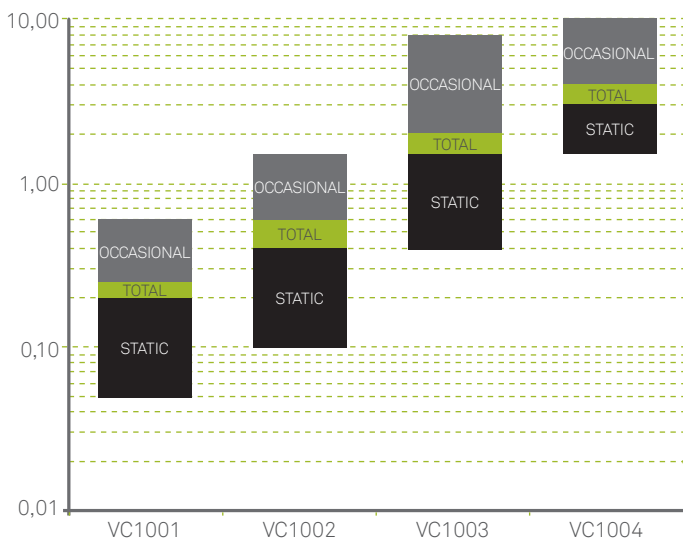
- **RANGE** -10 / +100°C (+14 / 212 °F)

(1) DIN 53513 (ADAPTED) - TANGENTIAL MODULUS  
 (2) DIN 53513 (ADAPTED) - DEPENDING ON LOAD AND FREQUENCY

Density (kg/m <sup>3</sup> ) <sup>(1)</sup>	700 (44 lb/ft <sup>3</sup> )
Shore hardness (Shore A) <sup>(2)</sup>	35 - 50
Elongation at break (%) <sup>(3)</sup>	> 200
Tensile strength (MPa) <sup>(3)</sup>	> 2,0 (>290 psi)
Compression set 50%/23°C/70h (%) <sup>(4)</sup>	< 15
Compressibility at 0,7 MPa (%) <sup>(5)</sup>	55 - 65
Recovery at 0,7MPa (%) <sup>(5)</sup>	> 90

(1) ASTM D297 (4) DIN EN ISO 1856  
 (2) ASTM D2240 (5) ASTM F36  
 (3) ASTM F152

#### WORK LOAD RANGE [MPa]



#### FEATURES

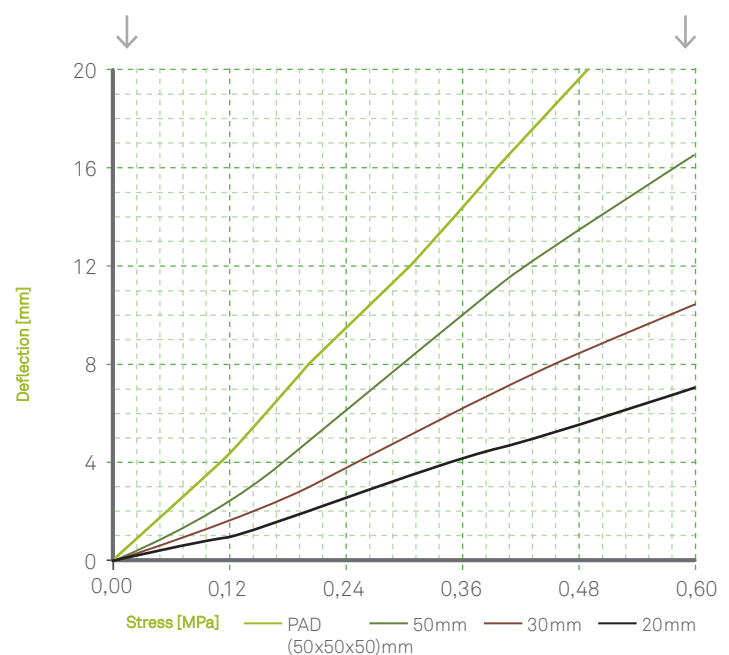
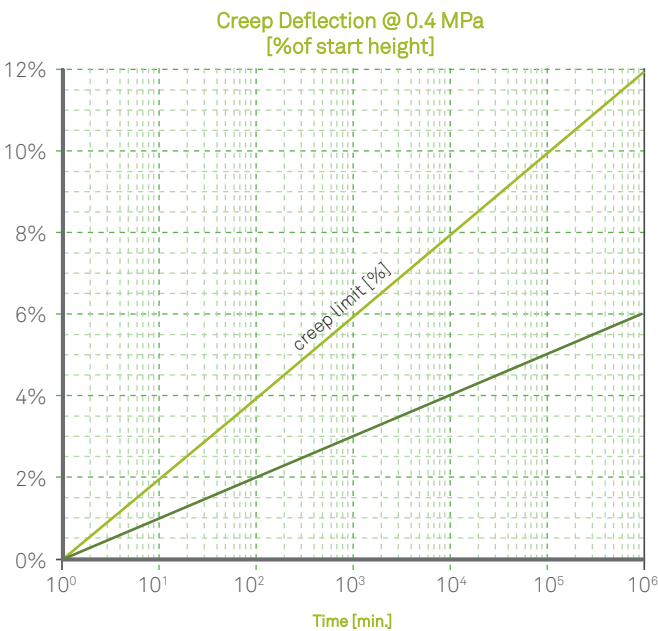
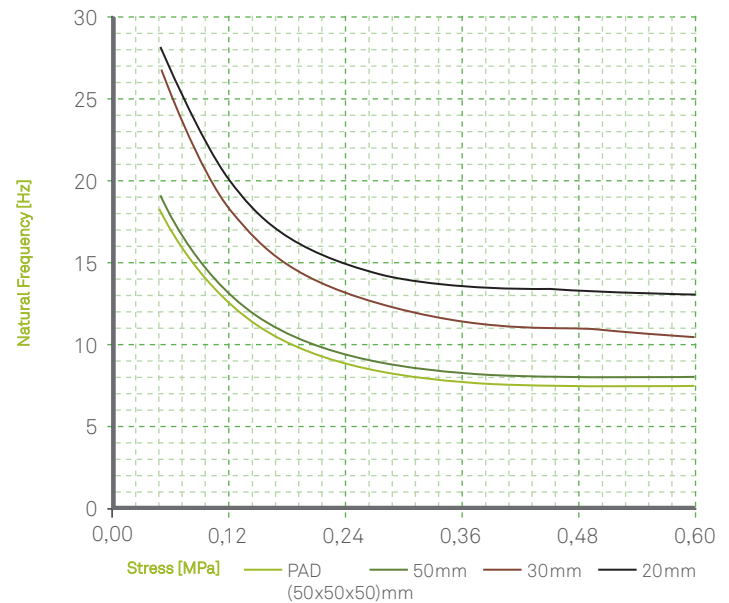
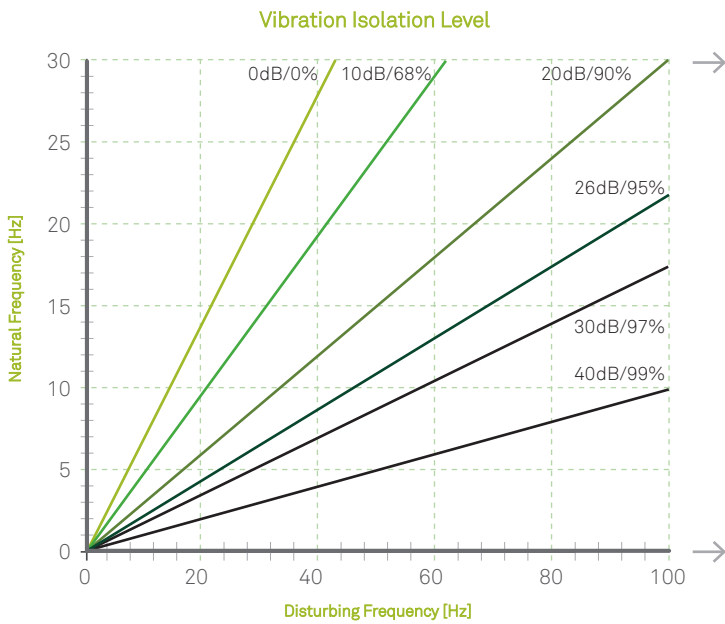
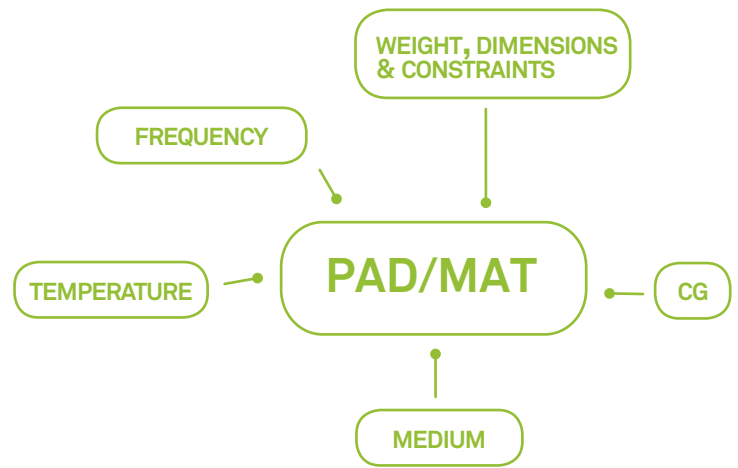
- Long term durability
- Low natural frequency / High vibration isolation
- Low water absorption
- Low creep rate



## Selection Guideline

Material selection can be made using the Static/Dynamic E-Module in the respective load range or using the Vibration Isolation Level Abacus below:

- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added to the above deflection via the Creep deflection graph calculating the additional deflection and adding.



Note: When length and width are not listed, consider PAD's with 150x150 [mm]



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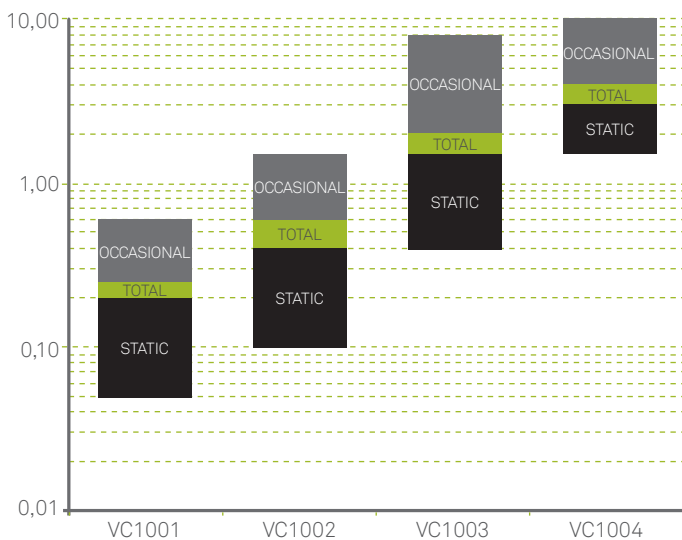
## VC1003

### Material Data Sheet

## CORK & NATURAL RUBBER



### WORK LOAD RANGE [MPa]



### FEATURES

- Long term durability
- Low natural frequency / High vibration isolation
- Low water absorption
- Low creep rate

**VC1003** Vibration Control material is an engineered compound with Cork and Natural Rubber.

This product is suitable for vibration control applications in need of very high isolation levels, used as discrete isolators (pads/strips) with a low resonance frequency and medium load.

### LOAD RANGE

- **STATIC** 0,40 - 1,50 MPa (58 - 218 psi)
- **TOTAL** 2,0 MPa (290 psi)
- **OCCASIONAL** 8,0 MPa (1160 psi)

### E-MODULE (@ stable load)

- **STATIC** <sup>(1)</sup> 5,0 - 13,0 MPa (725 - 1885 psi)
- **DYNAMIC** <sup>(2)</sup> 10,0 - 33,0 MPa (1450- 4785 psi)

### TEMPERATURE

- **RANGE** -10 / +100°C (+14 / 212 °F)

(1) DIN 53513 (ADAPTED) - TANGENTIAL MODULUS  
 (2) DIN 53513 (ADAPTED) - DEPENDING ON LOAD AND FREQUENCY

Density (kg/m <sup>3</sup> ) <sup>(1)</sup>	1100 (68 lb/ft <sup>3</sup> )
Shore hardness (Shore A) <sup>(2)</sup>	45 - 60
Elongation at break (%) <sup>(3)</sup>	> 300
Tensile strength (MPa) <sup>(3)</sup>	> 5,0 (>725 psi)
Compression set 50%/23°C/70h (%) <sup>(4)</sup>	< 15
Compressibility at 0,7 MPa (%) <sup>(5)</sup>	40 - 60
Recovery at 0,7MPa (%) <sup>(5)</sup>	> 90

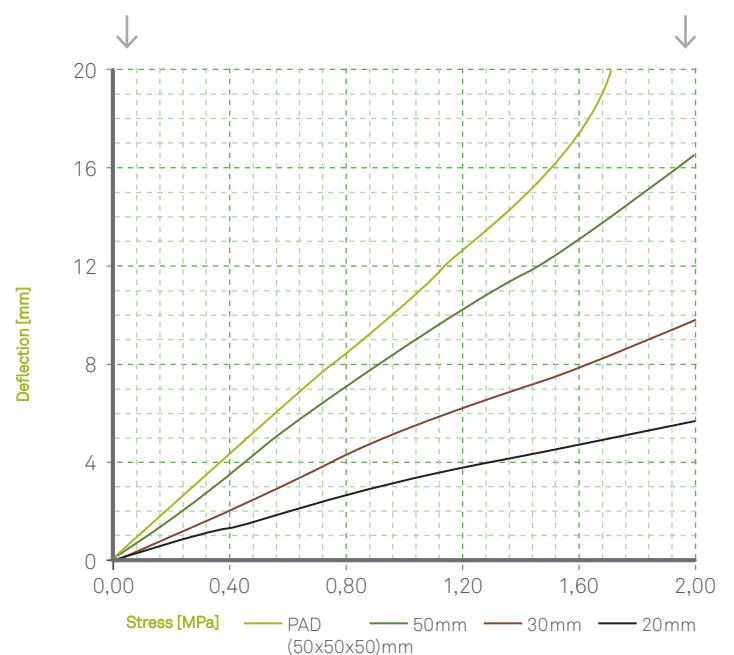
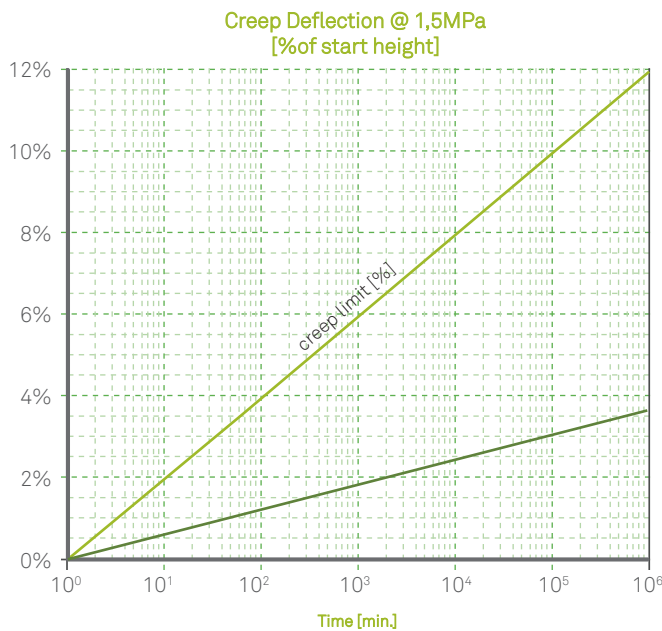
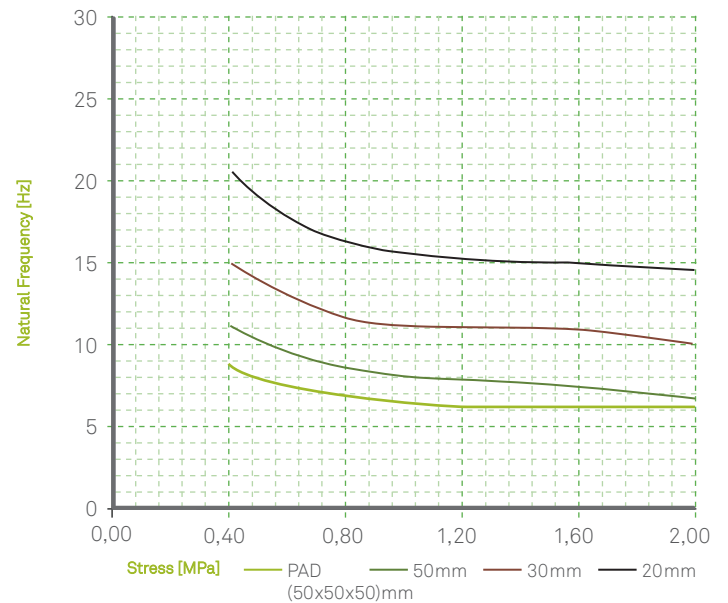
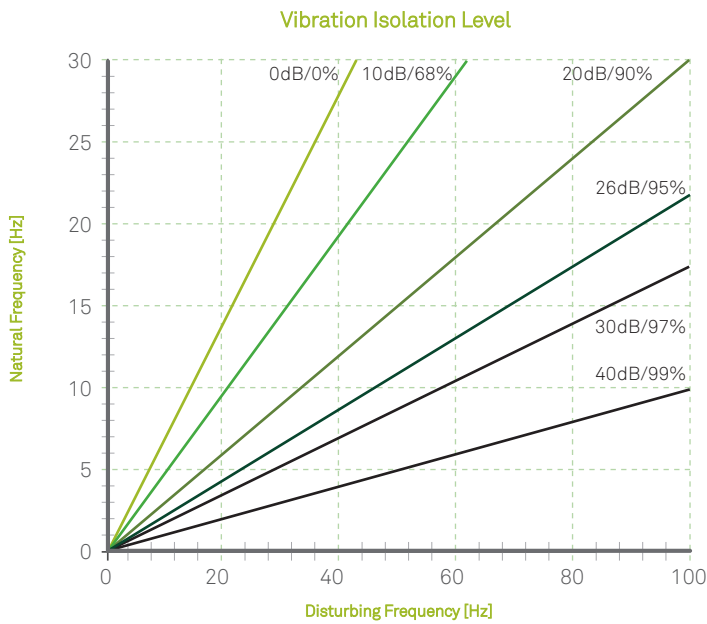
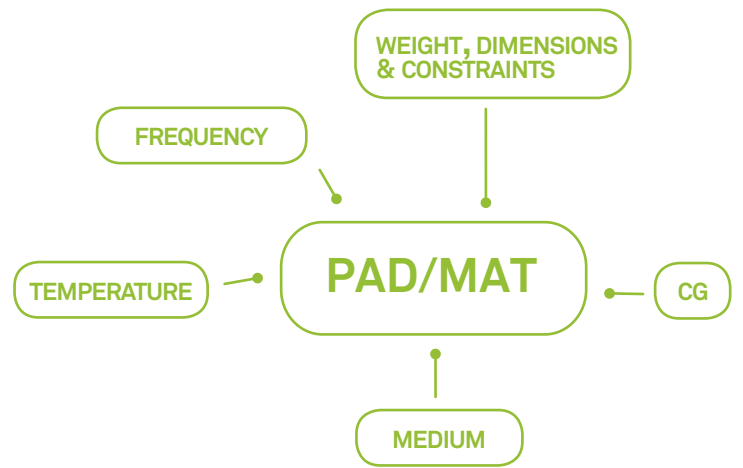
(1) ASTM D297  
 (2) ASTM D2240  
 (3) ASTM F152

(4) DIN EN ISO 1856  
 (5) ASTM F36

## Selection Guideline

Material selection can be made using the Static/Dynamic E-Module in the respective load range or using the Vibration Isolation Level Abacus below:

- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added to the above deflection via the Creep deflection graph calculating the additional deflection and adding.



Note: When length and width are not listed, consider PAD's with 150x150 [mm]



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## VC1004

### Material Data Sheet

## CORK & NATURAL RUBBER



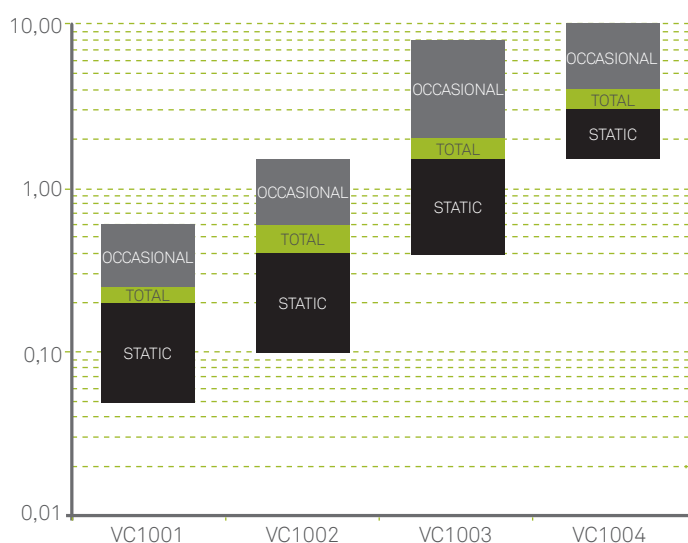
**VC1004** Vibration Control material is an engineered compound with Cork and Natural Rubber.

This product is suitable for vibration control applications in need of very high isolation levels, used as discrete isolators (pads/strips) with a low resonance frequency and medium high load.

#### LOAD RANGE

- **STATIC** 1,5 - 3,0 MPa (217 - 435 psi)
- **TOTAL** 4,0 MPa (580 psi)
- **OCCASIONAL** 10,0 MPa (1450 psi)

#### WORK LOAD RANGE [MPa]



#### E-MODULE (@ stable load)

- **STATIC** <sup>(1)</sup> 8,0 - 20,0 MPa (1160 - 2900 psi)
- **DYNAMIC** <sup>(2)</sup> 16,0 - 50,0 MPa (2320 - 7251 psi)

#### TEMPERATURE

- **RANGE** -10 / +100°C (+14 / 212 °F)

- (1) DIN 53513 (ADAPTED) - TANGENTIAL MODULUS  
 (2) DIN 53513 (ADAPTED) - DEPENDING ON LOAD AND FREQUENCY

Density (kg/m <sup>3</sup> ) <sup>(1)</sup>	1125 (70 lb/ft <sup>3</sup> )
Shore hardness (Shore A) <sup>(2)</sup>	60 - 80
Elongation at break (%) <sup>(3)</sup>	> 100
Tensile strength (MPa) <sup>(3)</sup>	> 6,0 (<870 psi)
Compression set 50%/23°C/70h (%) <sup>(4)</sup>	< 15
Compressibility at 0,7 MPa (%) <sup>(5)</sup>	40 - 60
Recovery at 0,7MPa (%) <sup>(5)</sup>	> 85

- (1) ASTM D297 (4) DIN EN ISO 1856  
 (2) ASTM D2240 (5) ASTM F36  
 (3) ASTM F152

#### FEATURES

- Long term durability
- Low natural frequency / High vibration isolation
- Low water absorption
- Low creep rate

RoHS Compliant  
 AMORIM CORK COMPOSITES

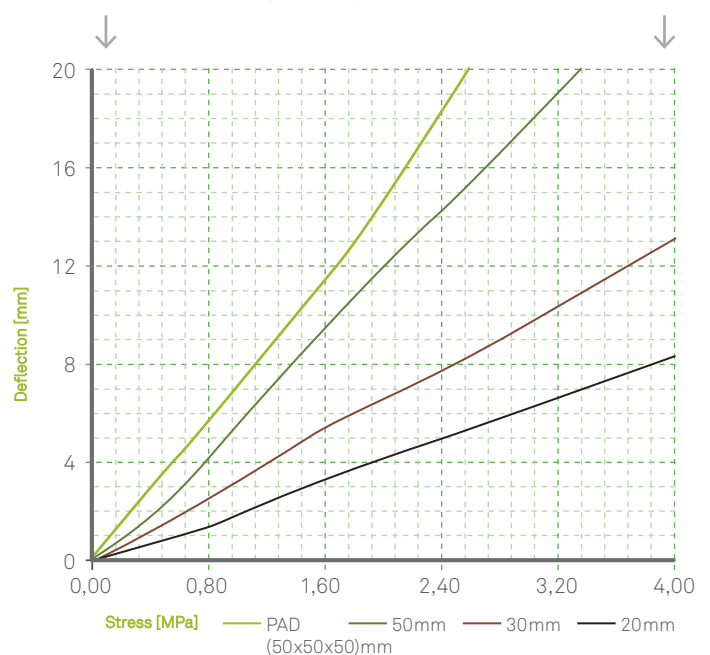
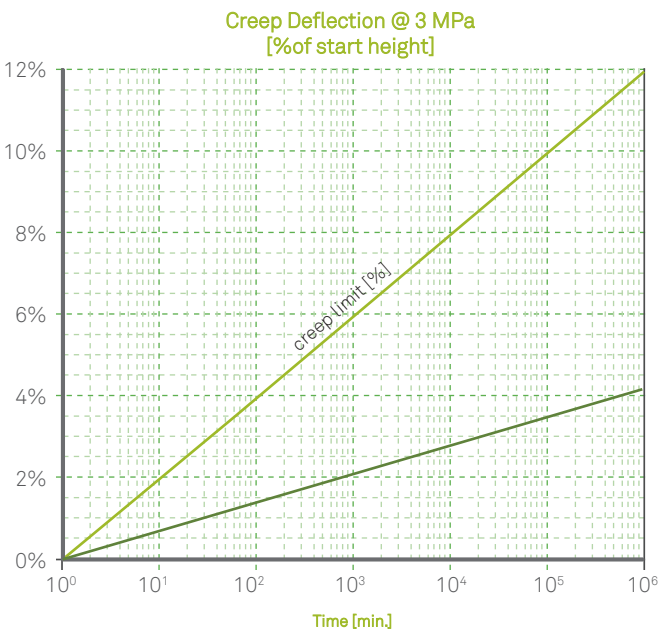
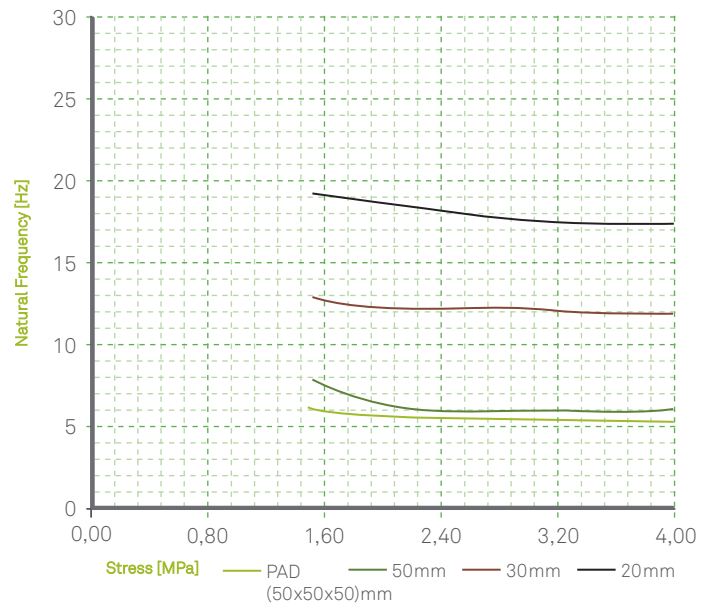
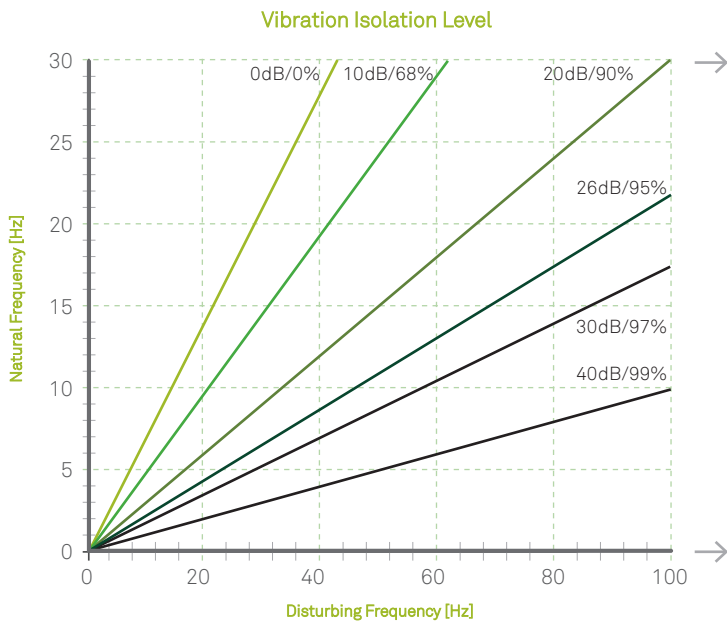
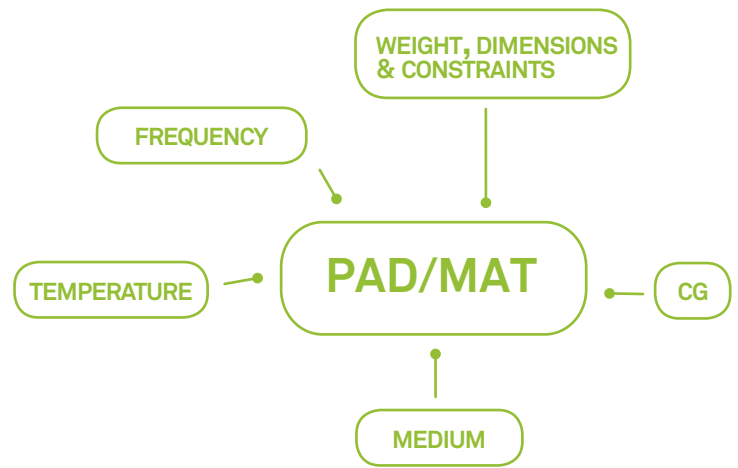




## Selection Guideline

Material selection can be made using the Static/Dynamic E-Module in the respective load range or using the Vibration Isolation Level Abacus below:

- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added to the above deflection via the Creep deflection graph calculating the additional deflection and adding.



Note: When length and width are not listed, consider PAD's with 150x150 [mm]



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## VC-PAD-5015

### Material Data Sheet

## RESIN BONDED CORK & RECYCLED RUBBER



VC-PAD-5015 is an engineered composite with Cork and polymeric matrix structure.

This product is suitable for vibration control in construction, used in the form of a cube, as discrete isolators in the decoupling of floating floors.

#### LOAD RANGE

- **STATIC** 0,30 - 0,85 MPa (43 - 123 psi)

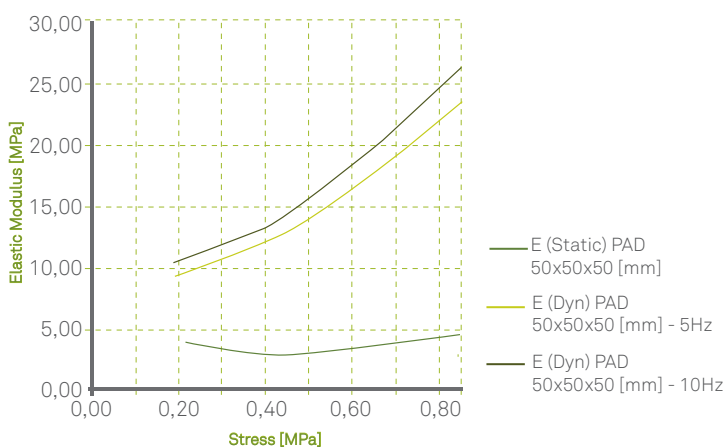
#### E-MODULE (@ stable load)

- **STATIC** 2,9 - 4,4 MPa (420 - 640 psi)
- **DYNAMIC** 13 - 27 MPa (1885 - 3920 psi)

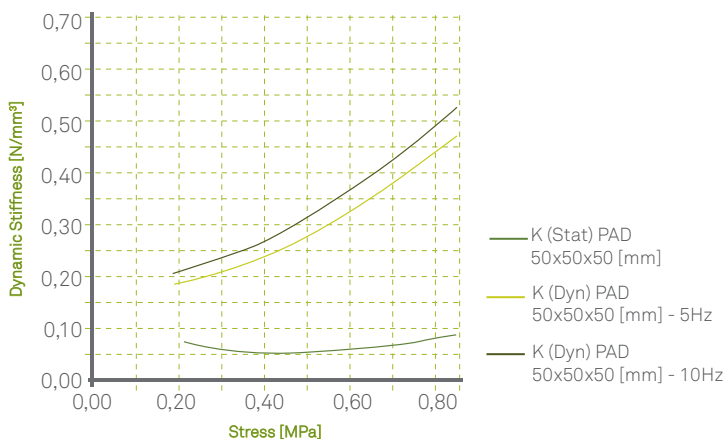
#### TEMPERATURE

- **RANGE** -10 / +100°C (+14 / 212 °F)

#### MODULUS OF ELASTICITY [MPa]



#### DYNAMIC STIFFNESS [N/MM<sup>3</sup>]



Density (kg/m <sup>3</sup> ) <sup>(1)</sup>	600 (40 lb/ft <sup>3</sup> )
Shore hardness (Shore A) <sup>(2)</sup>	60 - 70
Elongation at break (%) <sup>(3)</sup>	> 15
Tensile strength (MPa) <sup>(3)</sup>	> 0,7 (>102 psi)
Compression set 50%/23°C/70h (%) <sup>(4)</sup>	< 15
Compressibility at 0,7 MPa (%) <sup>(5)</sup>	35 - 50
Recovery at 0,7MPa (%) <sup>(5)</sup>	> 70

(1) ASTM D297  
(2) ASTM D2240  
(3) ASTM F152

(4) DIN 53572  
(5) ASTM F36

#### FEATURES

- Long term durability
- Low natural frequency / High vibration isolation
- Low water absorption
- Low creep rate

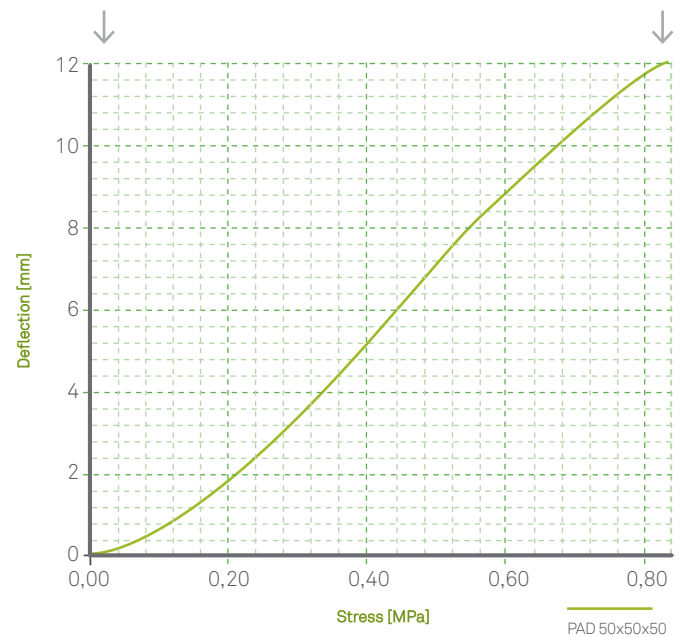
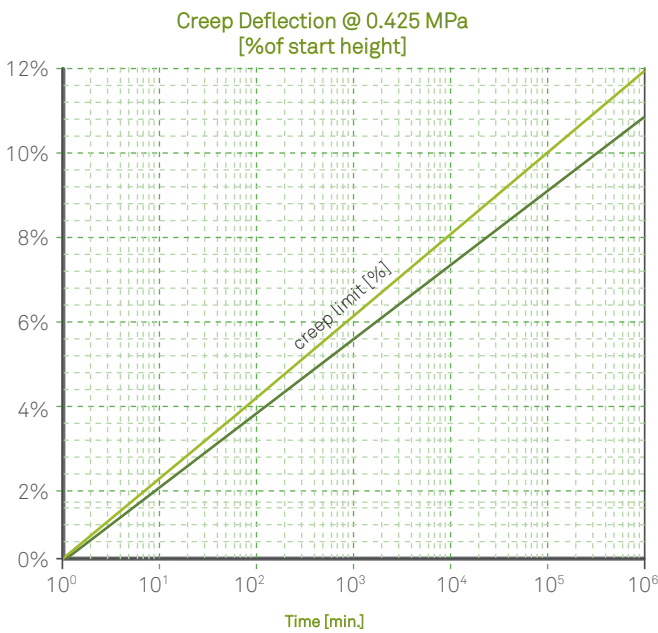
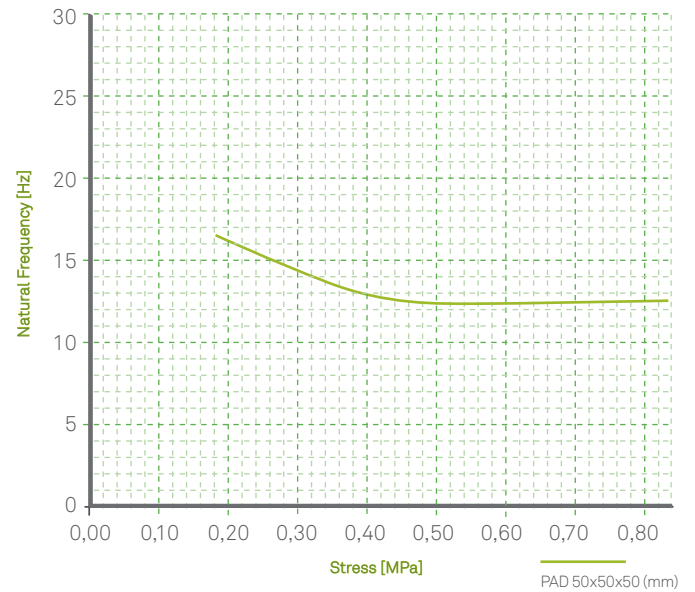
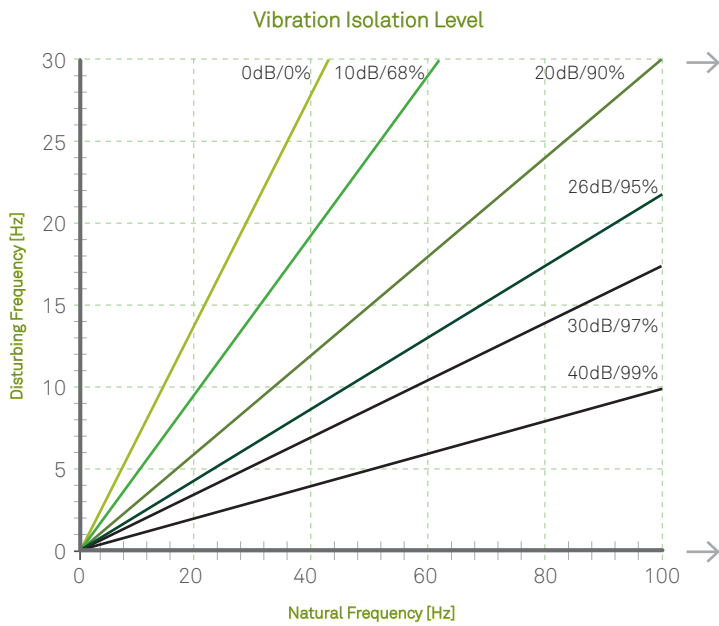
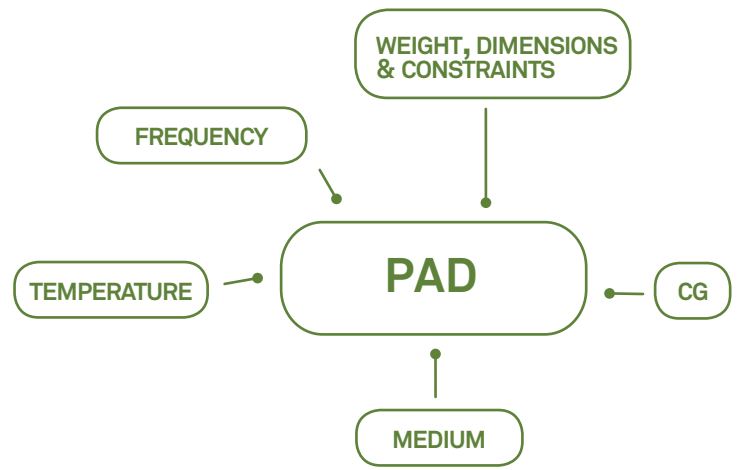
RoHS Compliant  
AMORIM CORK COMPOSITES



## Selection Guideline

Material selection can be made using the Static/Dynamic E-Module in the respective load range or using the Vibration Isolation Level Abacus below:

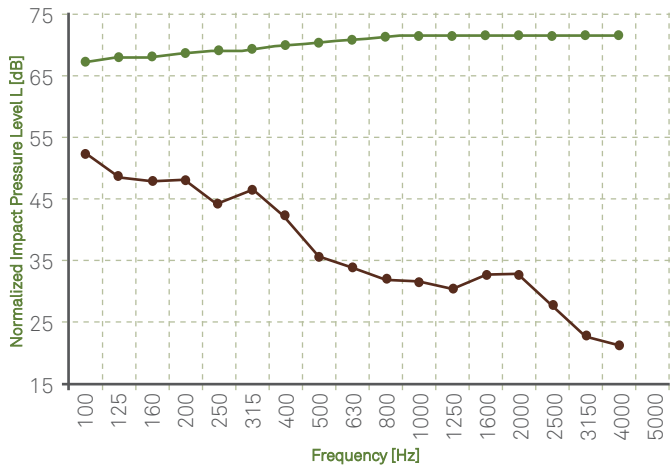
- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added to the above deflection via the Creep deflection graph calculating the additional deflection and adding.





### ACOUSTICAL RESULTS

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

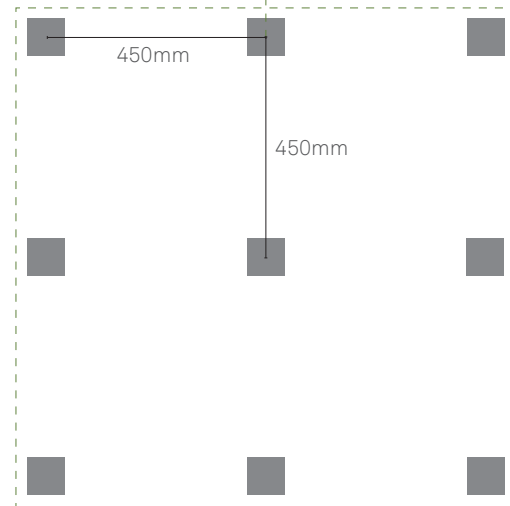
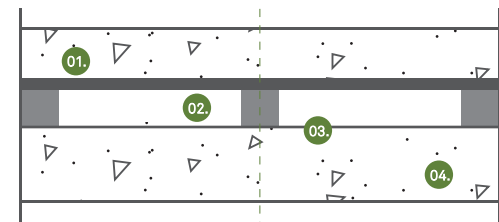


$L_{n,r}$  - Normalized impact sound pressure level of the reference floor with the floor covering under test;  
 $L_{n,r,0}$  - Normalized impact sound pressure level of the Lab reference floor;  
 $\Delta L_w$  - Impact sound pressure level reduction index of the covering under test, on a normalized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

Ref. Test Report	Dimensions	$L_{n,r,w}$ ( $C_{l,r}$ )	$\Delta L_w$ ( $C_{l,\Delta}$ )
A15-177	50x50x50 (mm)	42 (5) dB	36 (-5) dB

$L_{n,r,0}$  (dB)  
 $L_{n,r}$  (dB) - 50x50x50mm

### TEST APPARATUS [ $\Delta L_w$ & IIC]



- 01. Concrete floating screed with 100mm thickness
- 02. Blackboard with 16mm
- 03. Agglomerated cork and recycled rubber pad - VC-PAD-5015
- 04. Reinforced concrete slab of thickness 120mm

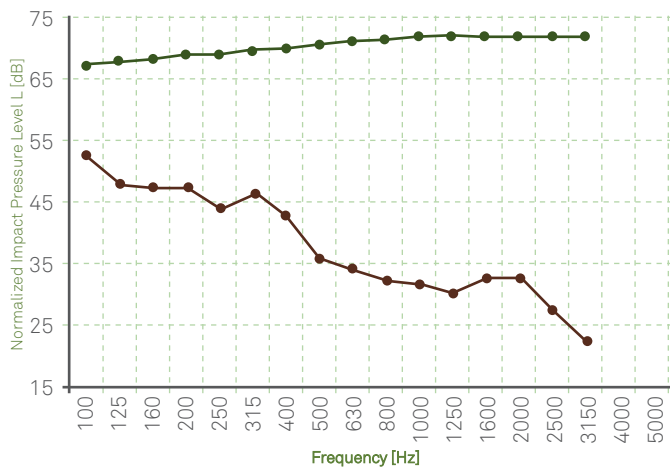
$L_{ref}$  (dB)  
 $L_{ref,c}$  (dB) - 50x50x50mm



### 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.



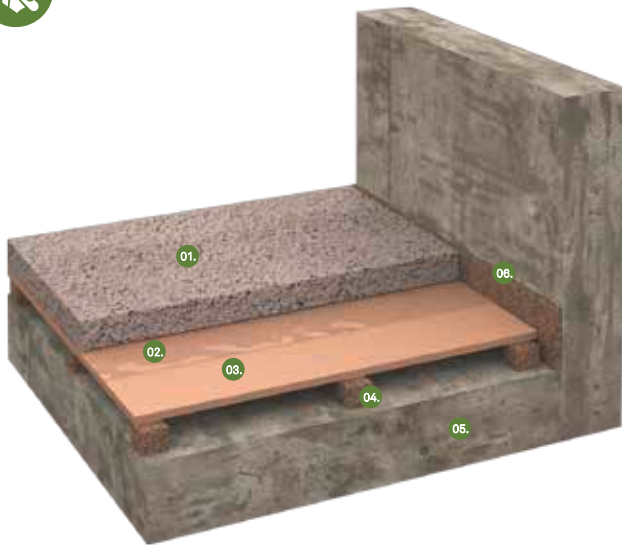
$L_{ref}$  - Normalized impact sound pressure level of the reference floor with the floor covering under test;  
 $L_{ref,c}$  - Normalized impact sound pressure level of the Lab reference floor;

Dimensions	IIC <sub>c</sub>
50x50x50 (mm)	67dB





## INSTALLATION



01.

Concrete floating screed

02.

Polyethylene foil

03.

Blackboard

04.

Agglomerated cork and recycled rubber pad VC-PAD-5015

05.

Reinforced concrete slab

06.

Perimeter insulation barrier

### 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.

### Installation Instruction for Acousticork VC-PAD 5015

Unpack the Acousticork VC-PAD-5015 at least 24h before the installation and store it in the room where the application will take place.

Loosely place the product according with the placement and distances defined in the project specifications ensuring the correct distribution of loads.

Lay the blackboard panels on top of the pads, making

sure that their position doesn't change with this operation, and that the joints of the panels are butted tight.

Install polyethylene foil (PE) over the blackboard panels and perimeter insulation barrier in order to make sure that no concrete water can penetrate the system. It is recommended to install this foil with sufficient overlaps.

### Perimeter Insulation Barrier

Install a perimeter insulation barrier vertically around the entire room perimeter. It should have enough width to decouple the screed from the walls and consequently reduce the transmission of marginal noise. The barrier must also be applied around the surface of pipes and ducts or other element protruding from the floor. Spot adhere the strips to the wall using acrylic glue on a bead of silicon sealant.

### Screed and final flooring

Cast a suitable screed over the loose laid PE foil previously installed over the blackboard.

Always follow manufacturers recommended installation instructions.

For detailed installation instructions, please contact us.



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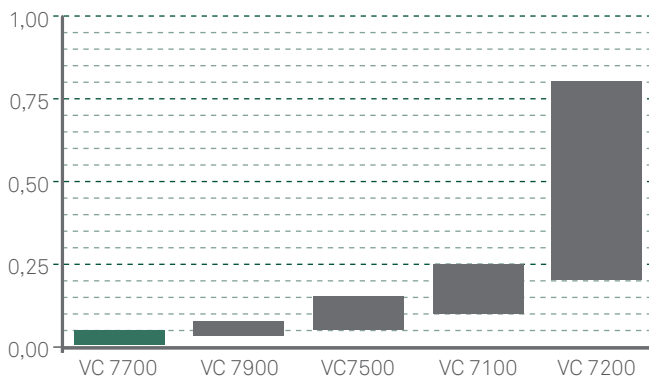
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## VC7700

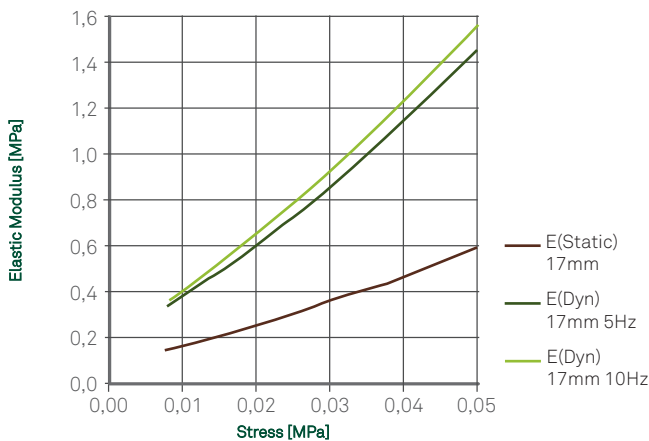
### Material Data Sheet

## RECYCLED RUBBER

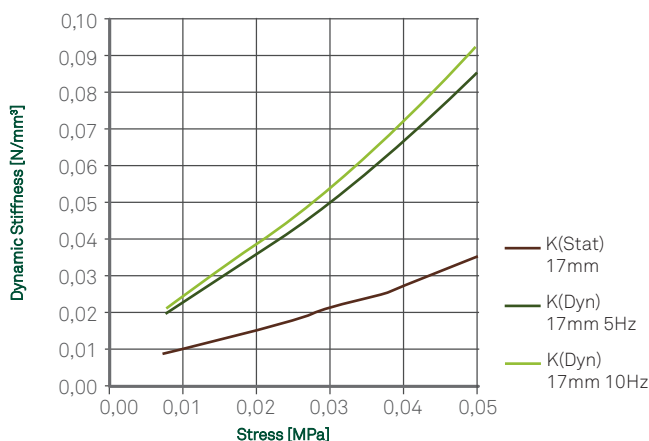
#### WORK LOAD RANGE [MPa]



#### ELASTIC MODULUS [MPa]



#### DYNAMIC STIFFNESS [N/mm²]



VC 7700 is an engineered polyurethane-bound recycled rubber-granulate material with a profiled surface.

This product is suitable for vibration control in construction, used as a mat or strip for ultra low loads, to reduce vibration, absorb shock and structural borne noise.

#### LOAD RANGE

- **PERMANENT STATIC** 0,01-0,05 MPa (1,5 - 7,3 psi)

#### E-MODULE

- **STATIC<sup>(1)</sup>** 0,17-0,60 MPa (25- 87 psi)
- **DYNAMIC<sup>(2)</sup>** 0,35-1,6 MPa (51 - 232 psi)

(1) DIN 53513 (ADAPTED) - TANGENTIAL MODULUS  
(2) DIN 53513 (ADAPTED) - DEPENDING ON LOAD AND FREQUENCY

Compression Set (%) <sup>(1)</sup>	6,2
Tensile Strength (MPa) <sup>(2)</sup>	> 0,25 (36 psi)
Elongation at break (%) <sup>(2)</sup>	> 60
Tear- Resistance (N/mm) <sup>(3)</sup>	> 3,217
Flammability <sup>(4)</sup>	*B2
Density (Kg/m <sup>3</sup> ) <sup>(5)</sup>	550 (34 lb/ft <sup>3</sup> )

(1) DIN 53572 - MEASURED 30MIN AFTER DECOMPRESSION WITH 50% DEFORMATION / 23°C AFTER 72H

(2) DIN 53571

(3) DIN 53515

(4) DIN 4102

(5) DIN D297

\* B2 = NORMAL FLAMMABLE

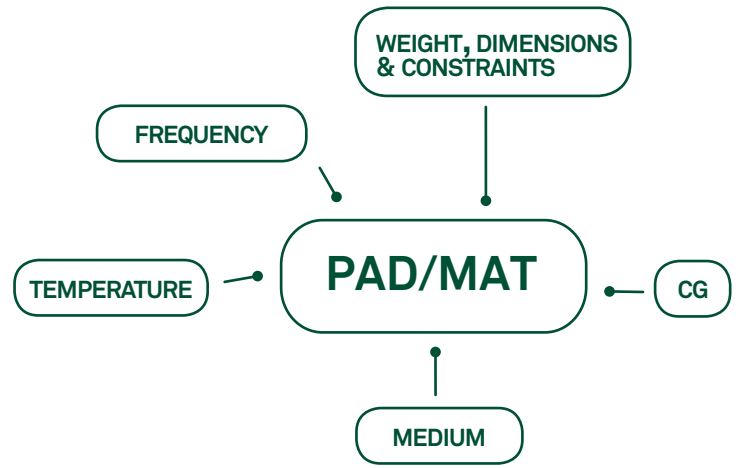
#### FEATURES

- Revalorised product
- Supplied in rolls, sheets or strips
- Available in a width of 1000 or 1250mm and up to a length of 10m.

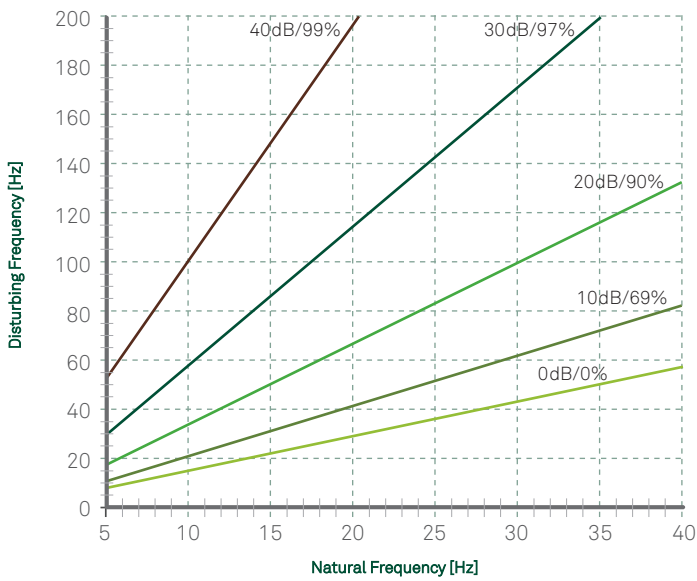
## Selection Guideline

Material selection can be made using the Static/Dynamic E-Module in the respective load range or using the Vibration Isolation Level Abacus below:

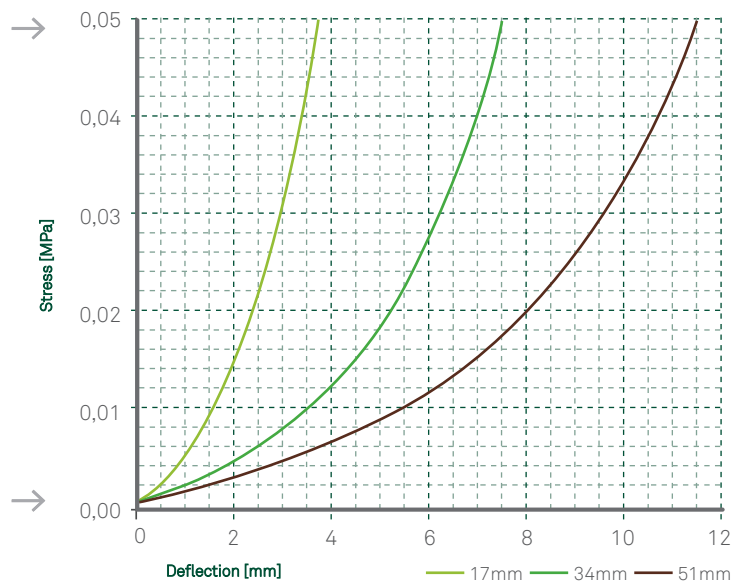
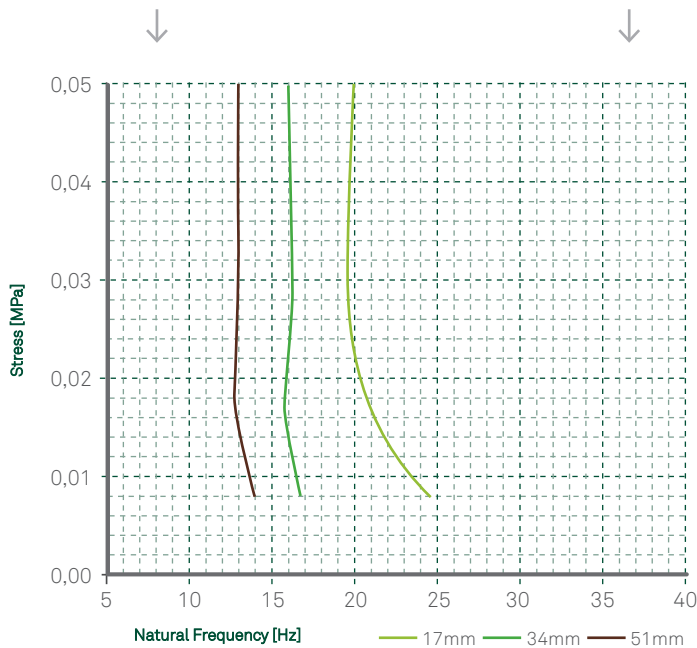
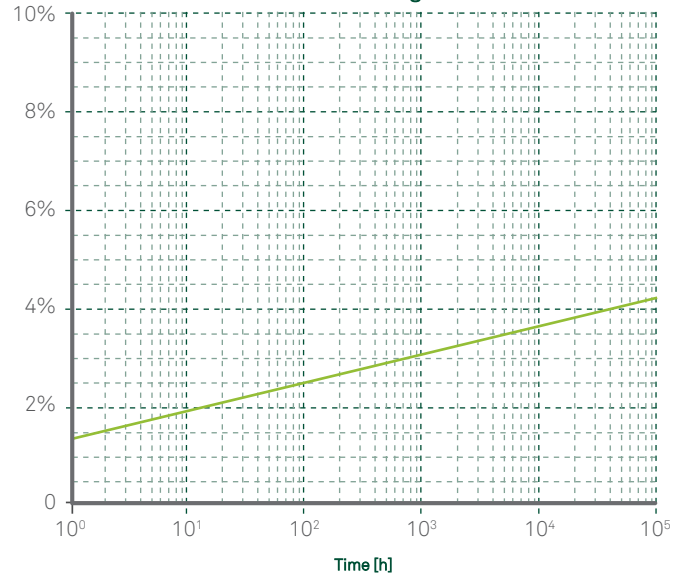
- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added to the above deflection via the Creep deflection graph calculating the additional deflection and adding.



Vibration Isolation

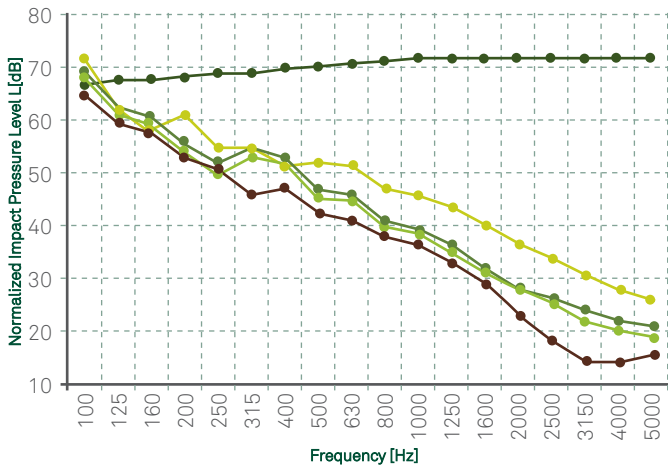


Creep Deflection @ 0.125 MPa  
[% of start height]



Note: 34mm and 51mm thickness achieved through stacking 17mm (profile) thickness layers.  
Note: Samples tested - 300x300 [mm]

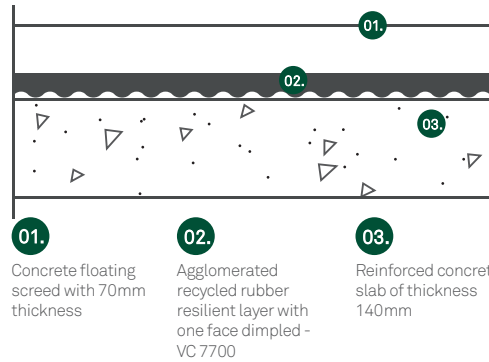
**ACOUSTICAL RESULTS**  
 Test procedure according to ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010 and ISO 717-2:2013 standards.



$L_{n,r}$  - 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;  
 $\Delta L_w$  - Impact sound pressure level reduction index of the covering under test, on a normalized floor;

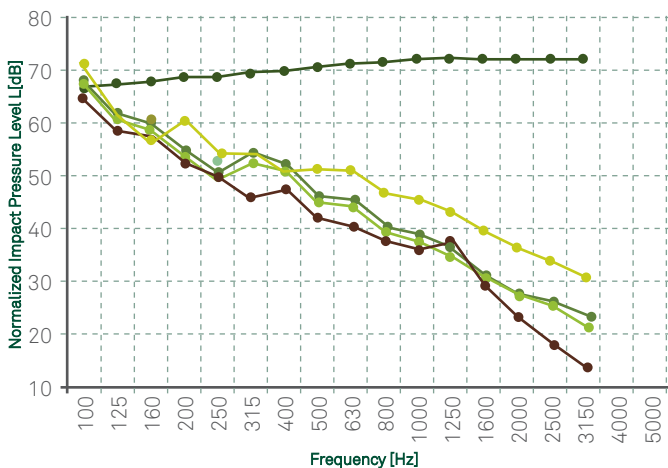
$L_{n,r,0}$  (dB)       $L_{n,r}$  (dB) - 10/5mm       $L_{n,r}$  (dB) - 17/9mm  
 $L_{n,r}$  (dB) - 8/4mm       $L_{n,r}$  (dB) - 12/6mm

**TEST APPARATUS [ $\Delta L_w$  & IIC]**



Ref. Test Report	Thickness	$L_{n,r,w}$ ( $C_{l,r}$ )	$\Delta L_w$ ( $C_{l,\Delta}$ )
ACU 118/09	8/4mm	54 (4) dB	24 (-15) dB
ACL 002/13	10/5mm	53 (3) dB	25 (-14) dB
ACL 019/13	12/6mm	51 (4) dB	27 (-15) dB
ACL 009/15	17/8mm	49 (3) dB	29 (-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.



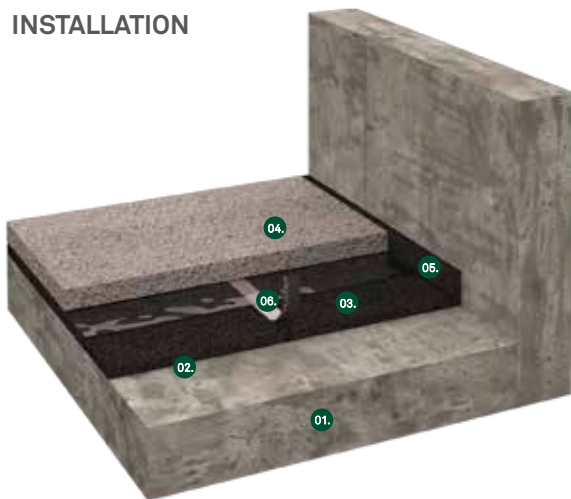
$L_{ref}$  - Normalized impact sound pressure level of the reference floor with the floor covering under test;  
 $L_{ref,c}$  - Normalized impact sound pressure level of the Lab reference floor;

$L_{n,r,0}$  (dB)       $L_{n,r}$  (dB) - 10/5mm       $L_{n,r}$  (dB) - 17/9mm  
 $L_{n,r}$  (dB) - 8/4mm       $L_{n,r}$  (dB) - 12/6mm

Thickness	IIC <sub>c</sub>
8/4 mm	48 dB
10/5 mm	50 dB
12/6 mm	52 dB
17/8 mm	55 dB



## INSTALLATION



01.

Reinforced concrete slab

02.

Vapor barrier

03.

Agglomerated recycled rubber resilient layer - VC 7700

04.

Concrete floating screed

05.

Perimeter insulation barrier

06.

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.

### Installation Instruction for Acousticork VC7700

Unpack the Acousticork VC7700 at least 24h before the installation and store it in the room where the installation will take place. Cut and trim the Acousticork VC 7700 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.

Place the Acousticork VC7700 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 VC7700 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 VC7700 area without gaps. Never mechanically fasten the Acousticork VC7700 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.



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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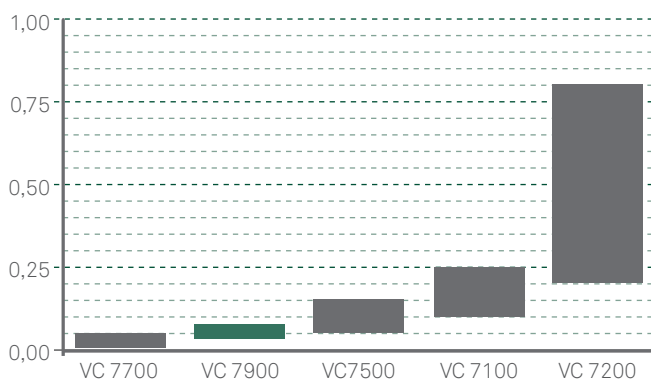


## VC7900

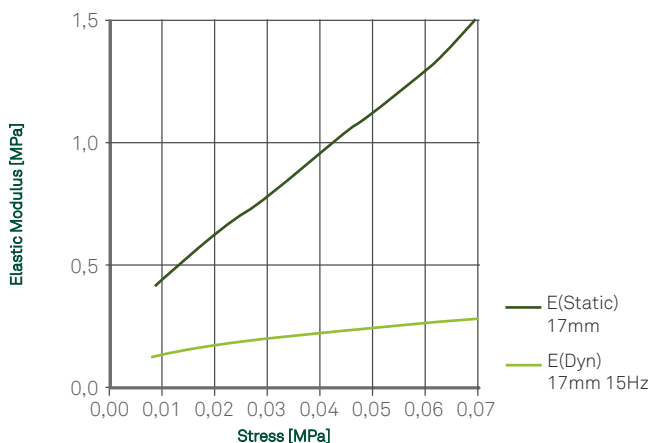
### Material Data Sheet

## RECYCLED RUBBER

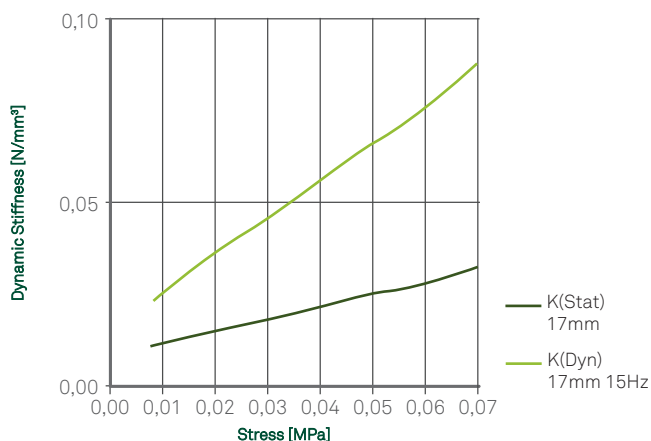
#### WORK LOAD RANGE [MPa]



#### ELASTIC MODULUS [MPa]



#### DYNAMIC STIFFNESS [N/mm³]



VC 7900 is an engineered polyurethane-bound recycled rubber-granulate material with a profiled surface.

This product is suitable for vibration control in construction, used as a mat or strip for ultra low loads, to reduce vibration, absorb shock and structural borne noise.

#### LOAD RANGE

- PERMANENT STATIC 0,025-0,070 MPa (3,6 - 10,2 psi)

#### E-MODULE

- STATIC<sup>(1)</sup> 0,04-0,25 MPa (6 - 36 psi psi)
- DYNAMIC<sup>(2)</sup> 0,27-1,60 MPa (39 - 232 psi)

(1) DIN 53513 (ADAPTED) - TANGENTIAL MODULUS  
(2) DIN 53513 (ADAPTED) - DEPENDING ON LOAD AND FREQUENCY

Compression Set (%) <sup>(1)</sup>	6,8
Tensile Strength (MPa) <sup>(2)</sup>	>0,35 (51 psi)
Elongation at break (%) <sup>(2)</sup>	>75
Tear- Resistance (N/mm) <sup>(3)</sup>	>6,497
Flammability <sup>(4)</sup>	*B2
Density (Kg/m³) <sup>(5)</sup>	710 (44 lb/ft³)

(1) DIN 53572 - MEASURED 30MIN AFTER DECOMPRESSION WITH 50% DEFORMATION / 23°C AFTER 72H

(2) DIN 53571

(3) DIN 53515

(4) DIN 4102

(5) DIN D297

\* B2 = NORMAL FLAMMABLE

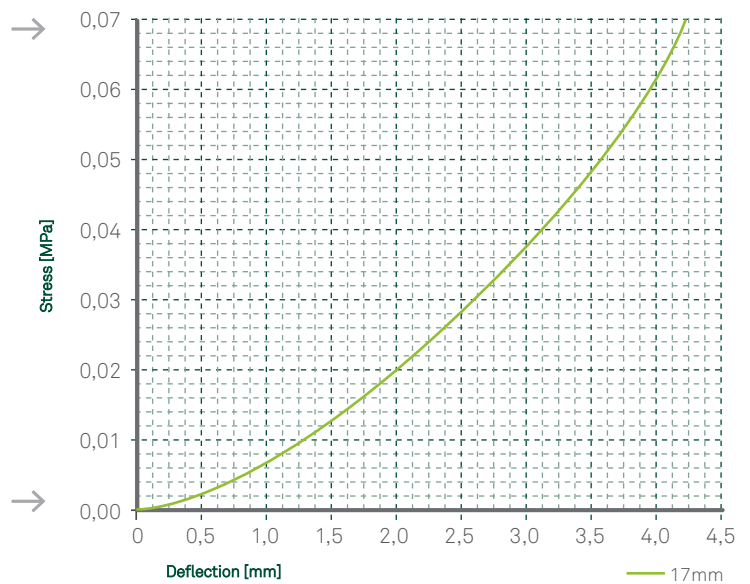
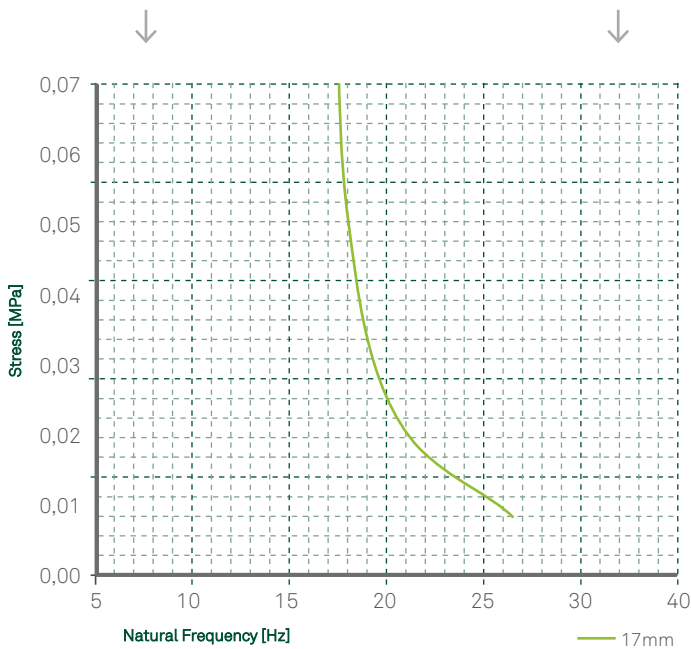
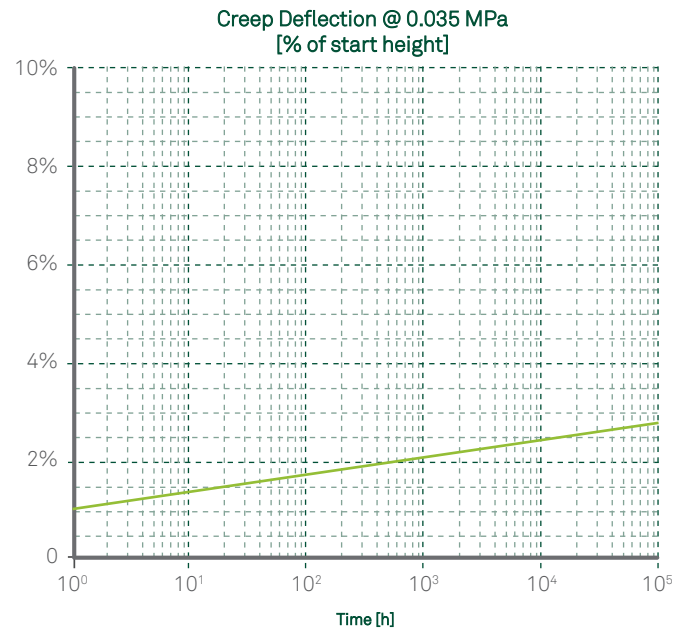
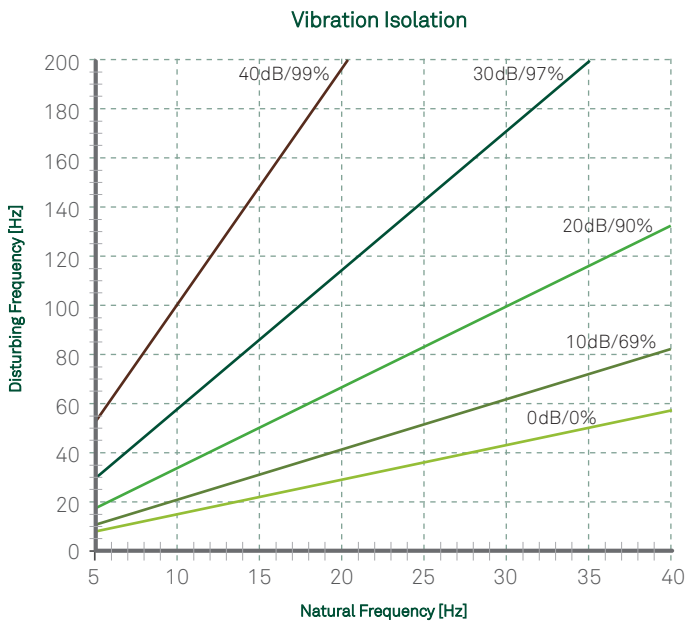
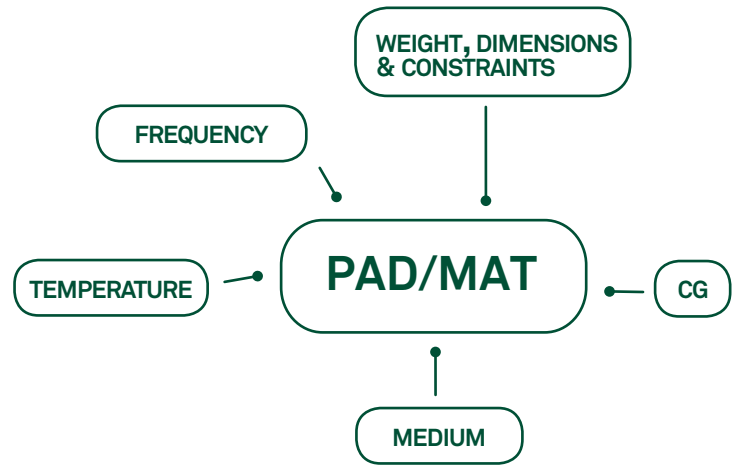
#### FEATURES

- Revalorised product
- Supplied in rolls, sheets or strips
- Available in a width of 1000 or 1250mm and up to a length of 10m

## Selection Guideline

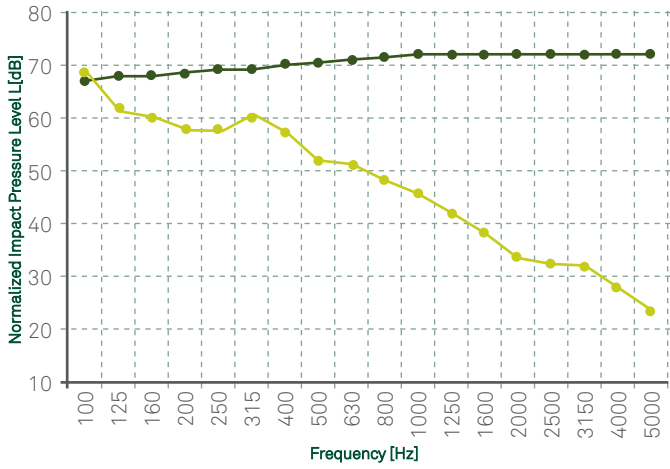
Material selection can be made using the Static/Dynamic E-Module in the respective load range or using the Vibration Isolation Level Abacus below:

- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added to the above deflection via the Creep deflection graph calculating the additional deflection and adding.



Note: Samples tested - 300x300 [mm]

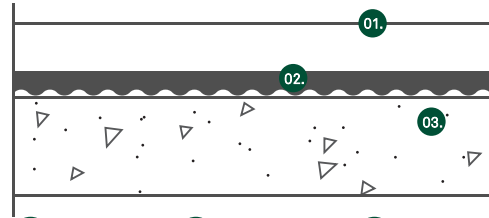
**ACOUSTICAL RESULTS**  
 Test procedure according to ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010 and ISO 717-2:2013 standards.



$L_{n,r}$  - 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;  
 $\Delta L_w$  - Impact sound pressure level reduction index of the covering under test, on a normalized floor;

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

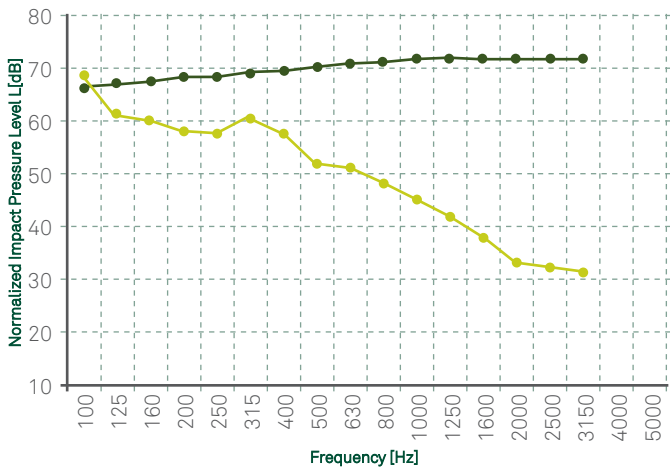
**TEST APPARATUS [ $\Delta L_w$  & IIC]**



- 01. Concrete floating screed with 70mm thickness
- 02. Agglomerated recycled rubber resilient layer with one face dimpled - VC 7900
- 03. Reinforced concrete slab of thickness 140mm

Ref. Test Report	Thickness	$L_{n,r,w}$ ( $C_{l,r}$ )	$\Delta L_w$ ( $C_{l,\Delta}$ )
ACL168/15	8/4mm	55 (1) dB	23 (-12) 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.



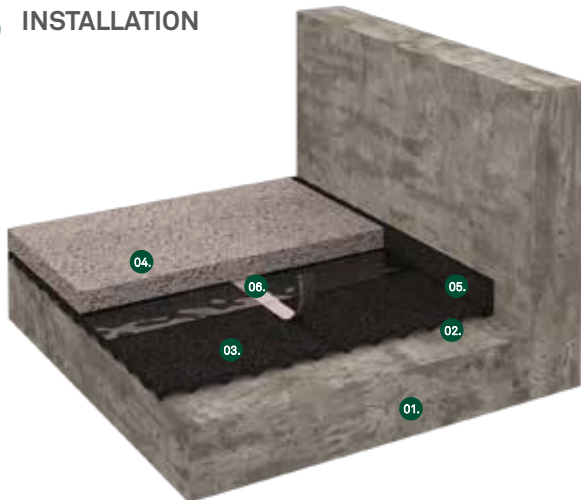
$L_{ref}$  - Normalized impact sound pressure level of the reference floor with the floor covering under test;  
 $L_{ref,c}$  - Normalized impact sound pressure level of the Lab reference floor;

$L_{ref}$  (dB)  
 $L_{ref,c}$  (dB) - 8/4 mm

Thickness	IIC <sub>c</sub>
8/4 mm	51 dB



## INSTALLATION



01.

Reinforced concrete slab

02.

Vapor barrier

03.

Agglomerated recycled rubber resilient layer with one face dimpled - VC 7900

04.

Concrete floating screed

05.

Perimeter insulation barrier

06.

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.

### Installation Instruction for Acousticork VC7900

Unpack the Acousticork VC7900 at least 24h before the installation and store it in the room where the installation will take place. Cut and trim the Acousticork VC7900 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. Dimple side must face down.

Place the Acousticork VC7900 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 VC7900 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 VC7900 area without gaps. Never mechanically fasten the Acousticork VC7900 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.



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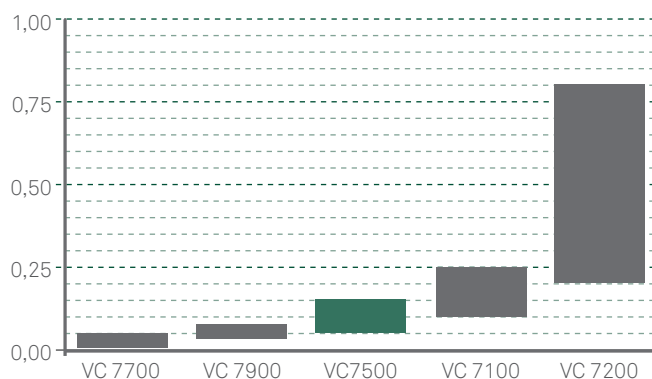
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## VC7500

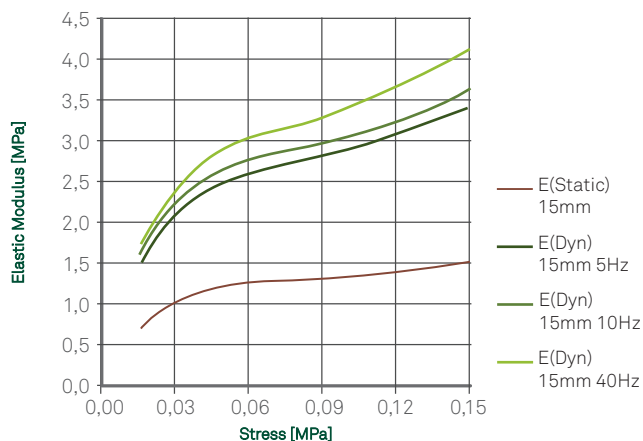
### Material Data Sheet

## RECYCLED RUBBER

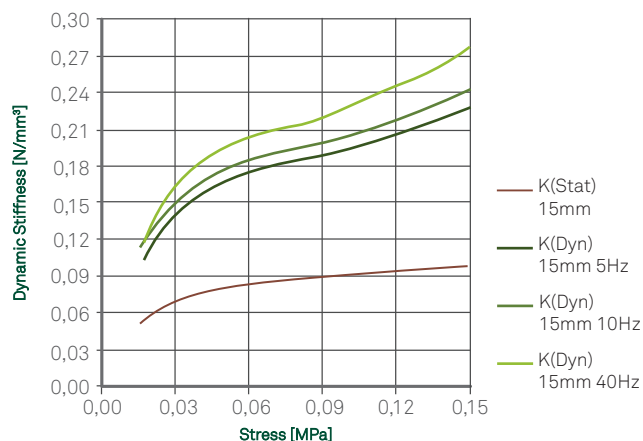
### WORK LOAD RANGE [MPa]



### ELASTIC MODULUS [MPa]



### DYNAMIC STIFFNESS [N/mm<sup>3</sup>]



VC 7500 is an engineered polyurethane-bound recycled rubber-granulate material.

This product is suitable for vibration control in construction, rail infrastructure and industrial applications, used as a mat or strip for low loads, to reduce vibration, absorb shock and structural borne noise.

### LOAD RANGE

- **PERMANENT STATIC** 0,05-0,15 MPa (7,3 - 21,8 psi)

### E-MODULE

- **STATIC<sup>(1)</sup>** 1,20-1,50 MPa (174 - 218 psi)
- **DYNAMIC<sup>(2)</sup>** 2,30-4,30 MPa (333 - 624psi)

(1) DIN 53513 (ADAPTED) - TANGENTIAL MODULUS  
(2) DIN 53513 (ADAPTED) - DEPENDING ON LOAD AND FREQUENCY

Compression Set (%) <sup>(1)</sup>	1,6
Tensile Strength (MPa) <sup>(2)</sup>	>0,25 (36 psi)
Elongation at break (%) <sup>(2)</sup>	> 60
Tear- Resistance (N/mm <sup>3</sup> ) <sup>(3)</sup>	> 3,5
Flammability <sup>(4)</sup>	*B2
Density (Kg/m <sup>3</sup> ) <sup>(5)</sup>	550 (34 lb/ft3)

(1) DIN 53572 - MEASURED 30MIN AFTER DECOMPRESSION WITH 50% DEFORMATION / 23°C AFTER 72H

(2) DIN 53571

(3) DIN 53515

(4) DIN 4102

(5) DIN D297

\* B2 = NORMAL FLAMMABLE

### FEATURES

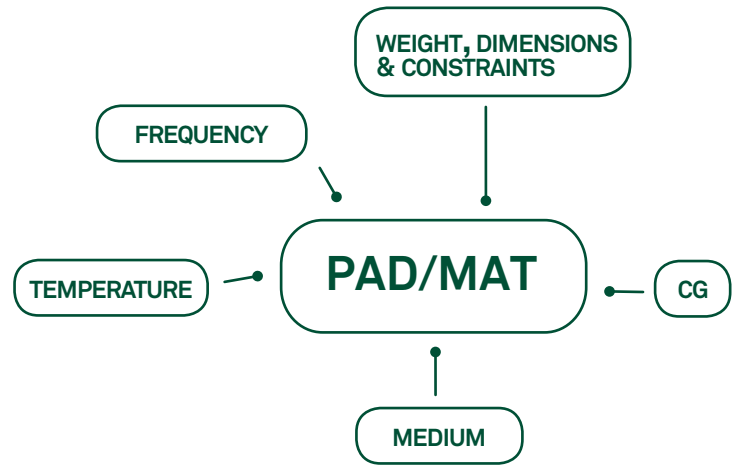
- Revalorised product
- Supplied in rolls, sheets or strips
- Available in a width of 1000 or 1250mm and up to a length of 10m



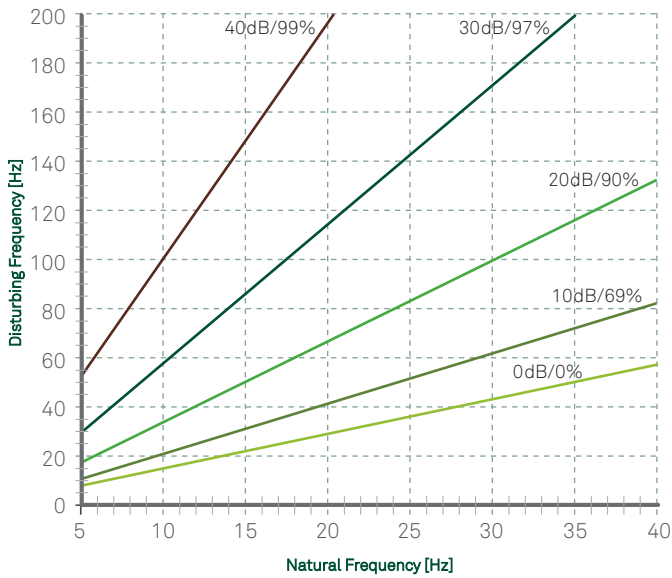
## Selection Guideline

Material selection can be made using the Static/Dynamic E-Module in the respective load range or using the Vibration Isolation Level Abacus below:

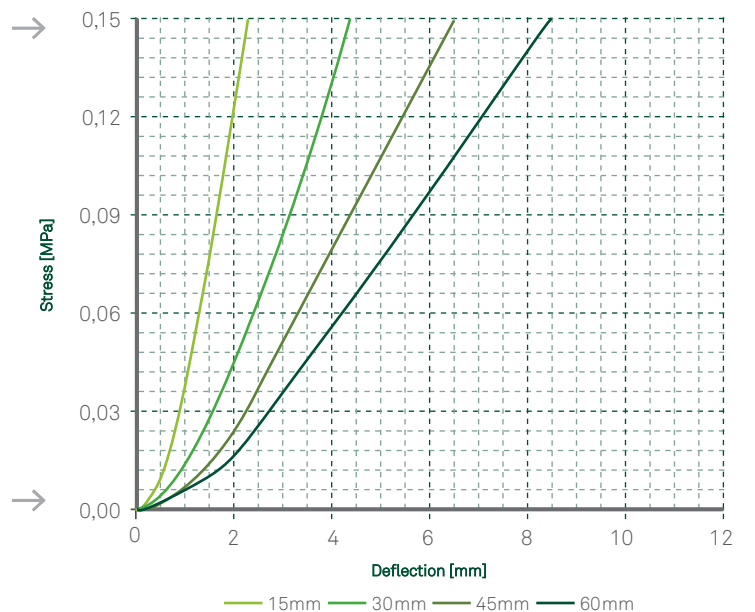
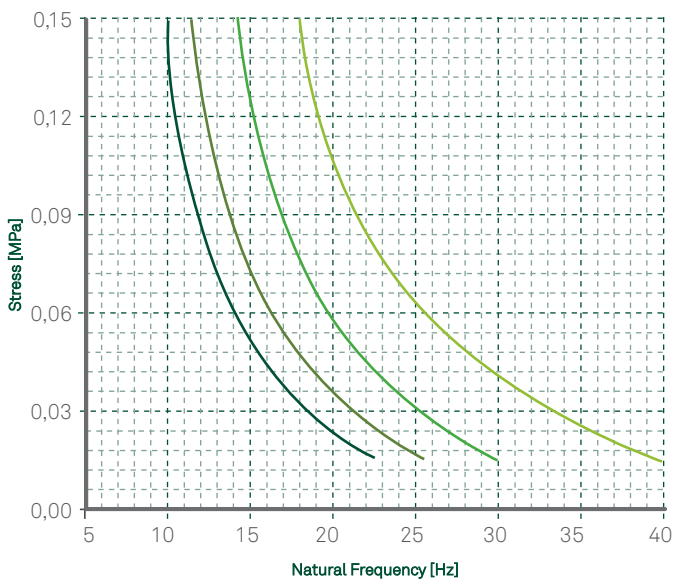
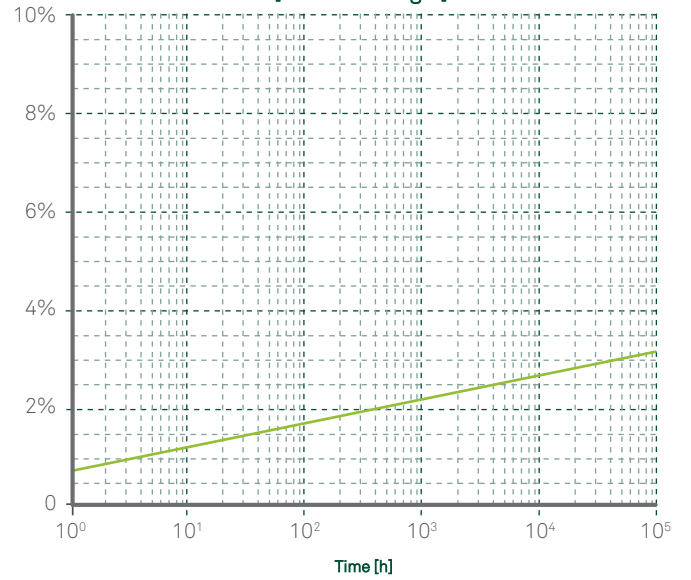
- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added to the above deflection via the Creep deflection graph calculating the additional deflection and adding.



Vibration Isolation

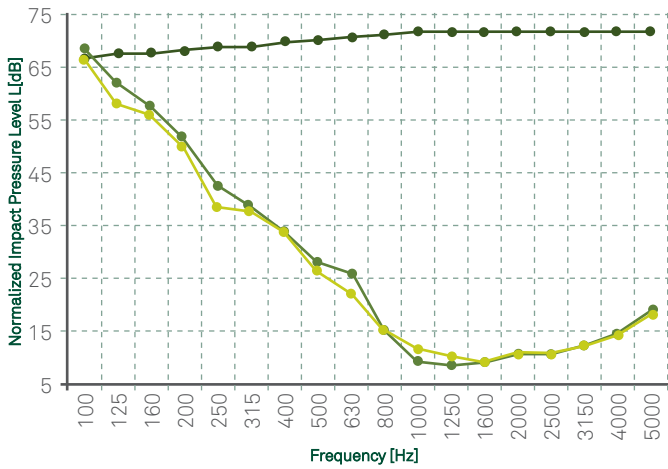


Creep Deflection @ 0.125 MPa  
[% of start height]



Note: 30mm, 45mm and 60mm thickness achieved through stacking 15mm (flat) thickness layers.  
Note: Samples tested - 300x300 [mm]

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

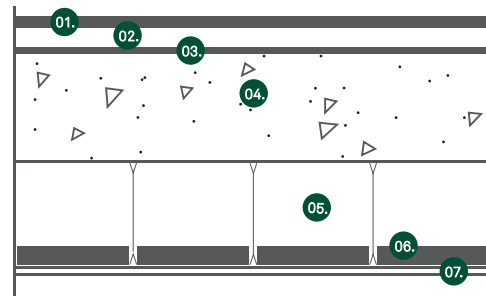


$L_{n,r}$  - Normalized impact sound pressure level of the reference floor with the floor covering under test;  
 $L_{n,r,0}$  - Normalized impact sound pressure level of the Lab reference floor;  
 $\Delta L_w$  - Impact sound pressure level reduction index of the covering under test, on a normalized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

$L_{n,r,0}$  (dB)       $L_{n,r}$  (dB) - 4,5mm (Stone)       $L_{n,r}$  (dB) - 4,5mm (GDW)\*

\*Glued Down Wood

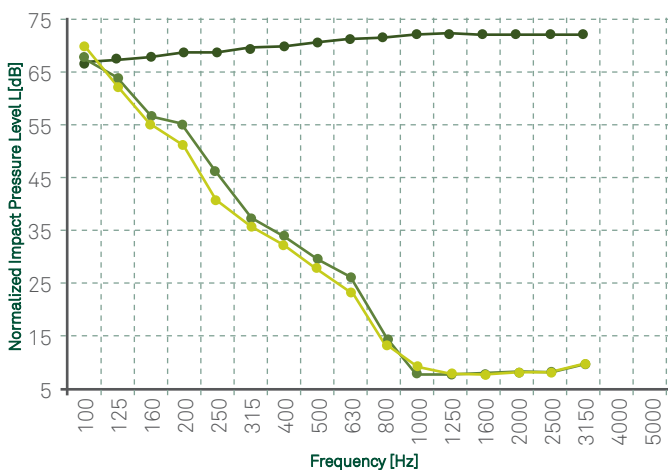
**TEST APPARATUS [ $\Delta L_w$  & IIC]**



- 01.** Glued Down Wood with 21mm thickness or natural stone plates with 20mm thickness.
- 02.** Concrete Floating screed with 30mm thickness.
- 03.** Agglomerated recycled rubber resilient layer - VC 7500
- 04.** Reinforced concrete slab of thickness 140mm.
- 05.** Air gap with 150mm.
- 06.** Mineral wool with 50mm thickness and low density.
- 07.** Gypsum boards with 12mm thickness.

Ref. Test Report	Thickness	Flooring	$L_{n,r,w}(C_{l,r})$	$\Delta L_w(C_{l,\Delta})$
ACL 289/15	4,5 mm	Glue Down Wood	50 (5) dB	28 (-16) dB
ACL 283/15	4,5 mm	Stone	48 (5) dB	30 (-16) dB

**ACOUSTICAL RESULTS**  
 Test procedure adapted from ASTM E2179-03; AST E492-04 and ASTM E989-89 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;

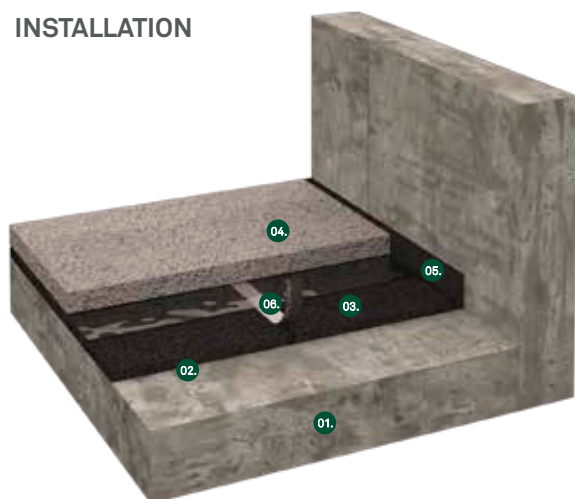
$L_{n,r,0}$  (dB)       $L_{n,r}$  (dB) - 4,5mm (Stone)       $L_{n,r}$  (dB) - 4,5mm (GDW)\*

\*Glued Down Wood

Ref. Test Report	Thickness	Flooring	IIC <sub>c</sub>
ACL 290/15	4,5 mm	Glue Down Wood	52 dB
ACL 283/15	4,5 mm	Stone	49 dB



## INSTALLATION



01.

Reinforced  
concrete slab

02.

Vapor  
barrier

03.

Agglomerated recycled rubber  
resilient layer - VC 7500

04.

Concrete floating  
screed

05.

Perimeter insulation  
barrier

06.

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.

### Installation Instruction for Acousticork VC7500

Unpack the Acousticork VC7500 at least 24h before the installation and store it in the room where the installation will take place. Cut and trim the Acousticork VC 7500 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.

Place the Acousticork VC7500 directly against the insulation perimeter barrier already installed. Proceed to cover the entire floor making sure that the joints are butted and use an adequate tape to fix it. After completion, the Acousticork VC7500 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 VC7500 area without gaps. Never mechanically fasten the Acousticork VC7500 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.



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).

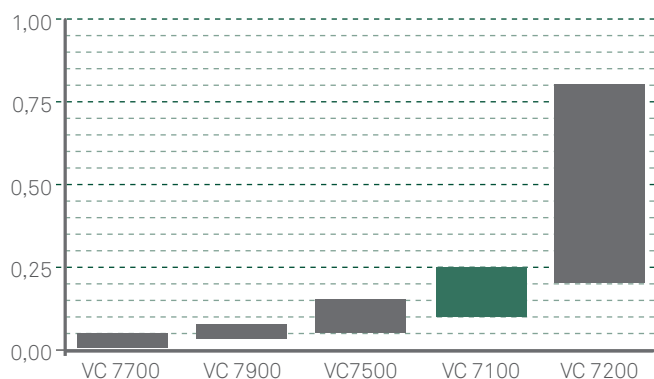
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## VC7100

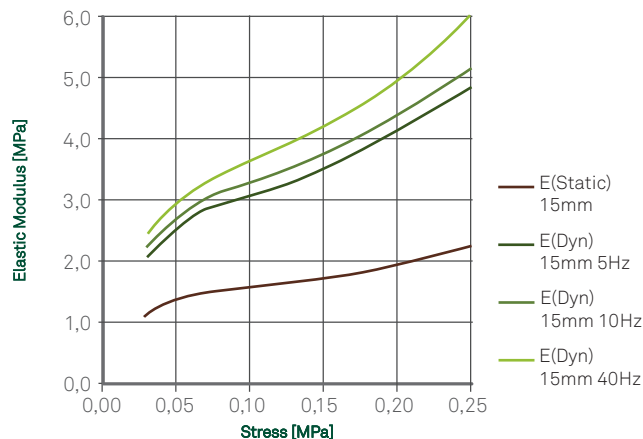
### Material Data Sheet

## RECYCLED RUBBER

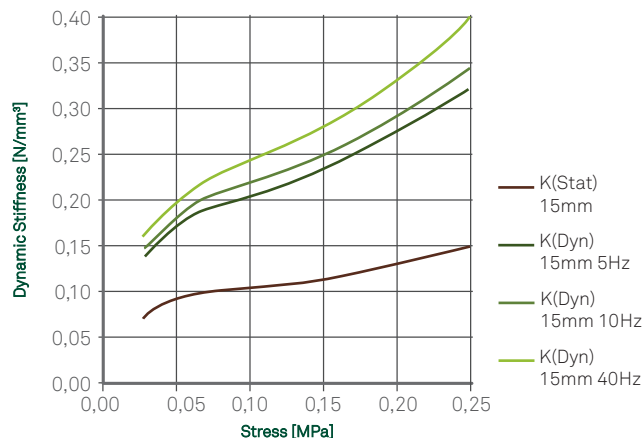
#### WORK LOAD RANGE [MPa]



#### ELASTIC MODULUS [MPa]



#### DYNAMIC STIFFNESS [N/mm<sup>2</sup>]



VC 7100 is an engineered polyurethane-bound recycled rubber-granulate material.

This product is suitable for vibration control in construction applications, used as a mat or strip for medium loads, to reduce vibration, absorb shock and structural borne noise.

#### LOAD RANGE

- **PERMANENT STATIC** 0,10-0,25 MPa (1,5 - 36,3 psi)

#### E-MODULE

- **STATIC<sup>(1)</sup>** 1,50-2,10 MPa (218 - 305 psi)
- **DYNAMIC<sup>(2)</sup>** 2,00-6,00 MPa (377 - 870 psi)

(1) DIN 53513 (ADAPTED) - TANGENTIAL MODULUS  
(2) DIN 53513 (ADAPTED) - DEPENDING ON LOAD AND FREQUENCY

Compression Set (%) <sup>(1)</sup>	4,1
Tensile Strength (MPa) <sup>(2)</sup>	> 0,35 (51 psi)
Elongation at break (%) <sup>(2)</sup>	> 75
Tear- Resistance (N/mm) <sup>(3)</sup>	> 6,5
Flammability <sup>(4)</sup>	*B2
Density (Kg/m <sup>3</sup> ) <sup>(5)</sup>	710 (44 lb/ft <sup>3</sup> )

(1) DIN 53572 - MEASURED 30MIN AFTER DECOMPRESSION WITH 50% DEFORMATION / 23°C AFTER 72H  
(2) DIN 53571  
(3) DIN 53515  
(4) DIN 4102  
(5) DIN D297  
\* B2 = NORMAL FLAMMABLE

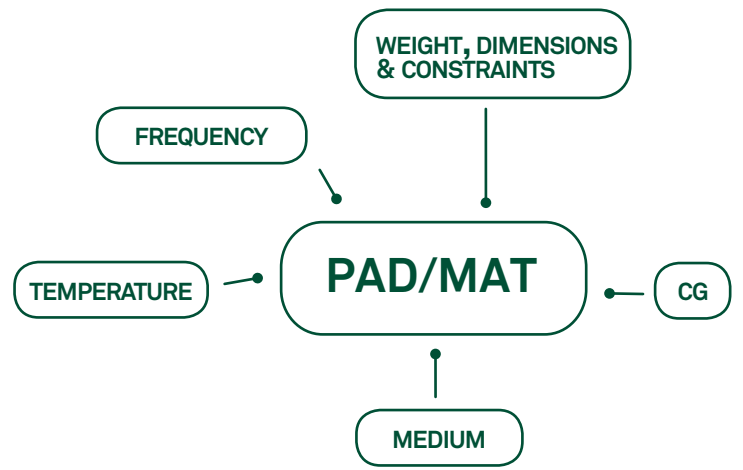
#### FEATURES

- Revalorised product
- Supplied in rolls, sheets or strips
- Available in a width of 1000 or 1250mm and up to a length of 10m

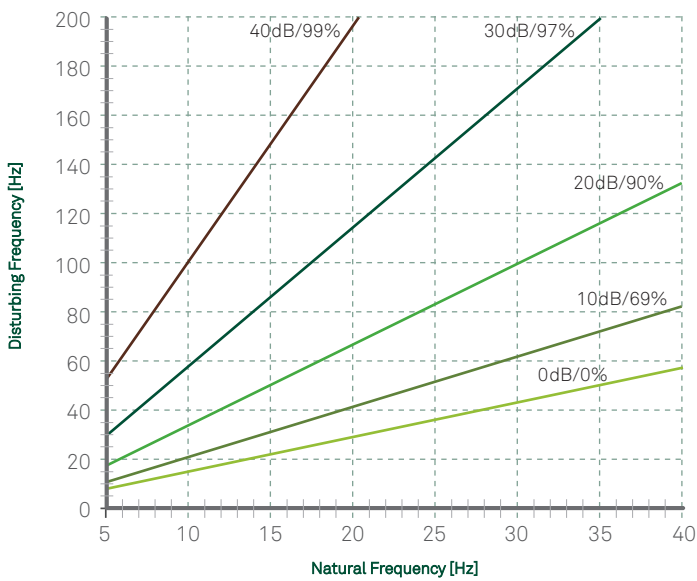
## Selection Guideline

Material selection can be made using the Static/Dynamic E-Module in the respective load range or using the Vibration Isolation Level Abacus below:

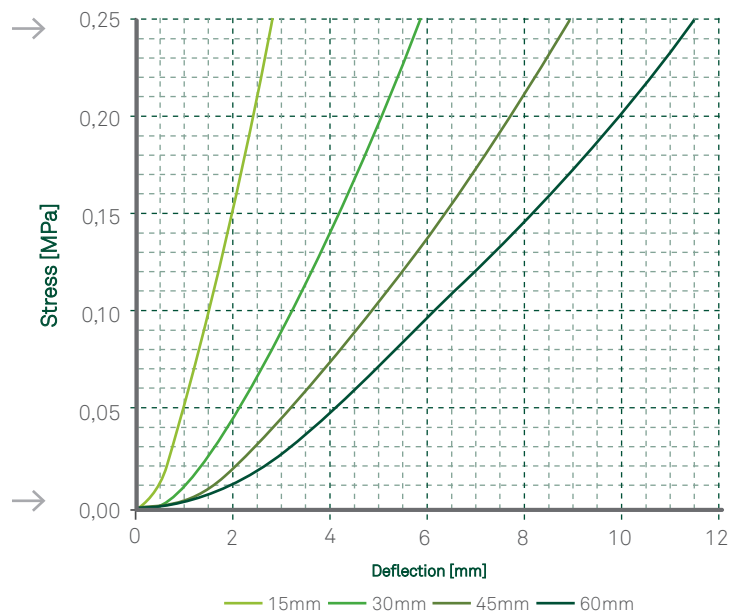
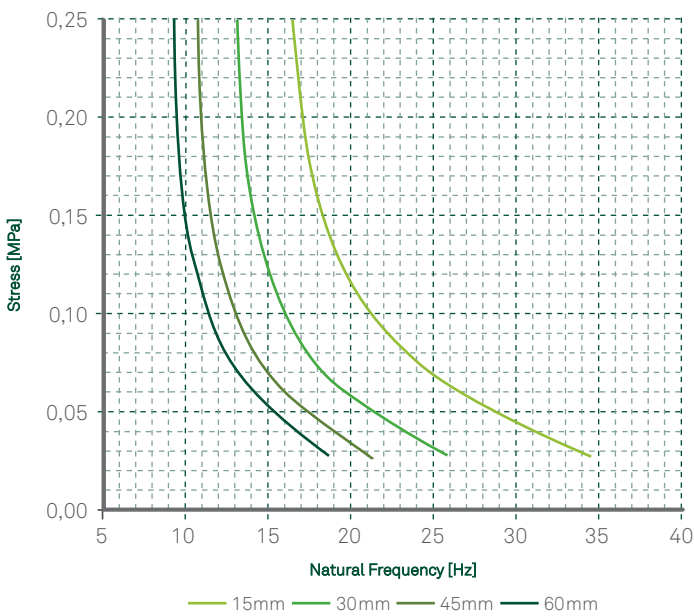
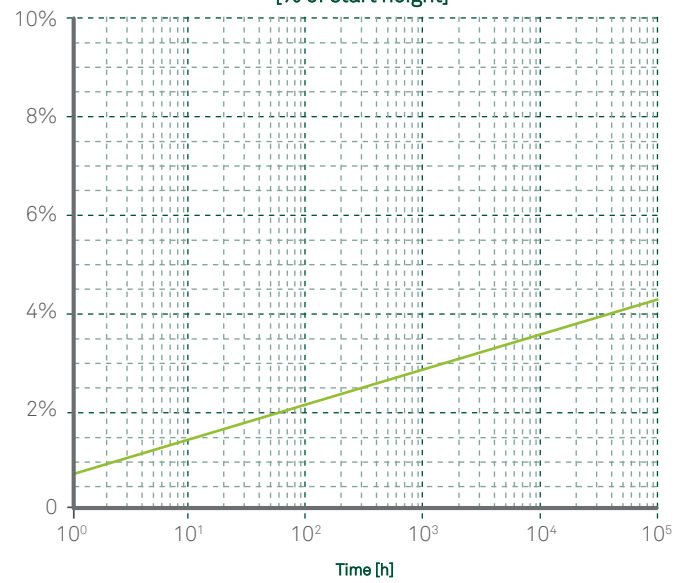
- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added to the above deflection via the Creep deflection graph calculating the additional deflection and adding.



Vibration Isolation



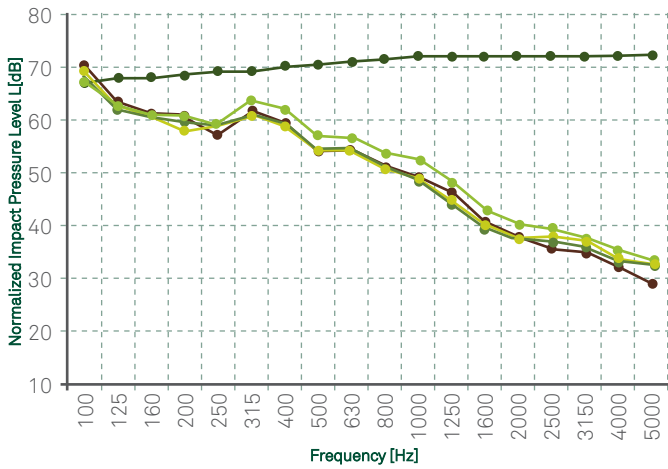
Creep Deflection @ 0.125 MPa  
[% of start height]



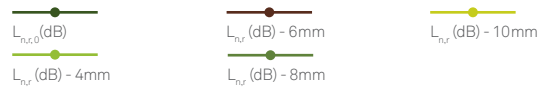
Note: 30mm, 45mm and 60mm thickness achieved through stacking 15mm (flat) thickness layers.  
Note: Samples tested - 300x300 [mm]



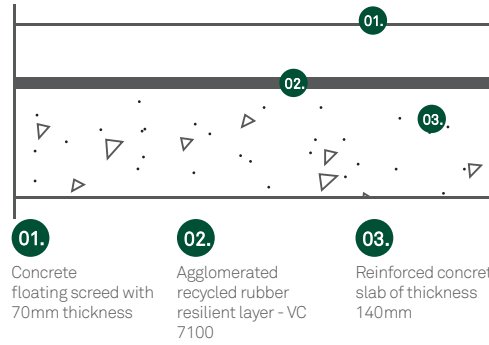
**ACOUSTICAL RESULTS**  
 Test procedure according to ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010 and ISO 717-2:2013 standards.



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

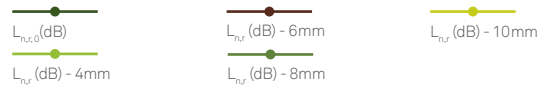
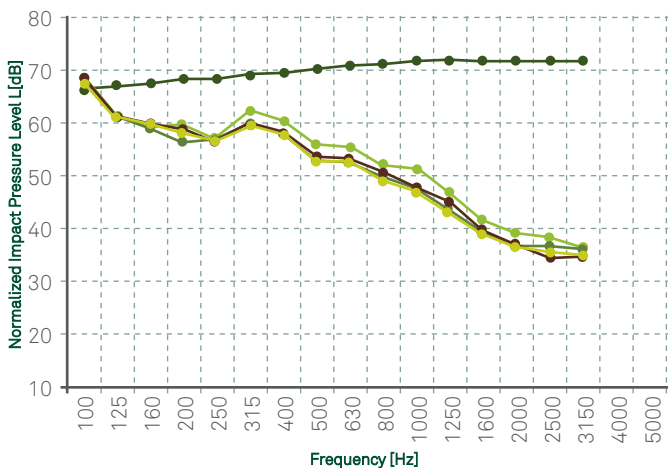


**TEST APPARATUS [ $\Delta L_w$  & IIC]**



Ref. Test Report	Thickness	$L_{n,i,w} (C_{i,r})$	$\Delta L_w (C_{i,\Delta})$
ACL100/15	10 mm	55 (1) dB	23 (-12) dB
ACL099/15	8 mm	55 (1) dB	23 (-12) dB
ACL101/15	6 mm	56 (1) dB	22 (-12) dB
ACL102/15	4 mm	56 (2) dB	22 (-12) 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.

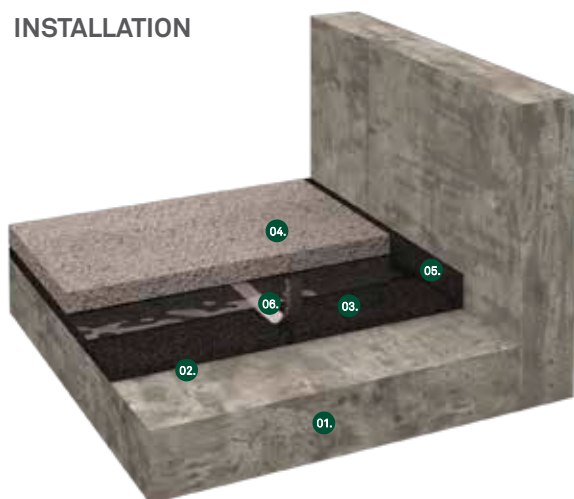


$L_{n,i}$  - Normalized impact sound pressure level of the reference floor with the floor covering under test;  
 $L_{n,i,0}$  - Normalized impact sound pressure level of the Lab reference floor;

Thickness	IIC <sub>c</sub>
4 mm	50 dB
6 mm	50 dB
8 mm	51 dB
10 mm	51 dB



## INSTALLATION



01.

Reinforced concrete slab

02.

Vapor barrier

03.

Agglomerated recycled rubber resilient layer - VC 7100

04.

Concrete floating screed

05.

Perimeter insulation barrier

06.

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.

### Installation Instruction for Acousticork VC 7100

Unpack the Acousticork VC7100 at least 24h before the installation and store it in the room where the installation will take place. Cut and trim the Acousticork VC7100 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.

Place the Acousticork VC7100 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 VC7100 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 VC7100 area without gaps. Never mechanically fasten the Acousticork VC7100 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.



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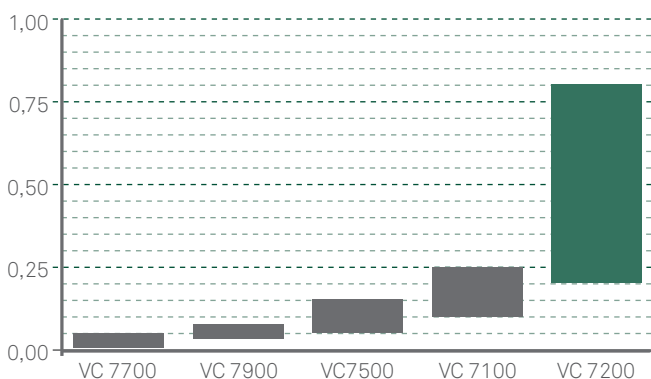
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## VC7200

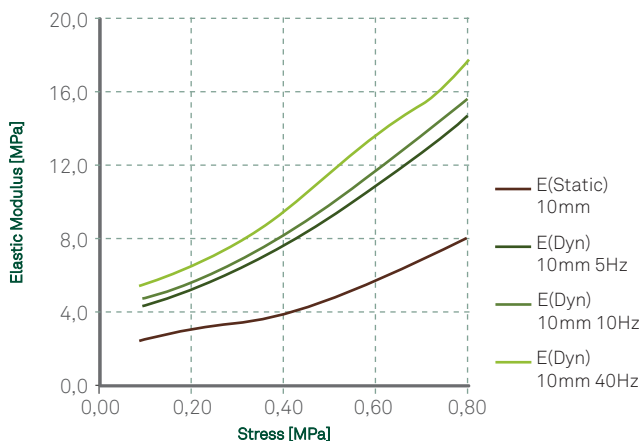
### Material Data Sheet

## RECYCLED RUBBER

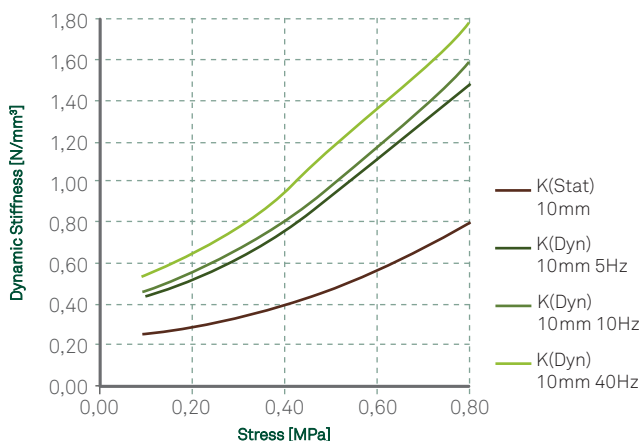
#### WORK LOAD RANGE [MPa]



#### ELASTIC MODULUS [MPa]



#### DYNAMIC STIFFNESS [N/mm³]



VC 7200 is an engineered polyurethane-bound recycled rubber-granulate material.

This product is suitable for vibration control in construction applications, used as a mat or strip for medium high loads, to reduce vibration, absorb shock and structural borne noise.

#### LOAD RANGE

- **PERMANENT STATIC** 0,20-0,80 MPa (29 - 116 psi)

#### E-MODULE

- **STATIC<sup>(1)</sup>** 3,00-8,00 MPa (435 - 1160 psi)
- **DYNAMIC<sup>(2)</sup>** 5,50-18,0 MPa (798 - 2610 psi)

(1) DIN 53513 (ADAPTED) - TANGENTIAL MODULUS  
 (2) DIN 53513 (ADAPTED) - DEPENDING ON LOAD AND FREQUENCY

Compression Set (%) <sup>(1)</sup>	4,3
Tensile Strength (MPa) <sup>(2)</sup>	> 0,5 (73 psi)
Elongation at break (%) <sup>(2)</sup>	> 75
Tear- Resistance (N/mm) <sup>(3)</sup>	> 5,6
Flammability <sup>(4)</sup>	*B2
Density (Kg/m <sup>3</sup> ) <sup>(5)</sup>	750 (47 lb/ft <sup>3</sup> )

(1) DIN 53572 - MEASURED 30MIN AFTER DECOMPRESSION WITH 50% DEFORMATION / 23°C AFTER 72H  
 (2) DIN 53571  
 (3) DIN 53515  
 (4) DIN 4102  
 (5) DIN D297  
 \* B2 = NORMAL FLAMMABLE

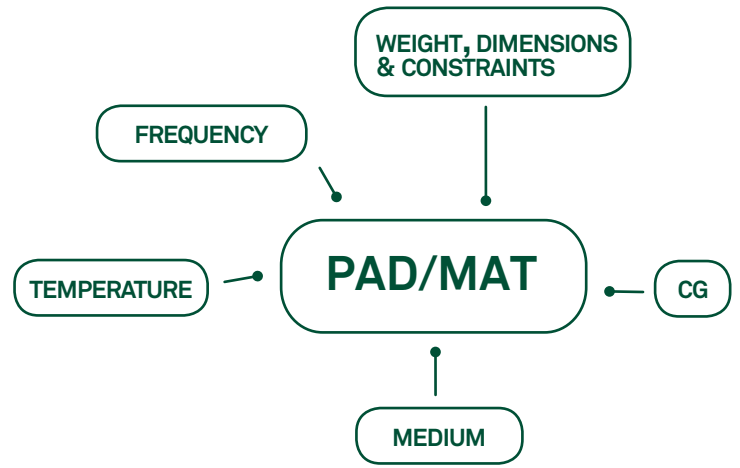
#### FEATURES

- Revalorised product
- Supplied in rolls, sheets or strips
- Available in a width of 1000 or 1250mm and up to a length of 10m

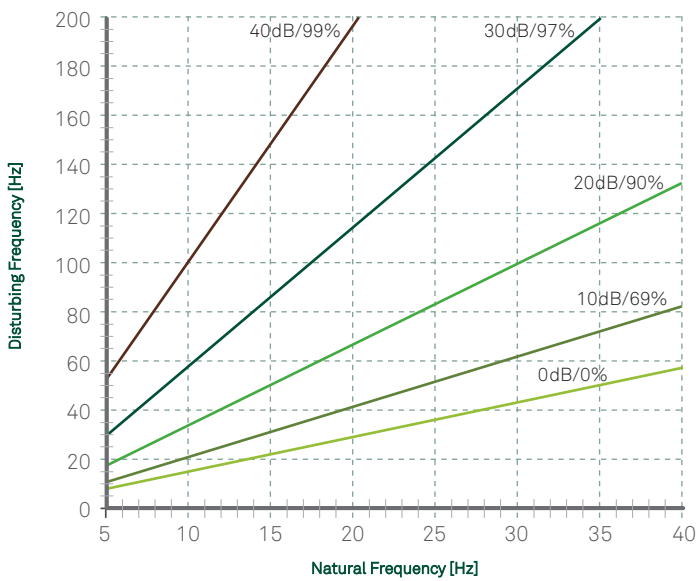
## Selection Guideline

Material selection can be made using the Static/Dynamic E-Module in the respective load range or using the Vibration Isolation Level Abacus below:

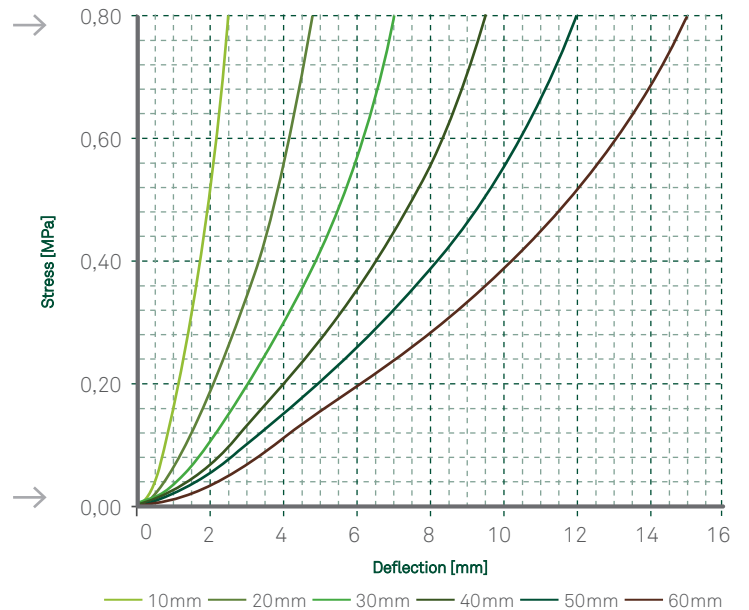
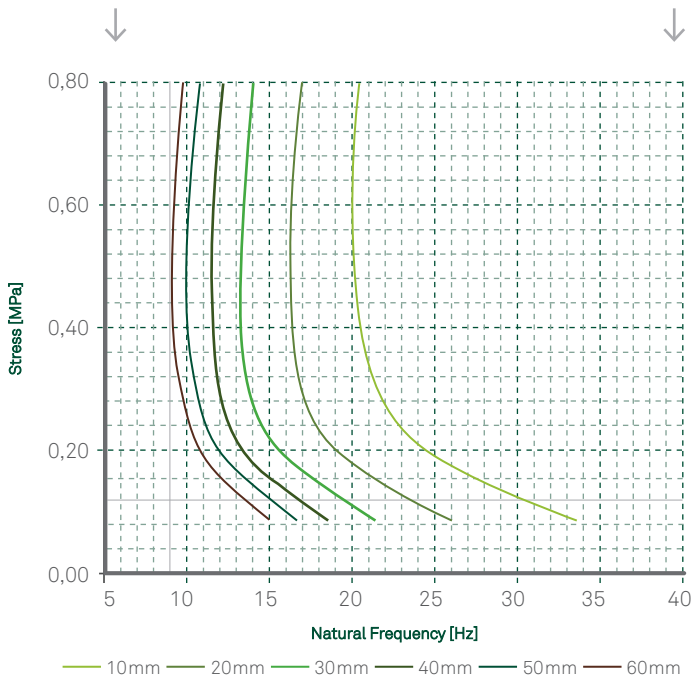
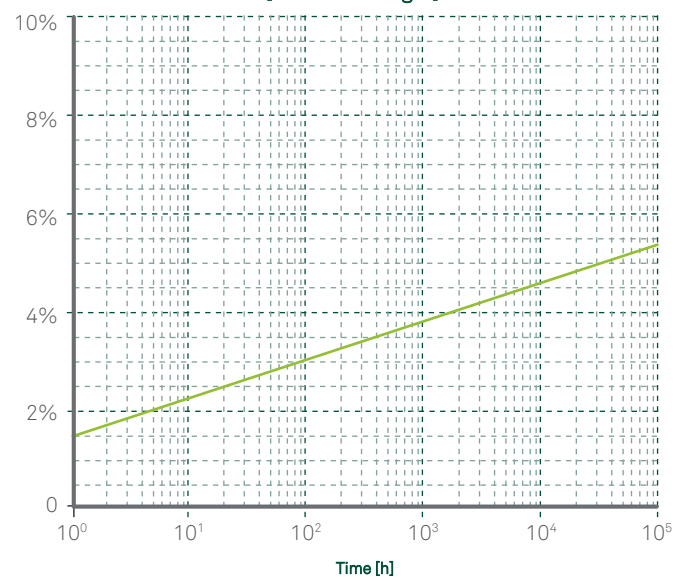
- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added to the above deflection via the Creep deflection graph calculating the additional deflection and adding.



Vibration Isolation

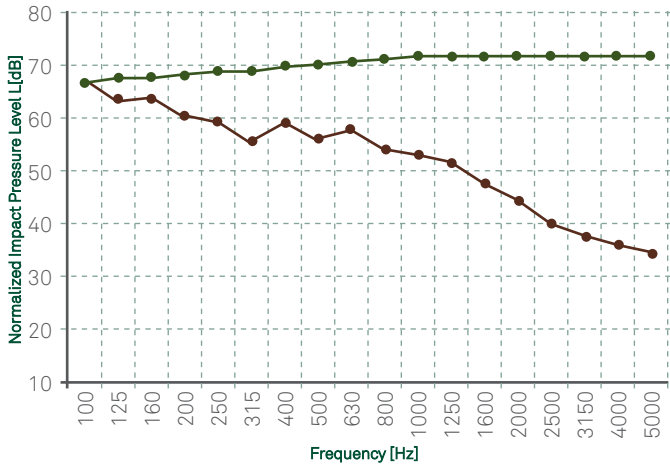


Creep Deflection @ 0.4 MPa [% of start height]



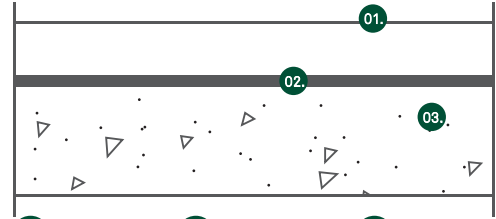
Note: 20mm, 30mm, 40mm, 50mm and 60mm thickness achieved through stacking 10mm (flat) thickness layers.  
 Note: Samples tested - 300x300 [mm]

**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) - 5mm

**TEST APPARATUS [ $\Delta L_w$  & IIC]**

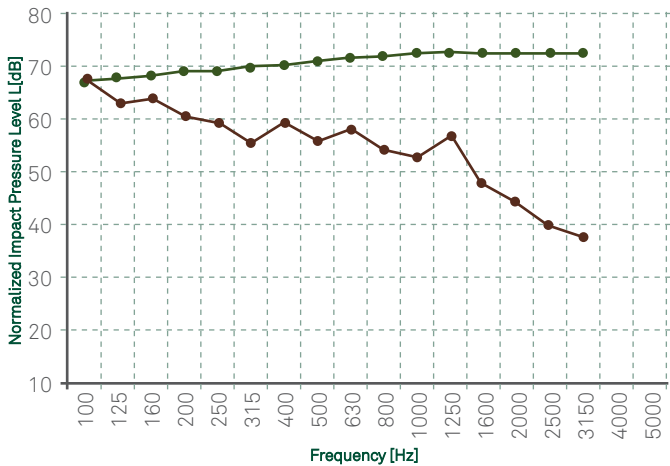


- 01. Concrete floating screed with 70mm thickness
- 02. Agglomerated recycled rubber resilient layer - VC 7200
- 03. Reinforced concrete slab of thickness 140mm

$L_{n,r}$  - 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;  
 $\Delta L_w$  - Impact sound pressure level reduction index of the covering under test, on a normalized floor;

Ref. Test Report	Thickness	$L_{n,r,w}$ ( $C_{l,r}$ )	$\Delta L_w$ ( $C_{l,\Delta}$ )
ACU102/12	5 mm	57 (0) dB	21 (-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) - 5mm

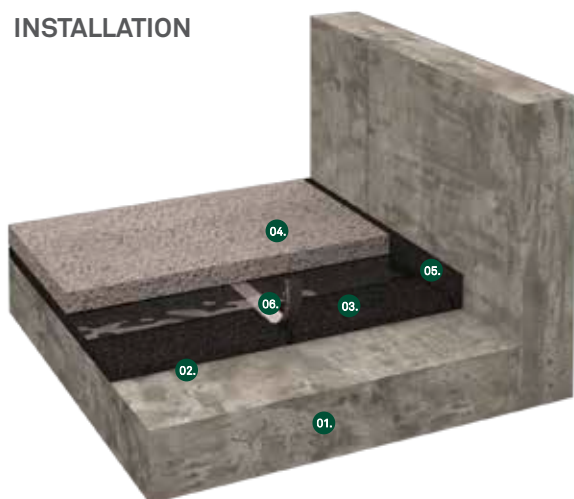
$L_{n,r}$  - Normalized impact sound pressure level of the reference floor with the floor covering under test;  
 $L_{n,r,0}$  - Normalized impact sound pressure level of the Lab reference floor;

Thickness	IIC <sub>c</sub>
5 mm	52 dB





## INSTALLATION



01.

Reinforced concrete slab

02.

Vapor barrier

03.

Agglomerated recycled rubber resilient layer -VC 7200

04.

Concrete floating screed

05.

Perimeter insulation barrier

06.

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.

### Installation Instruction for Acousticork VC 7200

Unpack the Acousticork VC7200 at least 24h before the installation and store it in the room where the installation will take place. Cut and trim the Acousticork VC7200 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.

Place the Acousticork VC7200 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 VC7200 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 VC7200 area without gaps. Never mechanically fasten the Acousticork VC7200 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.



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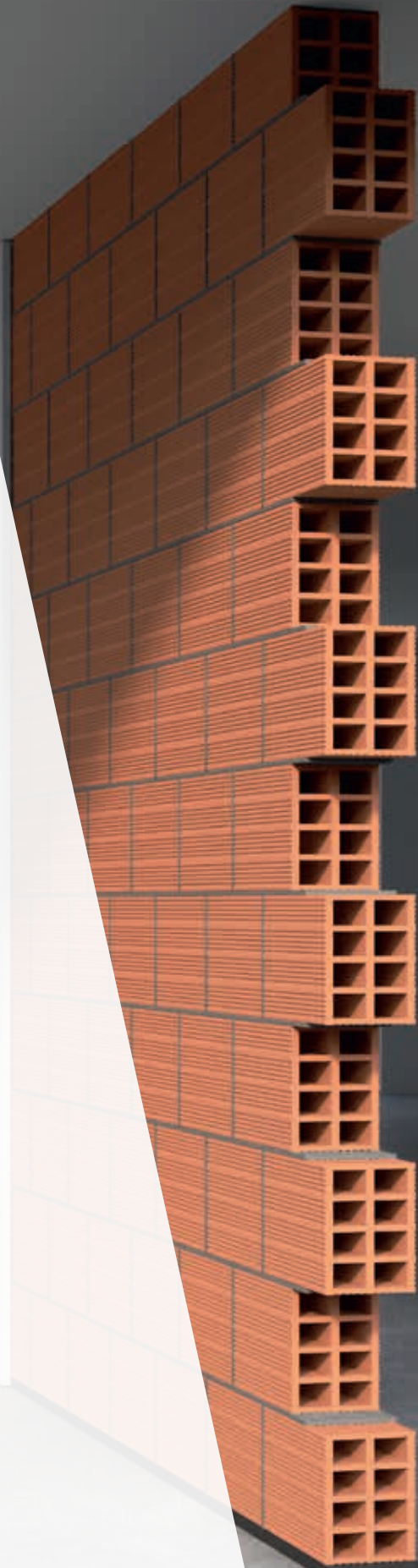
[www.amorimcorkcomposites.com](http://www.amorimcorkcomposites.com)

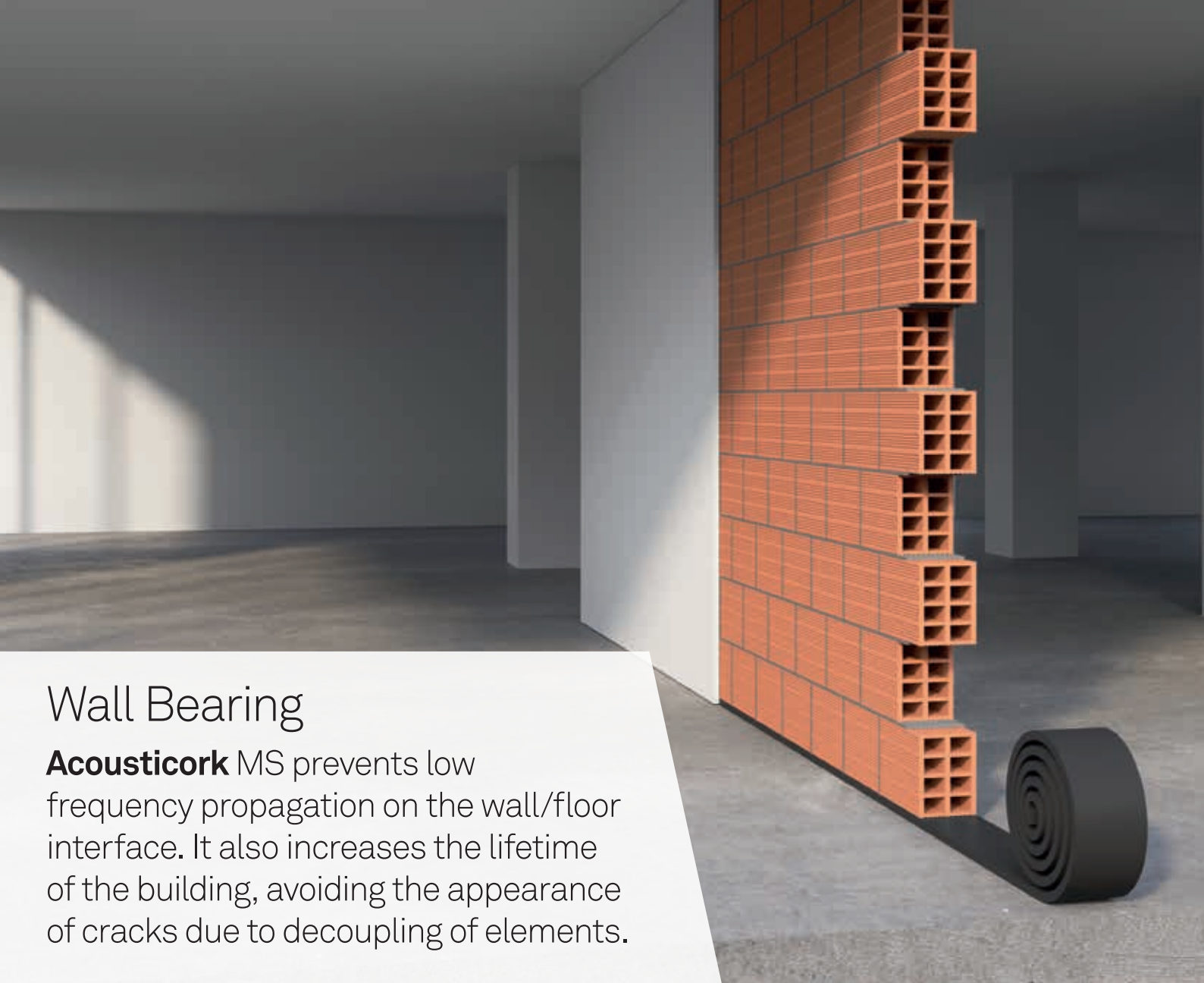
# ACOUSTICORK

SUSTAINABLE  
ACOUSTIC  
INSULATION

# 04

Wall Bearing

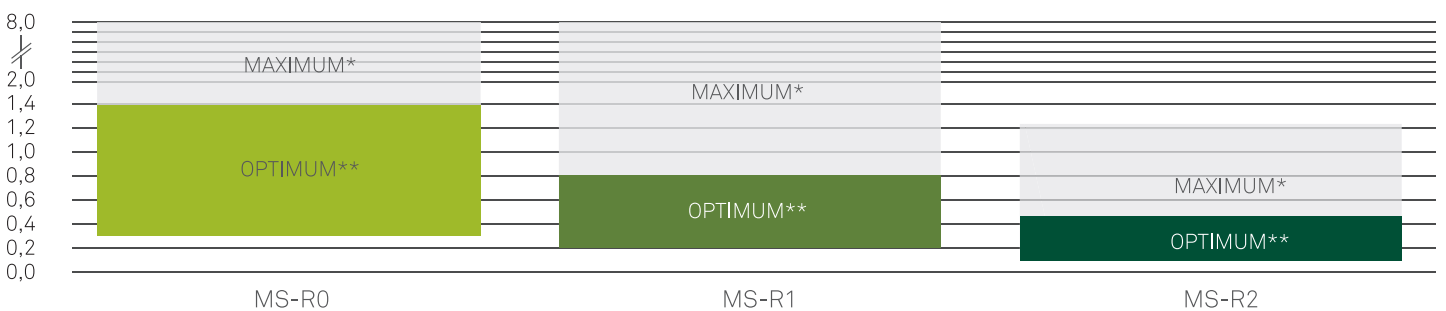




## Wall Bearing

**Acousticork** MS prevents low frequency propagation on the wall/floor interface. It also increases the lifetime of the building, avoiding the appearance of cracks due to decoupling of elements.

### LOAD RANGE (MPa)



\*at <50% Deflection - \*\* at <25% Deflection

**MS-R0**  
Cork and Recycled Rubber



**MS-R1**  
Recycled Rubber



**MS-R2**  
Cork Recycled Polyurethane



Materials available with different backings, such as double-sided tape, aluminum or polyester film.



## MS-RO

### Material Data Sheet



## CORK & RECYCLED RUBBER

**MS-RO** - a Wall Bearing material - is part of the Amorim Cork Composites range and it represents an excellent solution for acoustical and vibration issues.

MS-RO is manufactured from recycled rubber and granulate cork and it has been developed to effectively interrupt the transmission of footstep noise vertically through the masonry. If wall bearings are used consistently throughout a building, and other sound transmission vectors are eliminated, this can significantly improve the quality of living conditions. The product is suitable for acoustic insulation in loadbearing and non-load-bearing walls.

#### LOAD RANGE

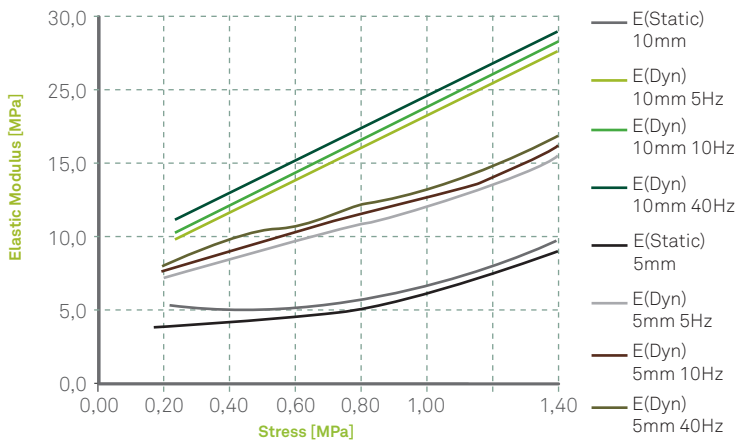
- **WORKLOAD** 0,3 - 1,4\* MPa (43,5 - 203\* psi)
- **MAXIMUM LOAD** 8 MPa (1160 psi)\*\*

#### E-MODULE

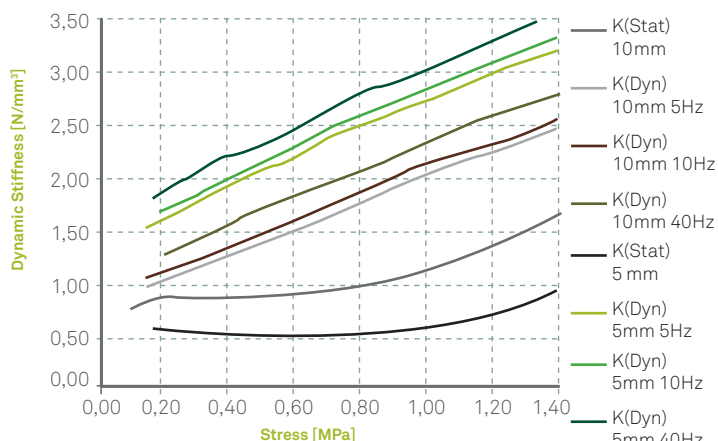
- **STATIC** <sup>(1)</sup> 3,6-9 MPa (522,14 - 1305 psi)
- **DYNAMIC** <sup>(2)</sup> 6,5-28,0 MPa (942,75 - 4061,06 psi)

(1) DIN 53513 (ADAPTED) - TANGENTIAL MODULUS  
 (2) DIN 53513 (ADAPTED) - DEPENDING ON LOAD AND FREQUENCY  
 \* AT 25% DEFLECTION  
 \*\* AT <50% DEFLECTION

#### ELASTIC MODULUS [MPa]



#### DYNAMIC STIFFNESS [N/mm³]



Compression Set (%) <sup>(1)</sup>	<15
Tensile Strength (MPa) <sup>(2)</sup>	>0,6 (>87psi)
Elongation at break (%) <sup>(2)</sup>	>15
Density (kg/m³) <sup>(3)</sup>	600 (40lb/ft³)
Shore Hardness (Shore A) <sup>(4)</sup>	60-70
Natural Frequency (Hz) for 10mm thickness	21,5*
Natural Frequency (Hz) for 5mm thickness	26,5*

(1) DIN 53572 - MEASURED 30MIN AFTER DECOMPRESSION WITH 50% DEFORMATION / 23°C AFTER 72H  
 (2) DIN 53571  
 (3) ASTM D2097  
 (4) ASTM D 2240  
 \*AT 1,4MPa STRESS

#### ADVANTAGES

- High resistance to compression
- Low dynamic stiffness
- Resistance to contact with liquids
- Sustainable and recyclable

RoHS Compliant  
 AMORIM CORK COMPOSITES





## STANDARD DIMENSIONS

### Standard Dimensions\*

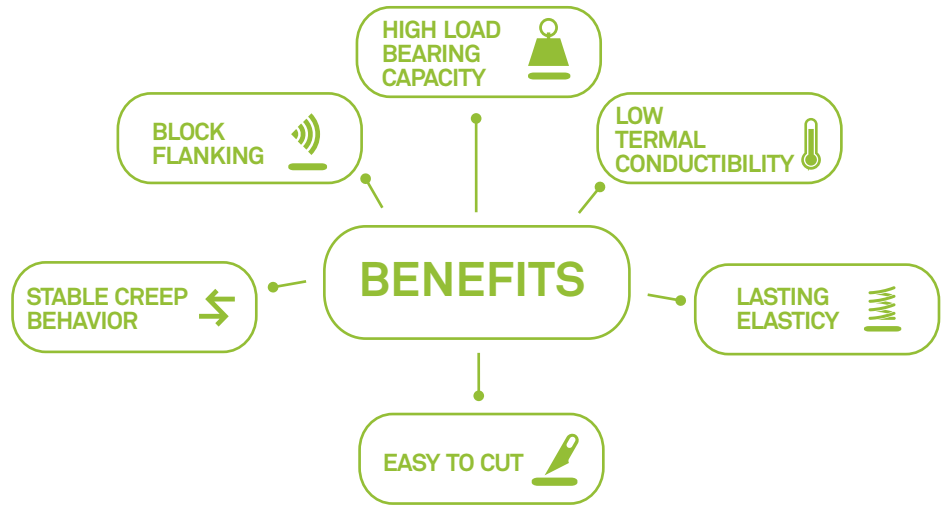
10m x 5cm x 10mm or 5mm

10m x 10cm x 10mm or 5mm

10m x 15cm x 10mm or 5mm

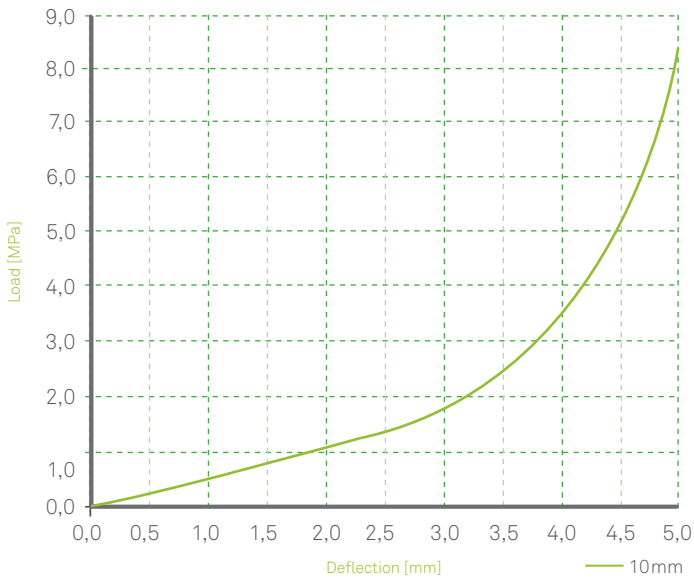
10m x 20cm x 10mm or 5mm

\*Other dimensions available.

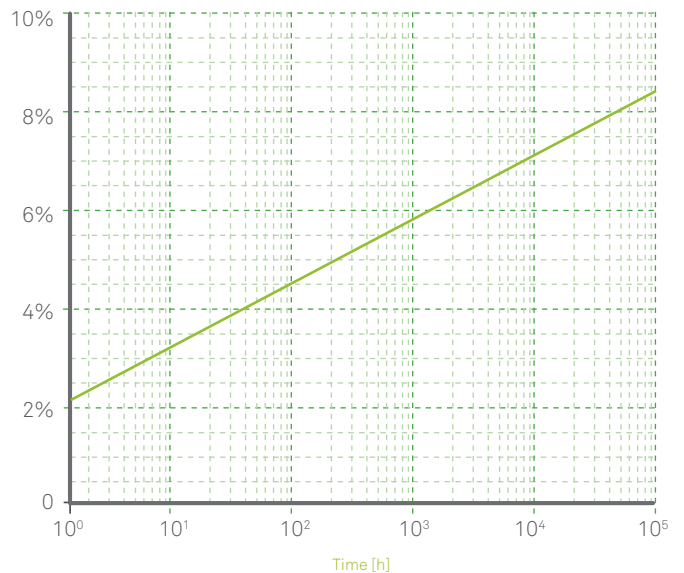


## PHYSICAL AND MECHANICAL PROPERTIES

### LOAD DEFLECTION



### CREEP DEFLECTION @ 0,7MPa (% OF START HEIGHT)



## INSTALLATION

Before the MS-R0 wall bearing is installed, check the floor for surface irregularities. If it is uneven (with projections, surface roughness or similar), apply a smooth mortar layer;

After the surface layer has been allowed to dry, lay the wall bearing. Make sure that it projects by approx. 15mm on the side on which the wall is to be plastered;

Sections of wall bearing are butt-jointed together, and the joint secured with adhesive tape for concrete.



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## MS-R1

### Material Data Sheet

## RECYCLED RUBBER



**MS-R1** - a Wall Bearing material - is part of the Amorim Cork Composites range and it represents an excellent solution for acoustical and vibration issues.

MS-R1 is manufactured from recycled rubber granulate and it has been developed to effectively interrupt the transmission of footstep noise vertically through the masonry. If wall bearings are used consistently throughout a building, and other sound transmission vectors are eliminated, this can significantly improve the quality of living conditions. The product is suitable for acoustic insulation in loadbearing and non-load-bearing walls.

#### LOAD RANGE

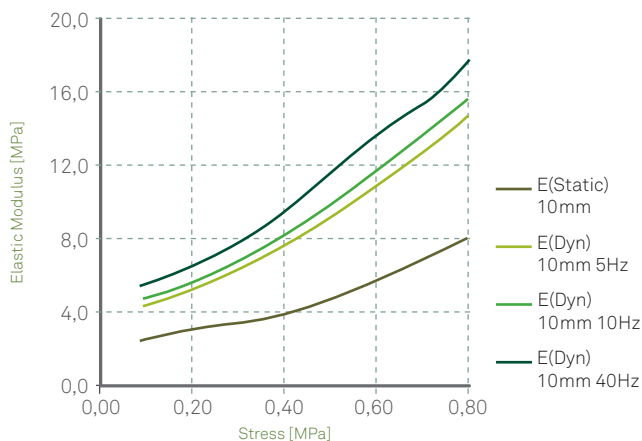
- **WORKLOAD** 0,2 - 0,8\* MPa (29 - 116\* psi)
- **MAXIMUM LOAD** 8 MPa (1160 psi)\*\*

#### E-MODULE

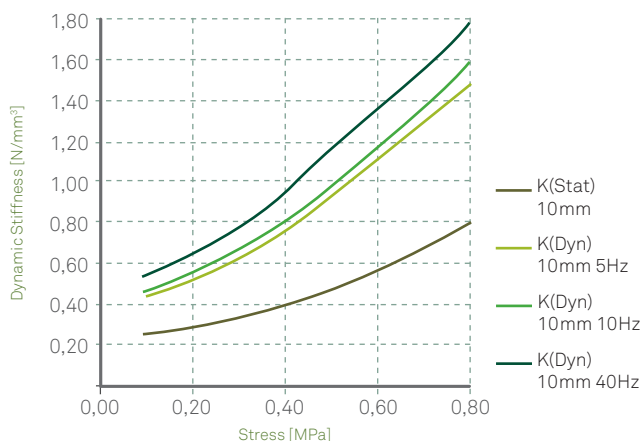
- **STATIC<sup>(1)</sup>** 3,00-8,00 MPa (435-1160 psi)
- **DYNAMIC<sup>(2)</sup>** 5,50-18,0 MPa (798 - 2610 psi)

(1) DIN 53513 (ADAPTED) - TANGENTIAL MODULUS  
 (2) DIN 53513 (ADAPTED) - DEPENDING ON LOAD AND FREQUENCY  
 \* AT 25% DEFLECTION  
 \*\* AT <50% DEFLECTION

#### ELASTIC MODULUS [MPa]



#### DYNAMIC STIFFNESS [N/mm<sup>3</sup>]



Compression Set (%) <sup>(1)</sup>	4,3
Tensile Strength (MPa) <sup>(2)</sup>	> 0,5 (73 psi)
Elongation at break (%) <sup>(1)</sup>	> 75
Density (kg/m <sup>3</sup> ) <sup>(3)</sup>	750 (47lb/ft <sup>3</sup> )
Shore Hardness (Shore A) <sup>(4)</sup>	35-45
Flammability <sup>(5)</sup>	*B2
Natural Frequency (Hz)	20**

(1) DIN 53572 - MEASURED 30MIN AFTER DECOMPRESSION WITH 50% DEFORMATION / 23°C AFTER 72H  
 (2) DIN 53571  
 (3) ASTM D297  
 (4) ASTM D2240  
 (5) DIN 4102  
 \* B2 = NORMAL FLAMMABLE  
 \*\*AT 0,8MPa STRESS (10MM THICKNESS)

#### ADVANTAGES

- High resistance to compression
- Low dynamic stiffness
- Resistance to contact with liquids
- Sustainable and recyclable

RoHS Compliant  
 AMORIM CORK COMPOSITES





## STANDARD DIMENSIONS

### Standard Dimensions\*

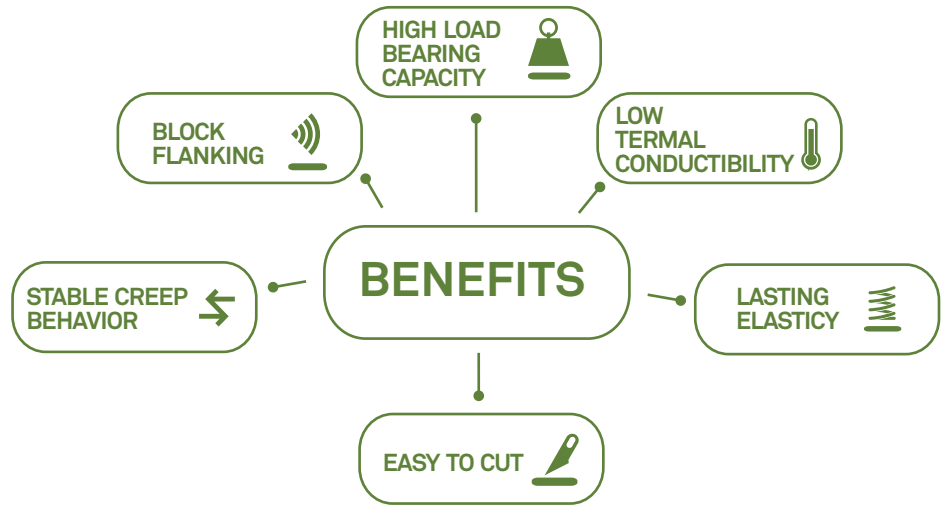
10m x 5cm x 10mm or 5mm

10m x 10cm x 10mm or 5mm

10m x 15cm x 10mm or 5mm

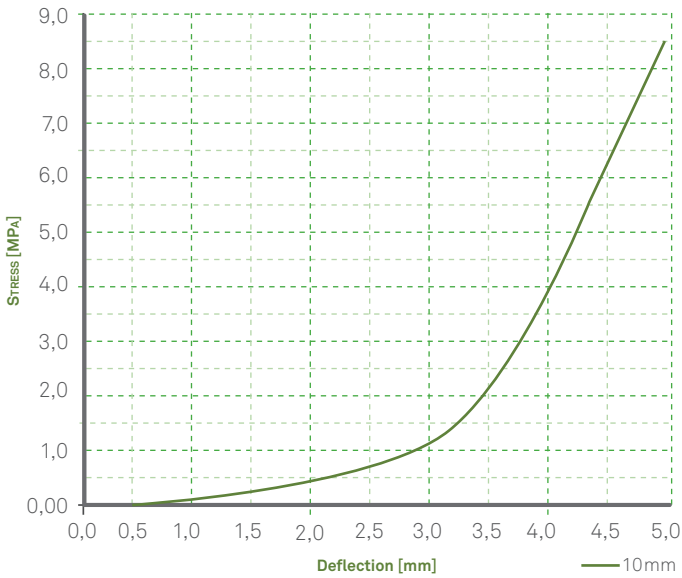
10m x 20cm x 10mm or 5mm

\* Other dimensions available.

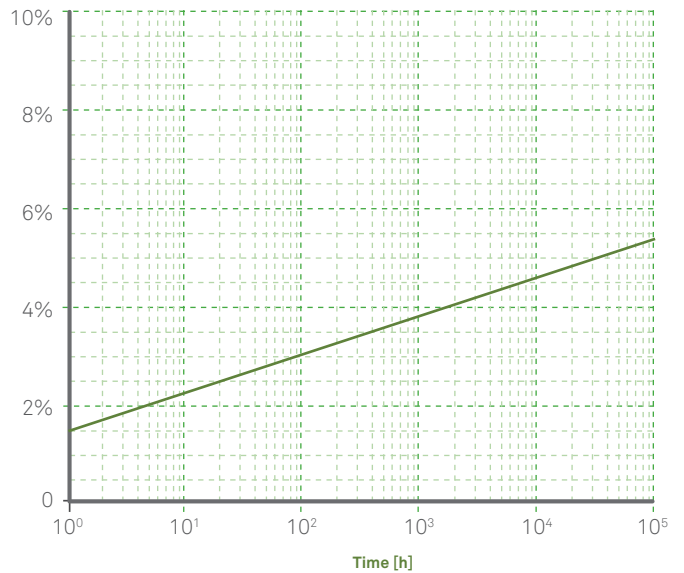


## PHYSICAL AND MECHANICAL PROPERTIES

### LOAD DEFLECTION



### CREEP DEFLECTION @ 0,4MPA (% OF START HEIGHT)



## INSTALLATION

Before the MS-R1 wall bearing is installed, check the floor for surface irregularities. If it is uneven (with projections, surface roughness or similar), apply a smooth mortar layer;

After the surface layer has been allowed to dry, lay the wall bearing. Make sure that it projects by approx. 15mm on the side on which the wall is to be plastered;

Sections of wall bearing are butt-jointed together, and the joint secured with adhesive tape for concrete.



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## MS-R2

### Material Data Sheet

## CORK & RECYCLE POLYURETHANE



**MS-R2** - a Wall Bearing material - is part of the Amorim Cork Composites range and it represents an excellent solution for acoustical and vibration issues.

MS-R2 is manufactured from cork and recycled polyurethane granulate and it has been developed to effectively interrupt the transmission of footstep noise vertically through the masonry. If wall bearings are used consistently throughout a building, and other sound transmission vectors are eliminated, this can significantly improve the quality of living conditions. The product is suitable for acoustic insulation in non-load-bearing walls.

#### LOAD RANGE

- **WORKLOAD** 0,1 - 0,43\* MPa (14,5 - 62,43\* psi)
- **MAXIMUM LOAD** 1,25 MPa (181,3 psi)\*\*

#### E-MODULE

- **STATIC**<sup>(1)</sup> 1,38-2,30MPa (200,15 - 333,59 psi)
- **DYNAMIC**<sup>(2)</sup> 3,8-13,0 MPa (551,14 - 1885,49 psi)

— (1) DIN 53513 (ADAPTED) - TANGENTIAL MODULUS  
 (2) DIN 53513 (ADAPTED) - DEPENDING ON LOAD AND FREQUENCY  
 \* AT 25% DEFLECTION  
 \*\* AT <50% DEFLECTION

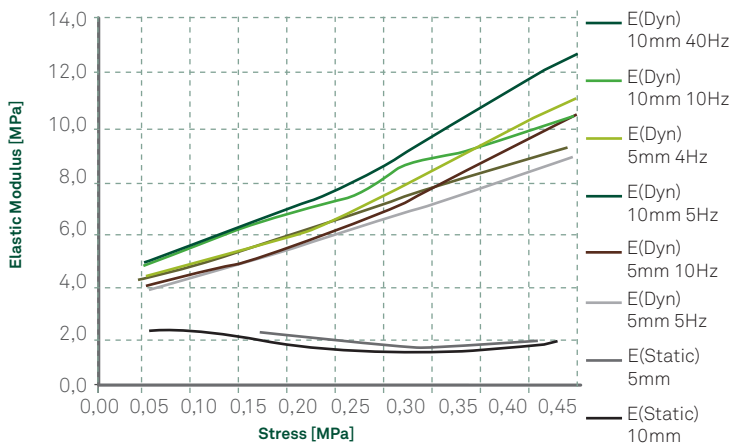
Compression Set (%) <sup>(1)</sup>	50%
Tensile Strength (MPa) <sup>(2)</sup>	>0,1 (>14,5psi)
Elongation at break (%) <sup>(2)</sup>	46%
Density (kg/m <sup>3</sup> ) <sup>(3)</sup>	250 (15,6lb/ft <sup>3</sup> )
Shore Hardness (Shore A) <sup>(4)</sup>	30-40
Natural Frequency (Hz) for 10mm thickness	25**
Natural Frequency (Hz) for 5mm thickness	31**

(1) DIN 53572 - MEASURED 30MIN AFTER DECOMPRESSION WITH 50% DEFORMATION / 23°C AFTER 70H  
 (2) DIN 53571  
 (3) ASTM D297  
 (4) ASTM D 2240  
 \*\*AT 0,43MPa STRESS

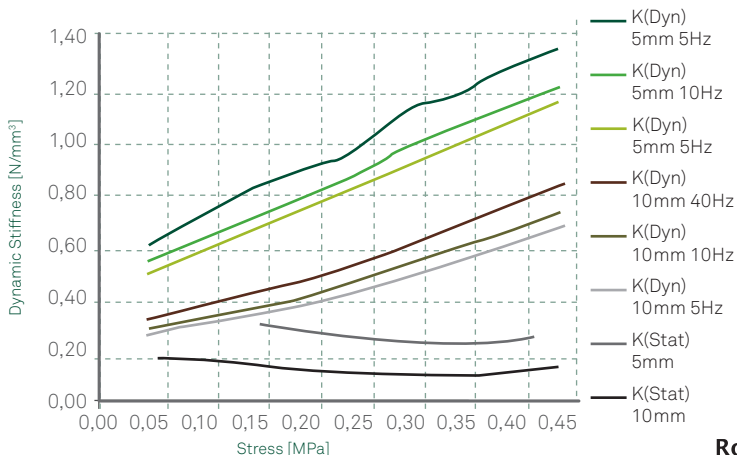
#### ADVANTAGES

- High resistance to compression
- Low dynamic stiffness
- Resistance to contact with liquids
- Sustainable and recyclable

#### ELASTIC MODULUS [MPa]



#### DYNAMIC STIFFNESS [N/mm<sup>3</sup>]



**RoHS Compliant**  
 AMORIM CORK COMPOSITES





## STANDARD DIMENSIONS

### Standard Dimensions\*

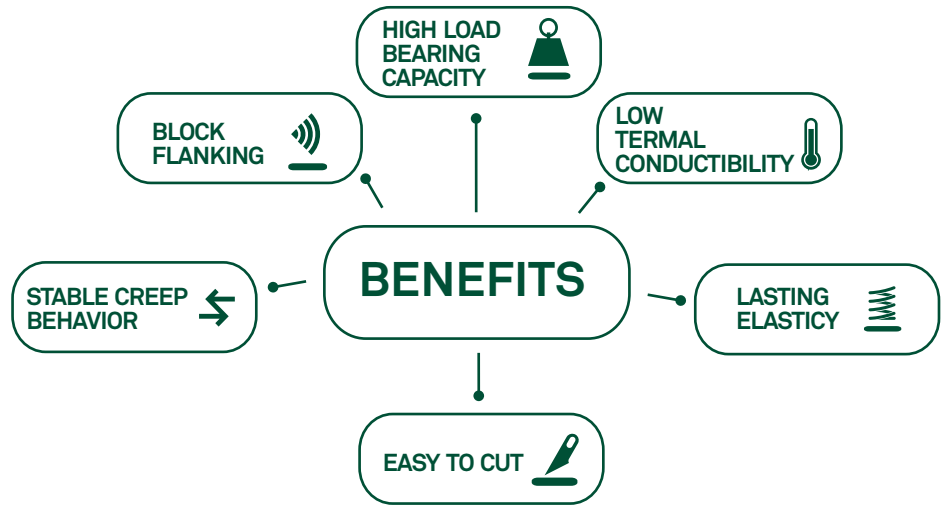
10m x 5cm x 10mm or 5mm

10m x 10cm x 10mm or 5mm

10m x 15cm x 10mm or 5mm

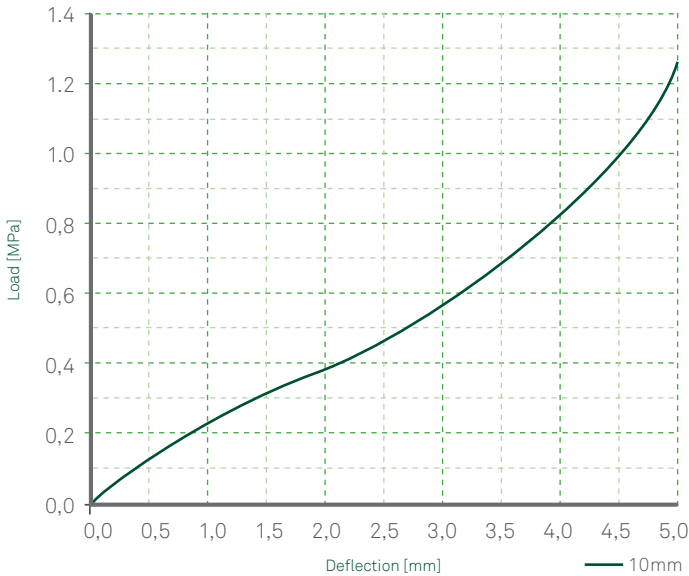
10m x 20cm x 10mm or 5mm

\* Other dimensions available.

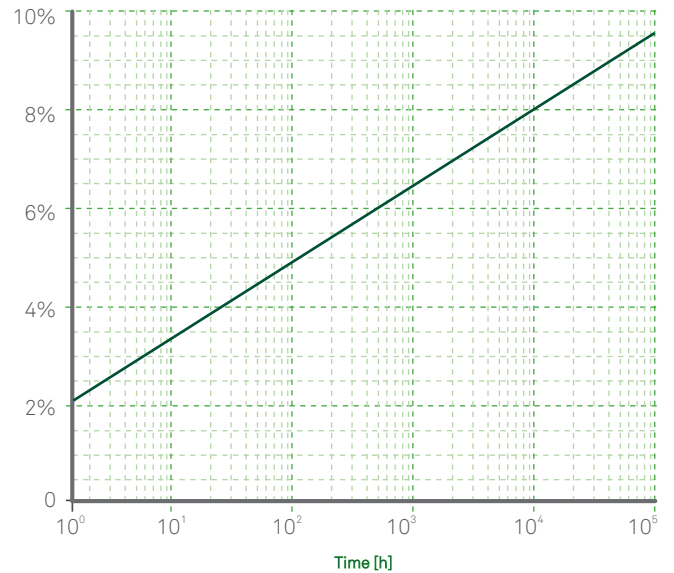


## PHYSICAL AND MECHANICAL PROPERTIES

### LOAD DEFLECTION



### CREEP DEFLECTION @ 0,215MPa (% OF START HEIGHT)

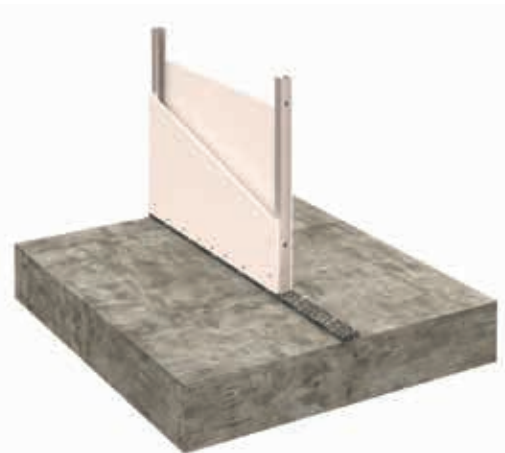


## INSTALLATION

Before the MS-R2 wall bearing is installed, check the floor for surface irregularities. If it is uneven (with projections, surface roughness or similar), apply a smooth mortar layer;

After the surface layer has been allowed to dry, lay the wall bearing. Make sure that it projects by approx. 15mm on the side on which the wall is to be plastered;

Sections of wall bearing are butt-jointed together, and the joint secured with adhesive tape for concrete.



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