NEW

ACOUSTICORK

REINVENTING SUSTAINABLE GREEN AND ACOUSTIC INSULATION

Reinventing how cork engages the world

AMORIM
CORK COMPOSITES

cork cell microscopic view

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 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.

- **Excellent Acoustic Insulation**
- **Excellent Thermal Insulation**
- **Good resilience, excellent compressibility and recovery**
- **Extremely light and buoyant**
- **100% natural, reusable and recyclable**

ACOUSTICORK

REINVENTING SUSTAINABLE, GREEN AND ACOUSTIC INSULATION

ACOUSTICORK natural base materials for demanding applications

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

The combination of cork granules with diverse polymers brings added characteristics to different compounds for 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 poison ratio improves the behaviour of such materials in dynamic loading applications.

EFFICIENCY, RESILIENCE AND DURABILITY

UNDERLAY

UNDERSCREED

VIBRATION CONTROL

WALL BEARING

ITECONS
ATTESTS ACOUSTICORK'S PERFORMANCE

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, municipalities 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.

ACOUSTICORK solutions are tested at ITECONS subjected to a highly qualified environment

ITeCons

www.itecons.uc.pt

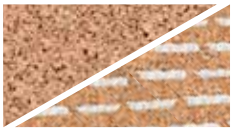
ACOUSTICORK

REINVENTING SUSTAINABLE GREEN AND ACOUSTIC INSULATION

01 UNDERLAY

UNDERLAY

ACOUSTICORK has solutions
for different types of final flooring.

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	3mm	3mm	3mm perforated	3mm	2mm	
	ΔLW	20dB	26dB	18dB	16dB	14dB	
	IIC	49dB	59dB	51dB	50dB	49dB	
Ceramic (Or Natural Stone)	Thickness	-	5mm CE		3mm	2mm	
	ΔLW	-	16dB		16dB	12dB	
	IIC	-	50dB		51dB	46dB	
LVT	Thickness	-	-		3mm	1,6mm	2mm
	ΔLW	-	-		19dB	17dB	-
	IIC	-	-		51dB	52dB	54dB

ACOUSTICORK

T22

MATERIAL DATA SHEET

MATERIAL DESCRIPTION & PROPERTIES

GLUED DOWN WOOD FLOORS

ΔL_w = **20**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(1)

(1) ISO 8301

PHYSICAL AND MECHANICAL PROPERTIES

Specific Weight (1)	Tensile Strength (2)	Compressibility at 0,7MPa (3)	Recovery (3)
650 - 750 Kg/m³	> 350 KPa	20%	> 80%

(1) ASTM F1315 • (2) ASTM F152 • (3) ASTM F36

ACOUSTICAL RESULTS

Flooring	Thickness (mm)	ΔL_w (dB) (1)	IIC (dB) (2)
Glued Down Wood	3	20	49

(1) ISO 10140-1, ISO 10140-3 & ISO 10140-4 • (2) ASTM E492-09 & ASTM E989-06

STANDARD DIMENSIONS

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

Others sizes available upon request

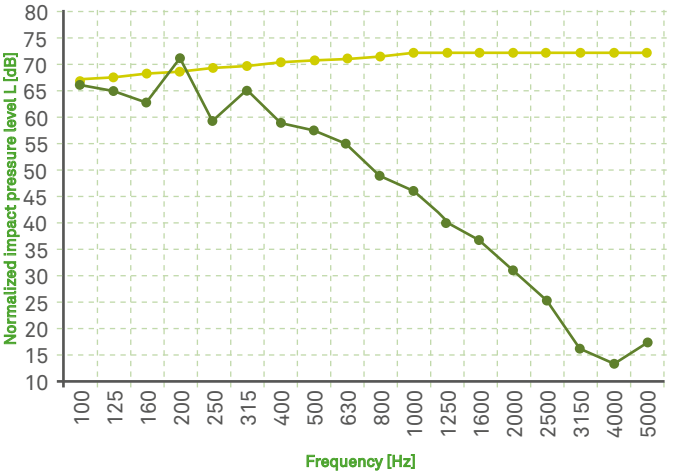
EMPRESA CERTIFICADA apcer ISO 9001 ISO 14001 OHSAS 18001

FSC www.fsc.org FSC® C022338 The mark of responsible forestry

PEFC

ACOUSTICAL RESULTS

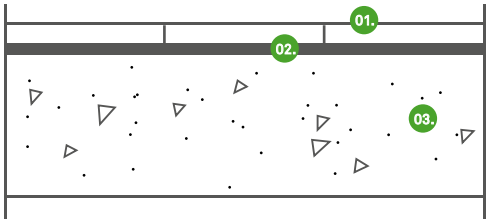
Test procedure according to standards ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010 and ISO 717-2:2013



$L_{n,r,0}$ (dB)

$L_{n,r}$ (dB) - 3mm

TEST APPARATUS (ΔL_W & IIC)



01. Floor covering composed by glued down wood

02. Agglomerated recycled rubber resilient layer - T22

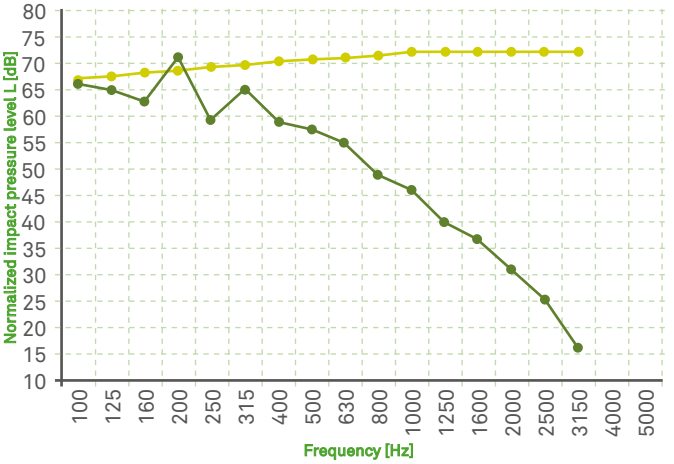
03. Reinforced concrete slab of thickness 140mm

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

Ref. Test Report	Thickness	Flooring	$L_{n,r,w}$ ($C_{I,r}$)	ΔL_w ($C_{I,\Delta}$)
ACU 128/10	3 mm	Glued Down Wood	58 (1) dB	20 (-12) dB

ACOUSTICAL RESULTS

Test procedure according to standards ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010. Normalized impact sound pressure level and IIC raiting determinated according to standards ASTM E492-09 and ASTM E989-06.



L_{ref} (dB)

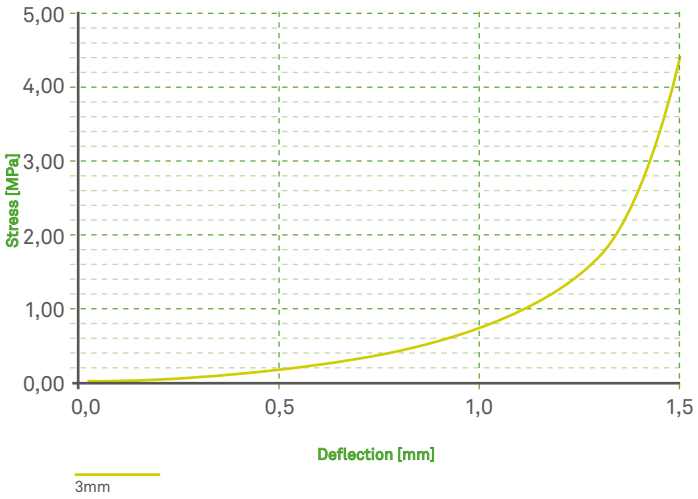
$L_{ref.c}$ (dB) - 3mm

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;

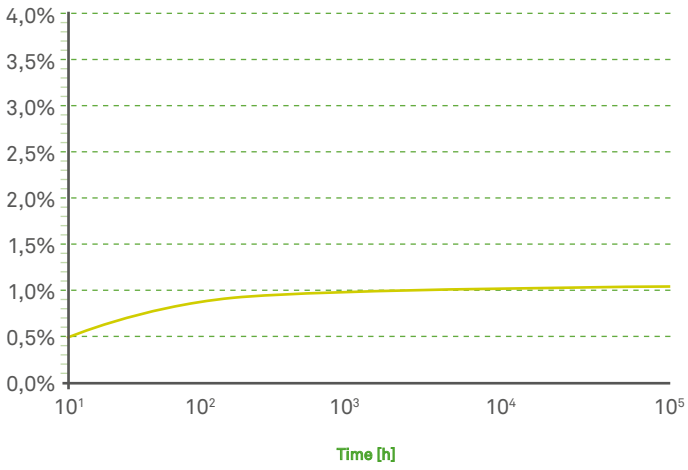
Thickness	Flooring	IIC_c
3 mm	Glued Down Wood	49dB

PHYSICAL AND MECHANICAL PROPERTIES

LOAD DEFLECTION



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



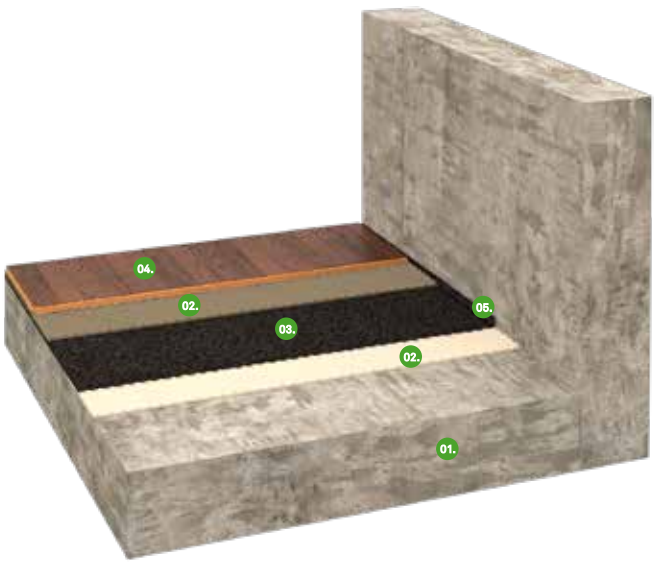
DYNAMIC STIFFNESS

Test procedure according to standards ISO 9052-1, ISO 7626- 5

Thickness (mm)	Dynamic Stiffness (MN/m³)
3	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

GLUED DOWN WOOD FLOORS ΔL_w = 20dB

T22
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 > 10ºC / Room moisture content < 75%.

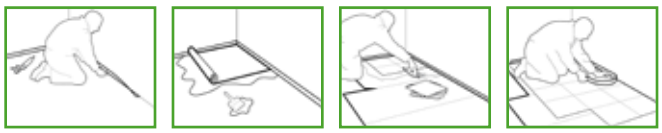
Subfloor
All subfloor work should be structurally sound, clear and level. The moisture content of the subfloor should not be more than 2.5% (CM) by weight measured on concrete subfloors.

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 traped 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 severaly diminish its acoustical value.

For detailed installation instructions, please contact us.

AMORIM CORK COMPOSITES

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.

ACOUSTICORK

T61
MATERIAL DATA SHEET

MATERIAL DESCRIPTION & PROPERTIES

NON GLUED LAMINATE FLOORS		ΔL_w = 20dB
GLUED DOWN WOOD FLOORS		ΔL_w = 26dB
GLUED DOWN WOOD FLOORS PERFORATED		ΔL_w = 18dB
CERAMIC OR NATURAL STONE FLOORS		ΔL_w = 16dB CE

100% Natural and Sustainable Product
Impact Noise Reduction and Thermal Insulation Properties
High Durability and Long Term Resilience
High Performance with Reduced Thickness

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

THERMAL PROPERTIES
Thermal Conductivity: 0,04 W/mK (1)

(1) ISO 8301

PHYSICAL AND MECHANICAL PROPERTIES

Specific Weight (1)	Tensile Strength (1)	Compression at 0,7MPa (1)	Recovery after 0,7MPa (1)
150 - 200 Kg/m³	> 200 KPa	30%	> 70%

(1) ISO 7322

ACOUSTICAL RESULTS

Flooring	Thickness (mm)	ΔL_w (dB) (1)	IIC (dB) (2)
Non Glued Laminate	2	20	54
Glued Down Wood	3	26	59
	3 perforated	18	51
Ceramic (or Natural Stone)	5 CE	16	50

(1) ISO 10140-1, ISO 10140-3 & ISO 10140-4 • (2) ASTM E492-09 & ASTM E989-06

STANDARD DIMENSIONS

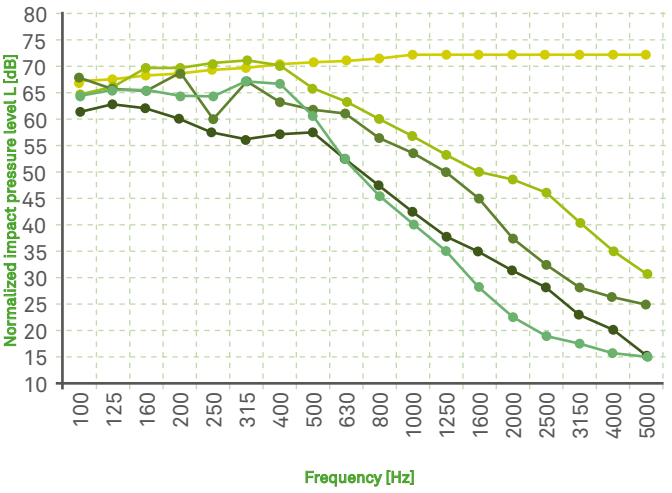
Thickness (mm)	2	3	3 perforated	5
Width (m) x Length (m)	1 x 10	1 x 10	0,5 x 10	1 x 10

Others sizes available upon request

EMPRESA CERTIFICADA apcer ISO 9001 ISO 14001 OHSAS 18001
FSC www.fsc.org FSC® C022338 The mark of responsible forestry
PEFC

ACOUSTICAL RESULTS

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

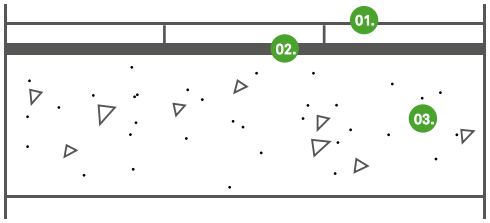


$L_{n,r}$ - Normalized impact sound pressure level of the reference floor with the floor covering under test;
$L_{n,r,0}$ - Normalized impact sound pressure level of the Lab reference floor;
ΔL_w - Impact sound pressure level reduction index of the covering under test, on a normalized floor;

$L_{n,r,0}$ (dB)
$L_{n,r}$ (dB) - 3mm - GDW*
$L_{n,r}$ (dB) - 5mm - Ceramic
$L_{n,r}$ (dB) - 2mm - Laminate
$L_{n,r}$ (dB) - 3mm perforated- GDW*

*Glued Down Wood

TEST APPARATUS (ΔL_W & IIC)



01. Floor covering composed by glued down wood, non glued laminate floor or ceramic or natural stone tiles

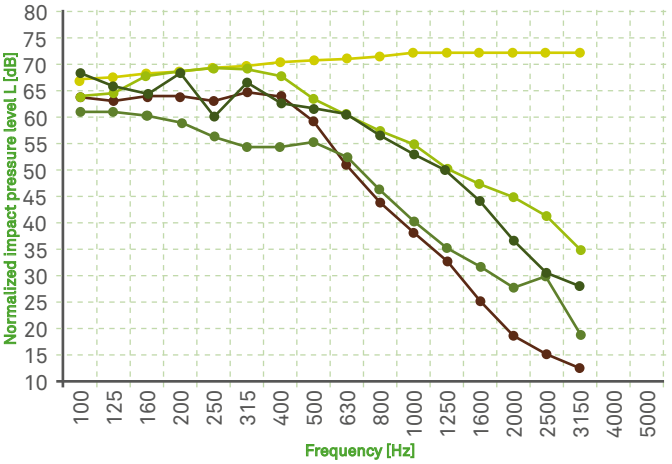
02. Agglomerated cork resilient layer - T61

03. Reinforced concrete slab of thickness 140mm

Ref. Test Report	Thickness	Flooring	$L_{n,r,w}$ ($C_{I,r}$)	ΔL_w ($C_{I,\Delta}$)
SRL C/06/5L/3676/1a	2 mm	Non Glued Laminate	58 (0) dB	20 (-11) dB
SRL C/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
SRL C/06/5L/3676/1a	5 mm	Ceramic (or Natural Stone)	62 (0) dB	16 (-11) dB

ACOUSTICAL RESULTS

Test procedure according to standards ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010. Normalized impact sound pressure level and IIC raiting determinated according to standards ASTM E492-09 and ASTM E989-06.



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;

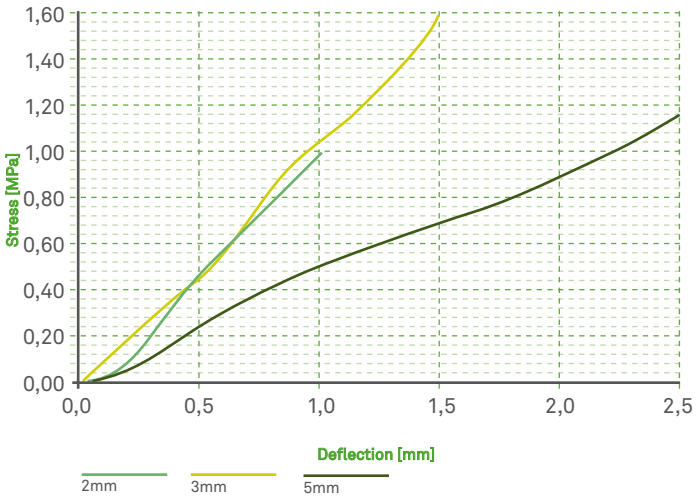
L_{ref} (dB)
$L_{ref,c}$ (dB) - 3mm - GDW*
$L_{ref,c}$ (dB) - 5mm - Ceramic
$L_{ref,c}$ (dB) - 2mm - Laminate
$L_{ref,c}$ (dB) - 3mm perforated - GDW*

*Glued Down Wood

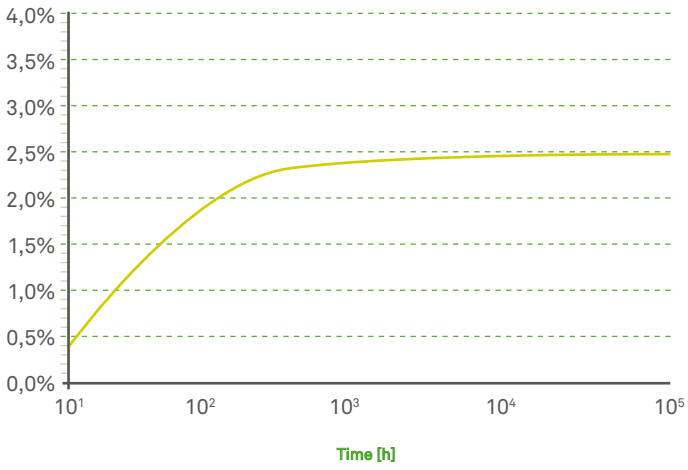
Thickness	Flooring	IIC_c
2 mm	Laminate	54 dB
3 mm	Glued Down Wood	59 dB
3 mm perforated	Glued Down Wood	51 dB
5 mm	Ceramic (or Natural Stone)	50 dB

PHYSICAL AND MECHANICAL PROPERTIES

LOAD DEFLECTION



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



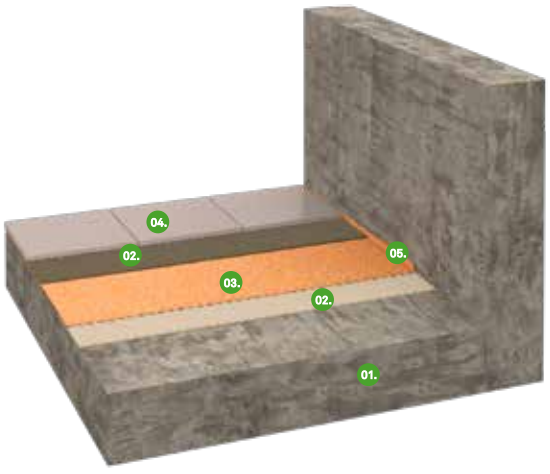
DYNAMIC STIFFNESS

Test procedure according to standards ISO 9052-1, ISO 7626- 5

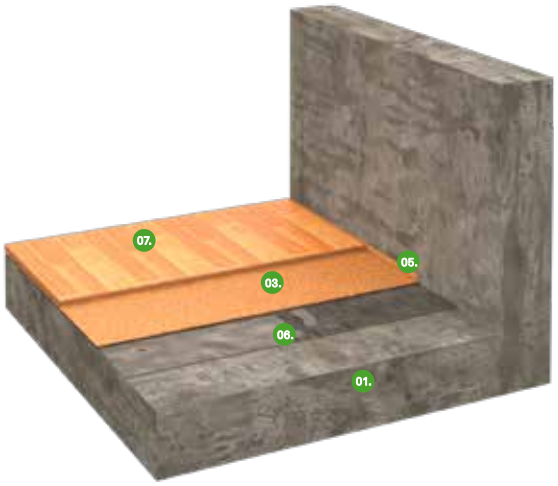
Thickness (mm)	Dynamic Stiffness (MN/m³)
2	98
3	96
5	93

INSTALLATION

GLUED FLOORS



NON 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

06. Vapor barrier

07. Floor covering composed by non glued laminate floor

NON GLUED LAMINATE FLOORS		ΔL_w = 20dB
GLUED DOWN WOOD FLOORS		ΔL_w = 26dB
GLUED DOWN WOOD FLOORS PERFORATED		ΔL_w = 18dB
CERAMIC OR NATURAL STONE FLOORS		ΔL_w = 16dB CE

T61
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 > 10ºC / Room moisture content < 75%.

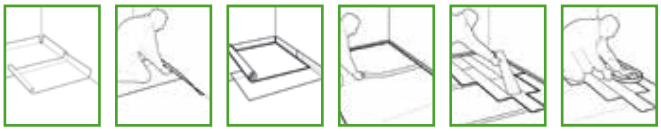
Subfloor
All subfloor work should be structurally sound, clear and level. The moisture content of the subfloor should not be more than 2.5% (CM) by weight measured on concrete subfloors.

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.

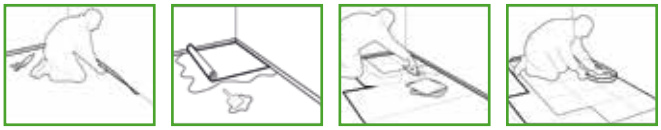
Installation Instruction for Acousticork T61
Unpack the Acousticork T61 at least 24h before the installation and store it in the room where the installation will take place. Cut the T61 to desired length and install directly over the entire floor pulled 30mm up the walls with crown of the rolled materials up (Acousticork label side down), removing all traped air. After completion, the T61 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 T61 to the flooring floor as this will severaly diminish its acoustical value.

For detailed installation instructions, please contact us.

AMORIM CORK COMPOSITES

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.

ACOUSTICORK

T66
MATERIAL DATA SHEET

MATERIAL DESCRIPTION & PROPERTIES

NON GLUED LAMINATE FLOORS		ΔL_w = 19dB
GLUED DOWN WOOD FLOORS		ΔL_w = 16dB
CERAMIC OR NATURAL STONE FLOORS		ΔL_w = 16dB
LVT		ΔL_w = 19dB

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 (1)

(1) ISO 8301

PHYSICAL AND MECHANICAL PROPERTIES

Specific Weight (1)	Tensile Strength (1)	Compression (1)	Recovery (1)
600 - 700 Kg/m³	> 800 KPa	15%	> 75%

(1) ISO 7322

ACOUSTICAL RESULTS

Flooring	Thickness (mm)	ΔL_w (dB) (1)	IIC (dB) (2)
Non Glued Laminate	3	19	47
Glued Down Wood		16	50
Ceramic (or Natural Stone)		16	51
LVT		19	51

(1) ISO 10140-1, ISO 10140-3 & ISO 10140-4 • (2) 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 (1)

(1) EN425-2002

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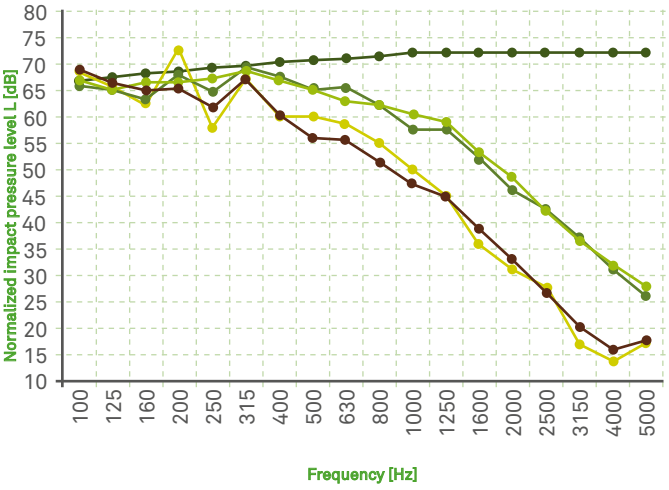
PEFC

ACOUSTICAL RESULTS

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

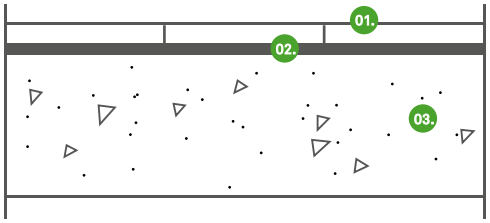


$L_{n,r}$ - Normalized impact sound pressure level of the reference floor with the floor covering under test;
$L_{n,r,0}$ - Normalized impact sound pressure level of the Lab reference floor;
ΔL_w - Impact sound pressure level reduction index of the covering under test, on a normalized floor;

$L_{n,r,0}$(dB)
$L_{n,r}$ (dB) - 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 (ΔL_W & IIC)



01. Floor covering composed by glued down wood, non glued laminate floor or ceramic or natural stone tiles

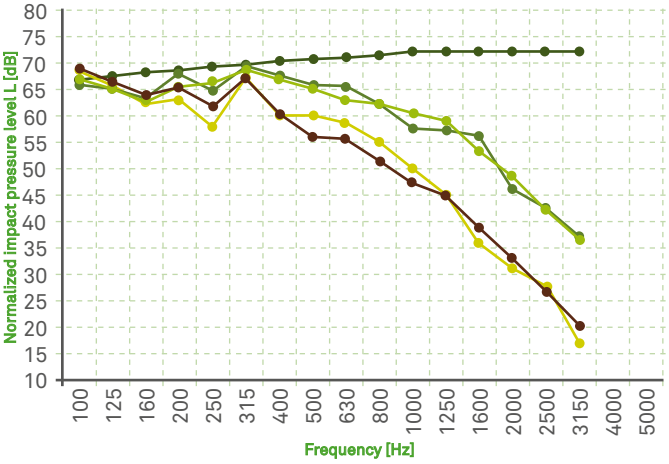
02. Agglomerated cork and recycled rubber resilient layer - T66

03. Reinforced concrete slab of thickness 140mm

Ref. Test Report	Thickness	Flooring	$L_{n,r,w}$ ($C_{I,r}$)	ΔL_w ($C_{I,\Delta}$)
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 standards ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010. Normalized impact sound pressure level and IIC raiting determinated according to standards ASTM E492-09 and ASTM E989-06.



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;

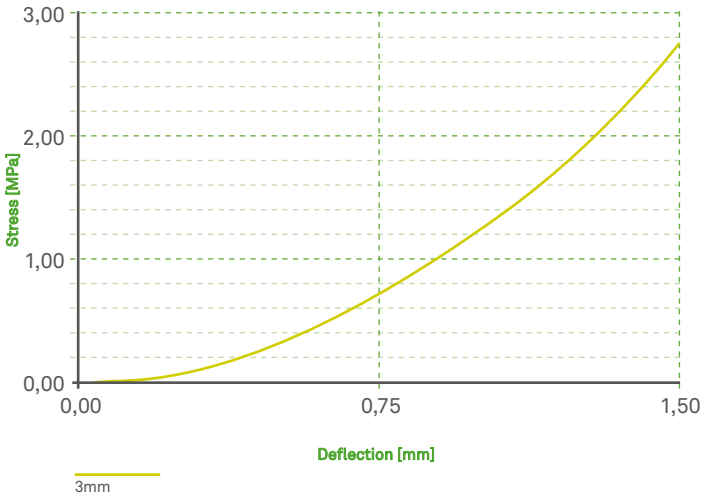
$L_{n,r,0}$(dB)
$L_{n,r}$ (dB) - 3mm GDW*
$L_{n,r}$ (dB) - 3mm LVT
$L_{n,r}$ (dB) - 3mm Laminate
$L_{n,r}$ (dB) - 3mm Ceramic

*Glued Down Wood

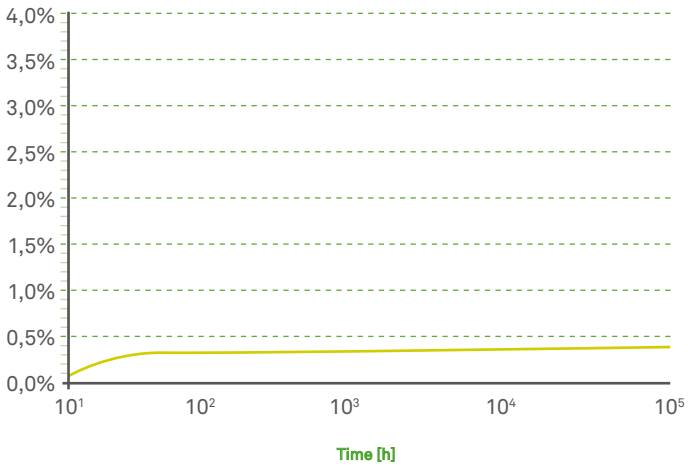
Thickness	Flooring	IIC_c
3 mm	Non Glued Laminate	47 dB
	Glued Down Wood	50 dB
	Ceramic (or Natural Stone)	51 dB
	LVT	51 dB

PHYSICAL AND MECHANICAL PROPERTIES

LOAD DEFLECTION



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



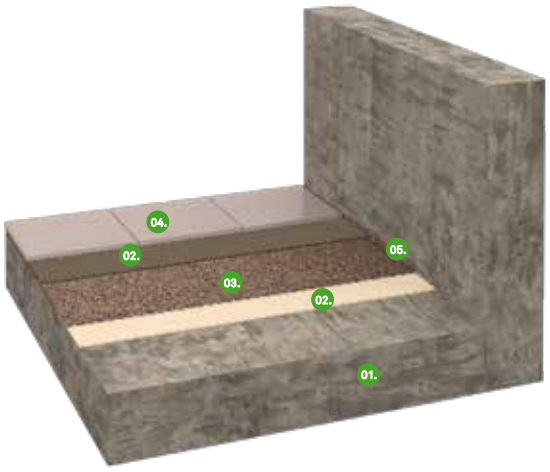
DYNAMIC STIFFNESS

Test procedure according to standards ISO 9052-1, ISO 7626- 5

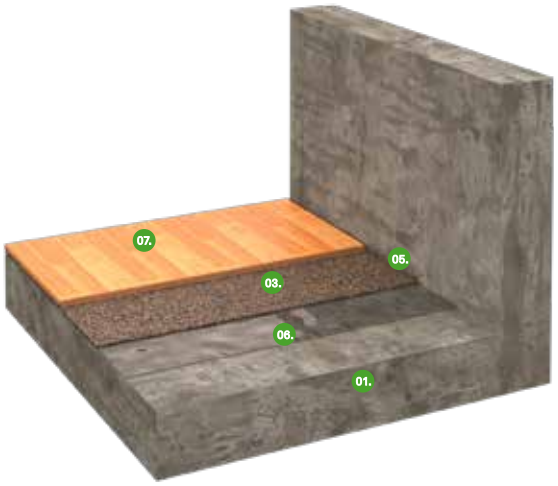
Thickness (mm)	Dynamic Stiffness (MN/m³)
3	98

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		ΔL_w = 19dB
GLUED DOWN WOOD FLOORS		ΔL_w = 16dB
CERAMIC OR NATURAL STONE FLOORS		ΔL_w = 16dB
LVT		ΔL_w = 19dB

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 > 10ºC / Room moisture content < 75%.

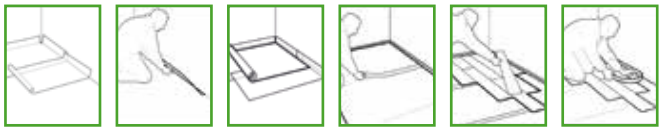
Subfloor
All subfloor work should be structurally sound, clear and level. The moisture content of the subfloor should not be more than 2.5% (CM) by weight measured on concrete subfloors.

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.

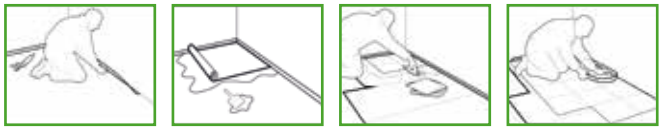
Installation Instruction for Acousticork T66
Unpack the Acousticork T66 at least 24h before the installation and store it in the room where the installation will take place. Cut the T66 to desired length and install directly over the entire floor pulled 30mm up the walls with crown of the rolled materials up (Acousticork label side down), removing all traped 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 severaly diminish its acoustical value.

For detailed installation instructions, please contact us.

AMORIM CORK COMPOSITES

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.

ACOUSTICORK

T85
MATERIAL DATA SHEET

MATERIAL DESCRIPTION & PROPERTIES

NON GLUED LAMINATE FLOORS		ΔL_w = 19dB
GLUED DOWN WOOD FLOORS		ΔL_w = 14dB
CERAMIC OR NATURAL STONE FLOORS		ΔL_w = 12dB
LVT		ΔL_w = 17dB

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 with recycled polyurethane underlay for impact noise insulation.

THERMAL PROPERTIES
Thermal Conductivity: 0,055 W/mK (1)

(1) EN1946-2

PHYSICAL AND MECHANICAL PROPERTIES

Specific Weight (1)	Tensile Strength (1)	Compression (1)	Recovery after 0,7MPa (1)
230-300 kg/m³	> 100 KPa	30%	> 70%

(1) ISO 7322

ACOUSTICAL RESULTS

Flooring	Thickness (mm)	ΔL_w (dB) (1)	IIC (dB) (2)
Non Glued Laminate	2	19	49
Glued Down Wood		14	49
Ceramic (or Natural Stone)		12	46
LVT	1,6	17	52
	2	-	54

(1) ISO 10140-1, ISO 10140-3 & ISO 10140-4 • (2) 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

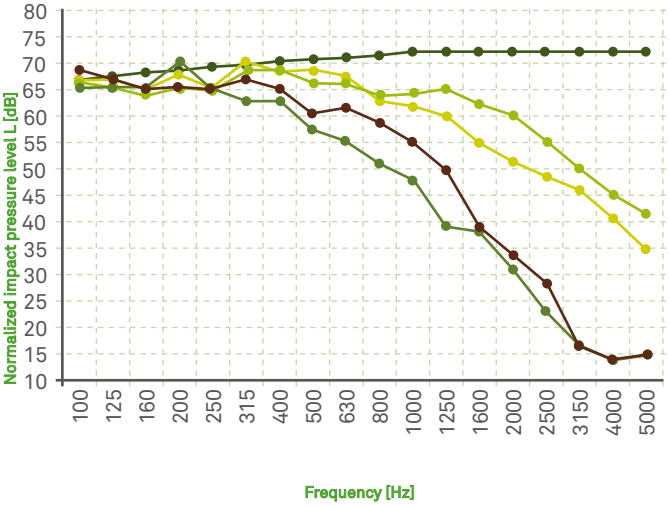
CASTOR CHAIR RESISTANCE
Pass (Ref. Test Report OMC 025/14) (1)

(1) EN425-2002

EMPRESA CERTIFICADA apcer ISO 9001 ISO 14001 OHSAS 18001
FSC www.fsc.org FSC® C022338 The mark of responsible forestry
PEFC

ACOUSTICAL RESULTS

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

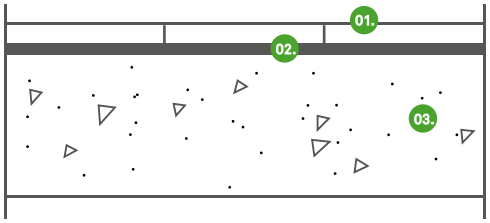


$L_{n,r,0}$(dB)
$L_{n,r}$ (dB) - 2mm GDW*
$L_{n,r}$ (dB) - 1,6mm LVT
$L_{n,r}$ (dB) - 2mm Laminate
$L_{n,r}$ (dB) - 2mm Ceramic

*Glued Down Wood

TEST APPARATUS (ΔL_W & IIC*)

*Except 2mm LVT



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

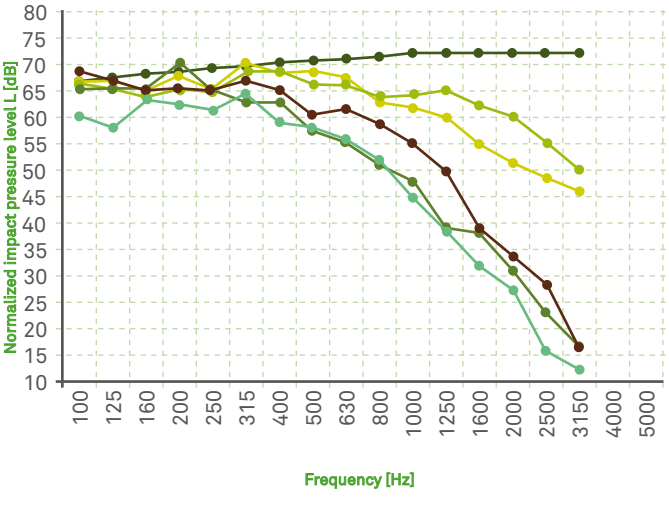
03. Reinforced concrete slab of thickness 140mm

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

Ref. Test Report	Thickness	Flooring	$L_{n,r,w}$ ($C_{I,r}$)	ΔL_w ($C_{I,\Delta}$)
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 standards ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010. Normalized impact sound pressure level and IIC raiting determinated according to standards ASTM E492-09 and ASTM E989-06.

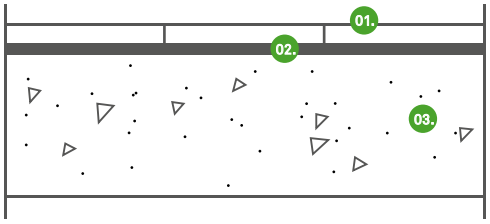


L_{ref}(dB)
$L_{ref,c}$ (dB) - 2mm GDW*
$L_{ref,c}$ (dB) - 1,6mm LVT**
$L_{ref,c}$ (dB) - 2mm Laminate
$L_{ref,c}$ (dB) - 2mm Ceramic
$L_{ref,c}$(dB) - 2mm LVT

*Glued Down Wood
** Test Procedure according to standards ASTM E2179-03

TEST APPARATUS (IIC*)

*Only 2mm LVT



01. Floor covering composed by LVT

02. Agglomerated cork and PU resilient layer - T85

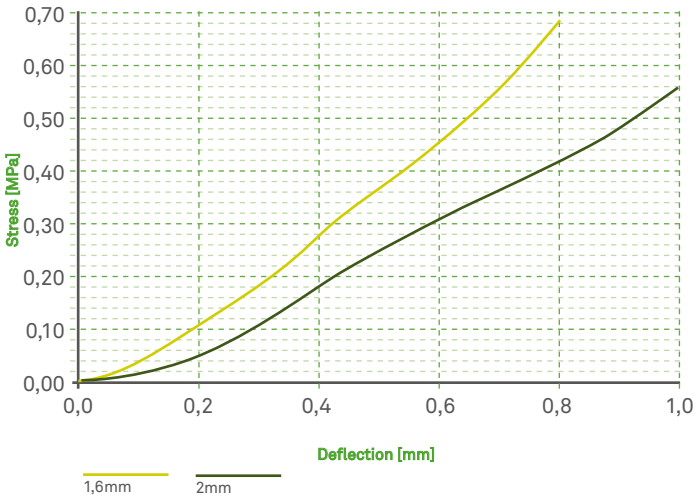
03. Reinforced concrete slab of thickness 203mm

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;

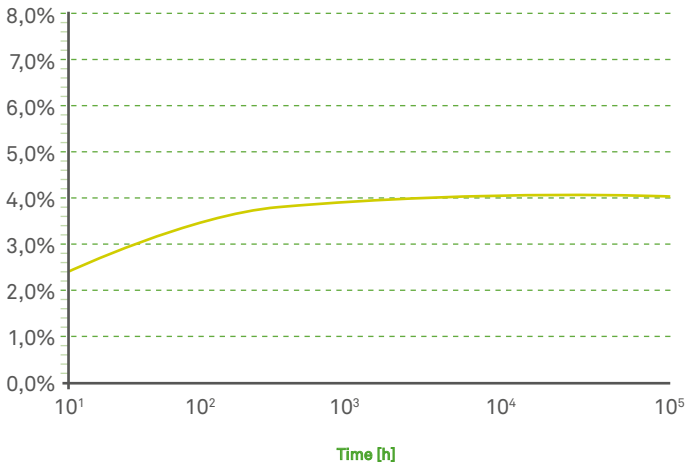
Thickness	Flooring	IIC_c
2 mm	Non Glued Laminate	49 dB
	Glued Down Wood	49 dB
	Ceramic (or Natural Stone)	46 dB
1,6 mm	LVT	52 dB
2 mm	LVT	54 dB

PHYSICAL AND MECHANICAL PROPERTIES

LOAD DEFLECTION



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



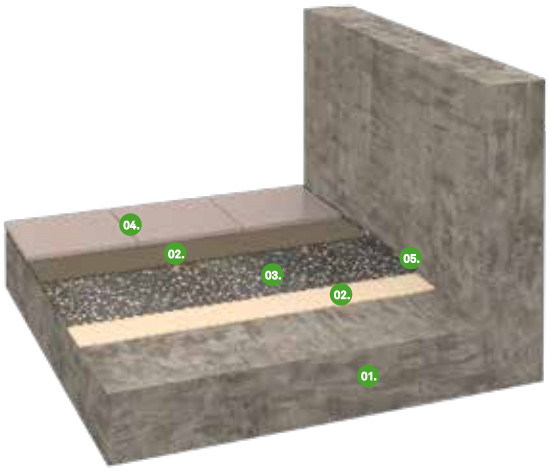
DYNAMIC STIFFNESS

Test procedure according to standards ISO 9052-1, ISO 7626- 5

Thickness (mm)	Dynamic Stiffness (MN/m³)
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		ΔL_w = 19dB
GLUED DOWN WOOD FLOORS		ΔL_w = 14dB
CERAMIC OR NATURAL STONE FLOORS		ΔL_w = 12dB
LVT		ΔL_w = 17dB

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 > 10ºC / Room moisture content < 75%.

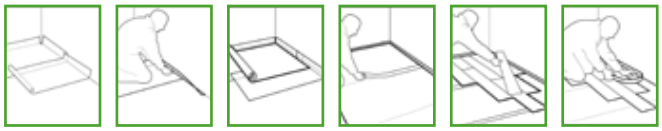
Subfloor
All subfloor work should be structurally sound, clear and level. The moisture content of the subfloor should not be more than 2.5% (CM) by weight measured on concrete subfloors.

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.

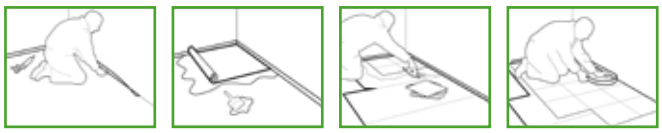
Installation Instruction for Acousticork T85
Unpack the Acousticork T85 at least 24h before the installation and store it in the room where the installation will take place. Cut the T85 to desired length and install directly over the entire floor pulled 30mm up the walls with crown of the rolled materials up (Acousticork label side down), removing all traped 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 severaly diminish its acoustical value.

For detailed installation instructions, please contact us.

AMORIM CORK COMPOSITES

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ACOUSTICORK

REINVENTING SUSTAINABLE
GREEN AND ACOUSTIC
INSULATION

02

UNDERSCREED

UNDERSCREED

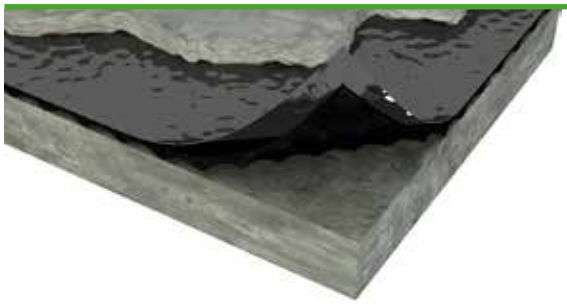
ACOUSTICORK ensures high impact sound insulation in flooring screed application.

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

ACOUSTICORK

U22
MATERIAL DATA SHEET

MATERIAL DESCRIPTION & PROPERTIES



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 impact noise insulation of floating screed.

THERMAL PROPERTIES
Thermal Conductivity: 0,140 W/mK [1]

[1] ISO 8301

PHYSICAL AND MECHANICAL PROPERTIES

Specific Weight [1]	Dynamic Stiffness [2]	Tensile Strength [3]	Recovery [4]
650 - 750 Kg/m^3	20 MN/m^3	> 350 KPa	> 80%

* [1] ASTM F1315 • [2] ISO 9052-1 & ISO 7626-5 • [3] ASTM F152 • [4] ASTM F36

ACOUSTICAL RESULTS

Thickness (mm)	ΔL_w (dB) [1]	IIC (dB) [2]
4	22	50
4/2	-	-
6	22	50
6/3	-	-
8	23	51
8/4	23	51
10	23	51
10/5	-	-

[1] ISO 10140-1, ISO 10140-3 & ISO 10140-4 • [2] ASTM E492-09 & ASTM E989-06

STANDARD DIMENSIONS

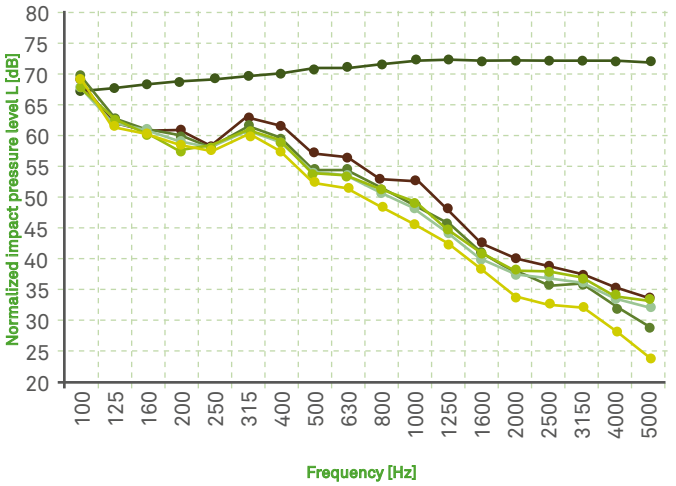
Thickness (mm)	4	4/2	6	6/3	8	8/4	10	10/5
Width (m) x Length (m)	1 x 15	1 x 30	1 x 10	1 x 20	1 x 10	1 x 15	1 x 10	1 x 10

Others sizes available upon request

EMPRESA CERTIFICADA apcer ISO 9001 ISO 14001 OHSAS 18001
FSC www.fsc.org FSC® C022338 The mark of responsible forestry
PEFC

ACOUSTICAL RESULTS

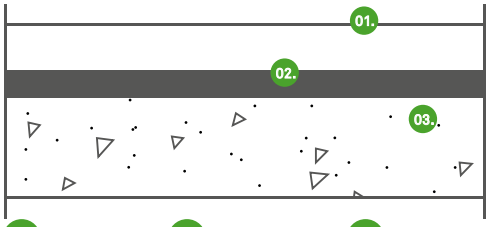
Test procedure according to standards ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010 and ISO 717-2:2013



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

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

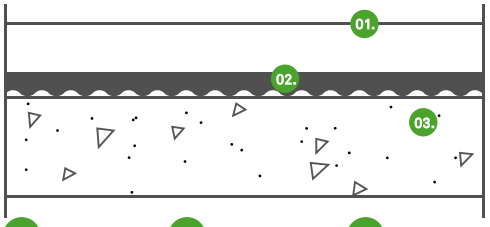
TEST APPARATUS (ΔL_W & IIC)



01. Concrete floating screed with 70mm thickness

02. Agglomerated recycled rubber resilient layer - U22

03. Reinforced concrete slab of thickness 140mm



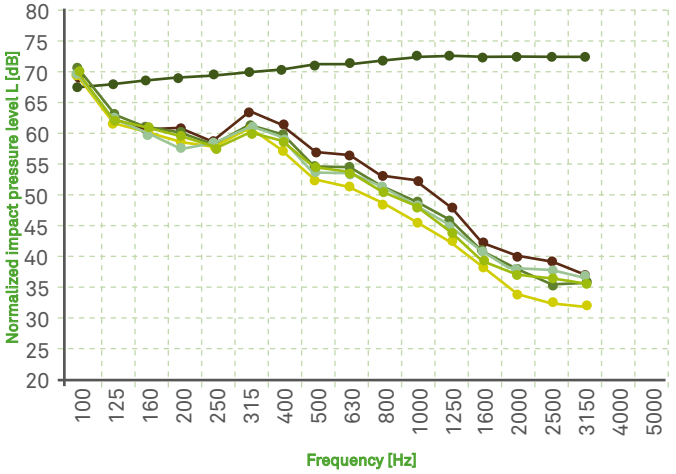
01. Concrete floating screed with 70mm thickness

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 standards ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010. Normalized impact sound pressure level and IIC raiting determinated according to standards ASTM E492-09 and ASTM E989-06.

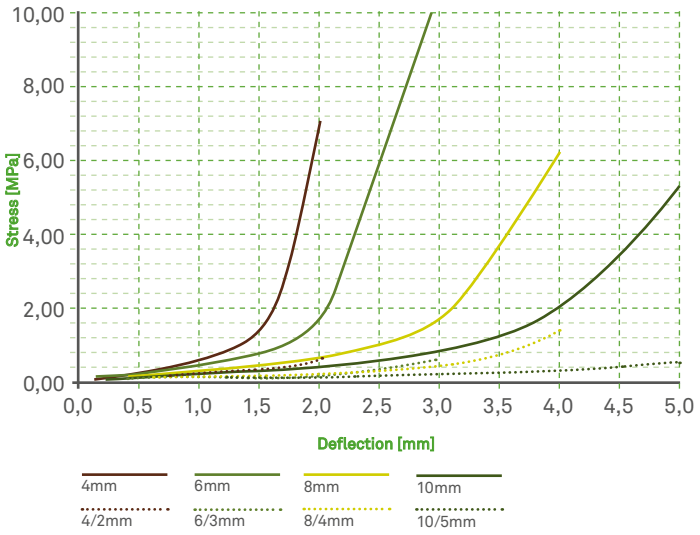


L_{ref} - Normalized impact sound pressure level of the reference floor with the floor covering under test;
$L_{ref,c}$ - Normalized impact sound pressure level of the Lab reference floor;

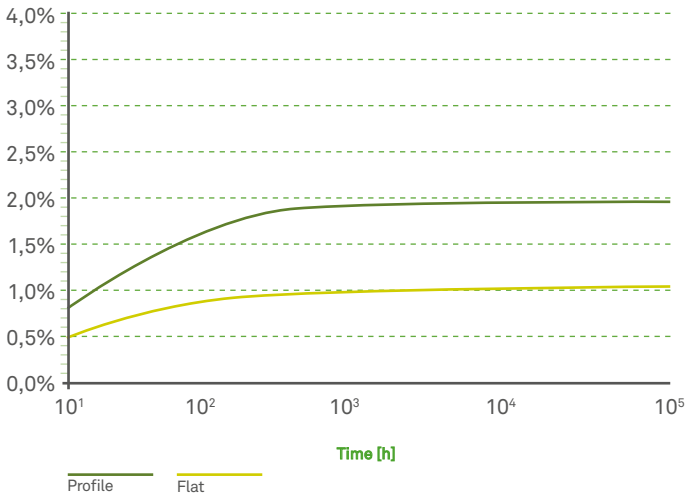
Thickness	IIC_c
4mm	50 dB
6mm	50 dB
8mm	51 dB
8/4mm	51 dB
10mm	51 dB

PHYSICAL AND MECHANICAL PROPERTIES

LOAD DEFLECTION



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

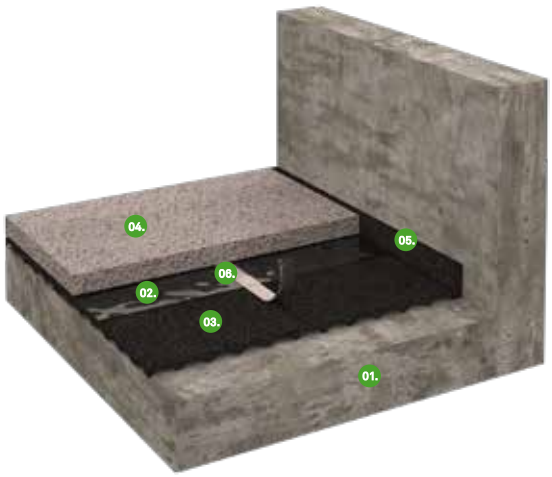


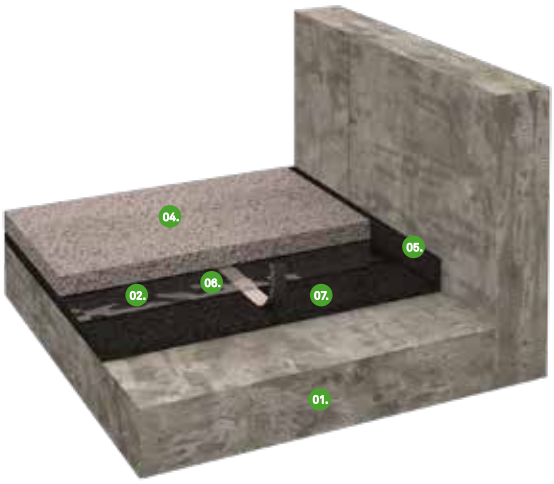
DYNAMIC STIFFNESS

Test procedure according to standards ISO 9052-1, ISO 7626- 5

Thickness	4mm	4/2mm	6mm	6/3mm	8mm	8/4mm	10mm	10/5mm
Dynamic Stiffness (MN/m³)	52	32	44	25	38	23	37	20

INSTALLATION





01. Reinforced concrete slab

02. Vapor barrier

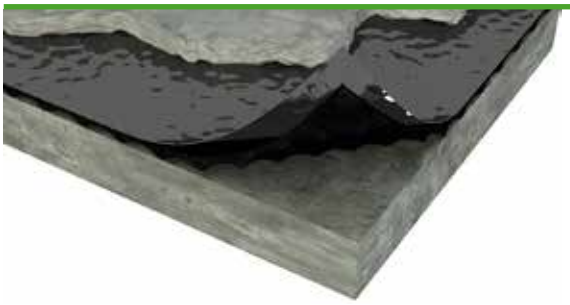
03. Agglomerated recycled rubber resilient layer with one face dimpled - U22 Profile

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 > -5ºC / Room moisture content < 75%.

Subfloor
All subfloor work should be structurally sound, clear and level. The moisture content of the subfloor should not be more than 2.5% (CM) by weight measured on concrete subfloors.

Perimeter Insulation Barrier
Install a perimeter insulation barrier vertically around the entire perimeter of the room with width equal to that of the floor build up. This is highly recommended in order to avoid lateral propagation of impact noise. The barrier must also be applied in the perimeter of pipes, ducts or any other component protruding from the floor. Spot adhere the strips to the wall using acrylic glue or a bead of silicone sealant.

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 desined size to fit the installation. Apply directly over the subfloor. Always ensure that material is installed to fit the application avoiding the creation of waves in the material. In case of profile material, dimple side must face down.

Place the Acousticork 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.

AMORIM CORK COMPOSITES

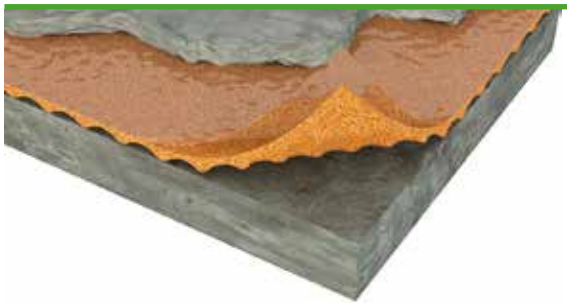
The data provided in this Material Data Sheet represents typical values. This information is not intended to be used as a purchasing specification and does not imply suitability for use in a specific application. Failure to select the proper product may result in either equipments damage or personal 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.

ACOUSTICORK

U32

MATERIAL DATA SHEET

MATERIAL DESCRIPTION & PROPERTIES



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 impact noise insulation of floating screed.

THERMAL PROPERTIES

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

(1) ISO 8301

PHYSICAL AND MECHANICAL PROPERTIES

Specific Weight (1)	Dynamic Stiffness (2)	Tensile Strength (3)	Recovery (4)
150 - 220 Kg/m^3	38 MN/m^3	> 200 KPa	> 70%

* (1) ASTM F1315 • (2) ISO 9052-1 & ISO 7626-5 • (3) ASTM F152 • (4) ASTM F36

ACOUSTICAL RESULTS

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

* Available tests soon (1)ISO 10140-1, ISO 10140-3 & ISO 10140-4 • (2)ASTM E492-09 & ASTM E989-06

STANDARD DIMENSIONS

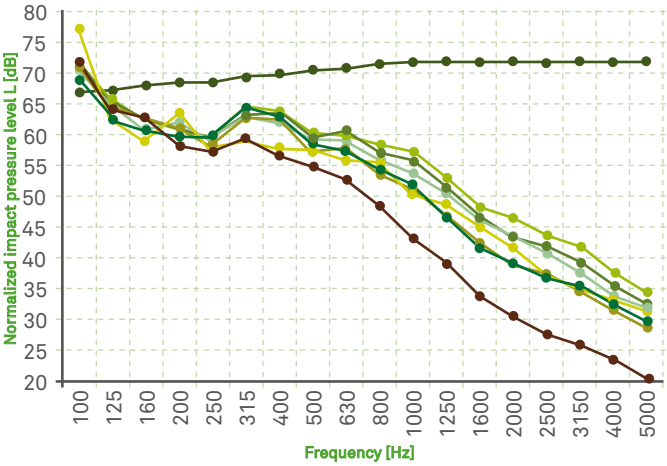
Thickness (mm)	4	4/2	6	6/3	8/4	10	10/5
Width (m) x Length (m)	1 x 20	1 x 30	1 x 20	1 x 20	1 x 15	1 x 15	1 x 10

Others sizes available upon request

EMPRESA CERTIFICADA apcer ISO 9001 ISO 14001 OHSAS 18001
FSC www.fsc.org FSC® C022338 The mark of responsible forestry
PEFC

ACOUSTICAL RESULTS

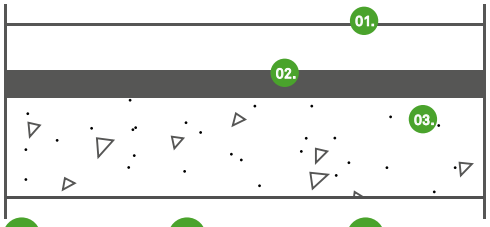
Test procedure according to standards ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010 and ISO 717-2:2013



$L_{n,r}$ - Normalized impact sound pressure level of the reference floor with the floor covering under test;
$L_{n,r0}$ - Normalized impact sound pressure level of the Lab reference floor;
ΔL_w - Impact sound pressure level reduction index of the covering under test, on a normalized floor;

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

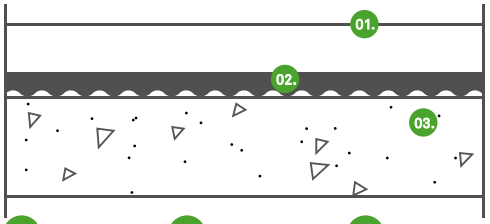
TEST APPARATUS (ΔL_W & IIC)



01. Concrete floating screed with 70mm thickness

02. Agglomerated cork resilient layer - U32

03. Reinforced concrete slab of thickness 140mm



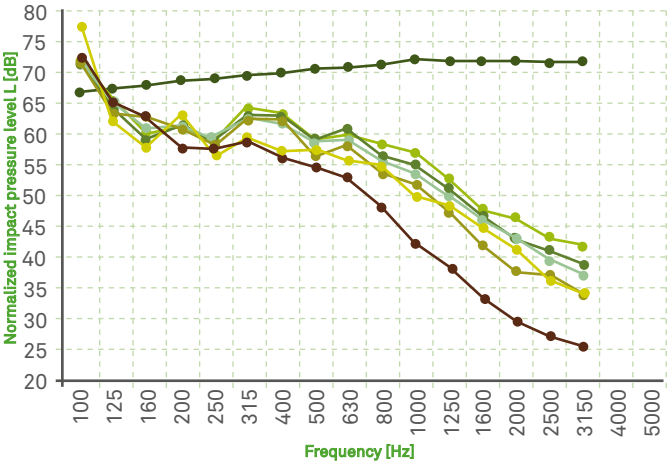
01. Concrete floating screed with 70mm thickness

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

03. Reinforced concrete slab of thickness 140mm

ACOUSTICAL RESULTS

Test procedure according to standards ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010. Normalized impact sound pressure level and IIC raiting determinated according to standards ASTM E492-09 and ASTM E989-06.



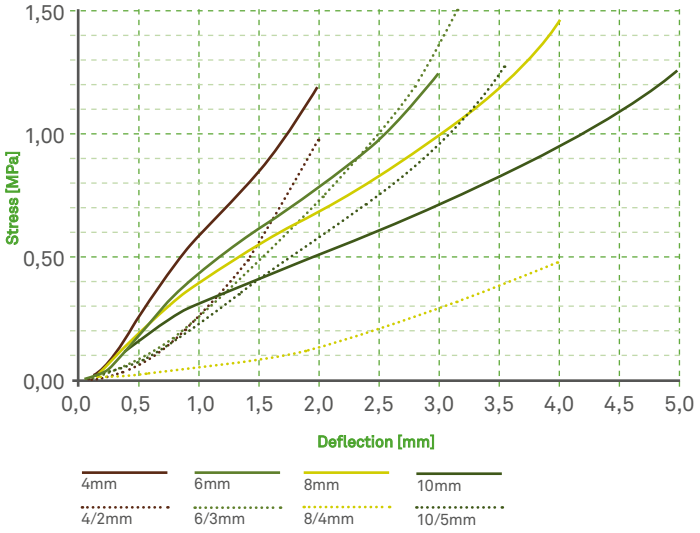
L_{ref} - Normalized impact sound pressure level of the reference floor with the floor covering under test;
$L_{ref,c}$ - Normalized impact sound pressure level of the Lab reference floor;

Thickness	IIC_c
4 mm	47 dB
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

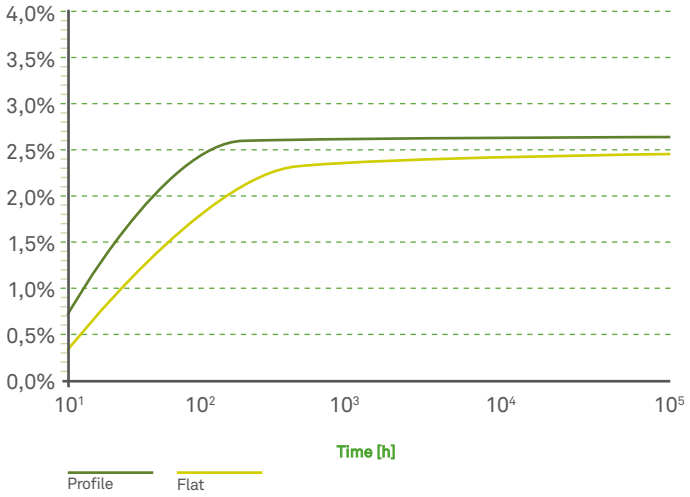
*Improvement in impact insulation class

PHYSICAL AND MECHANICAL PROPERTIES

LOAD DEFLECTION



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

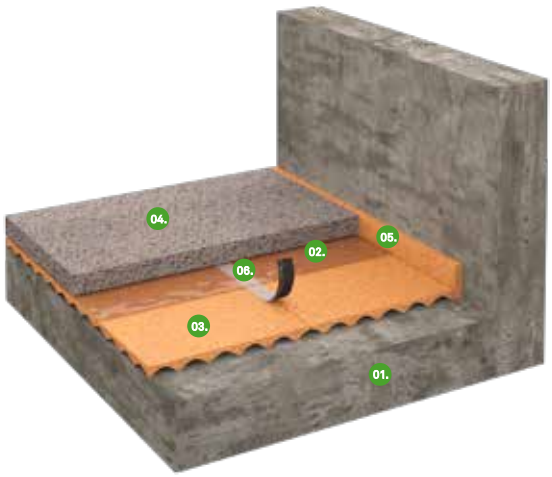


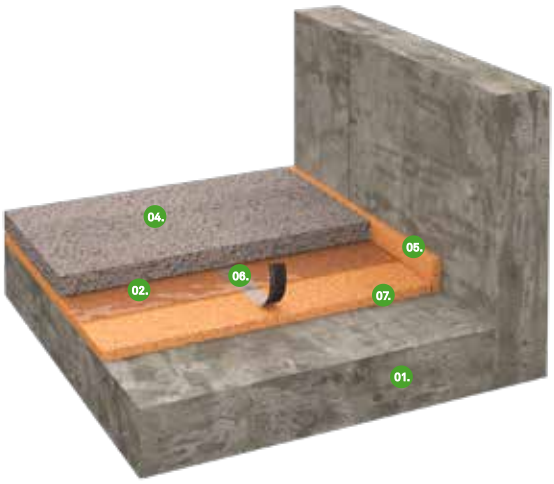
DYNAMIC STIFFNESS

Test procedure according to standards ISO 9052-1, ISO 7626- 5

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

INSTALLATION





01. Reinforced concrete slab

02. Vapor barrier

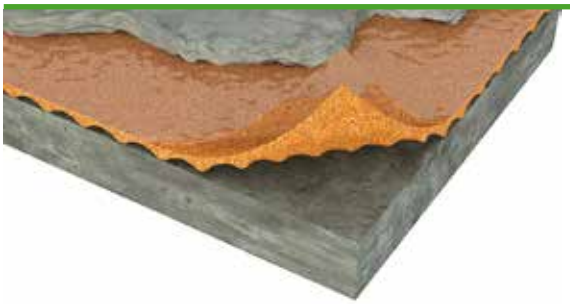
03. Agglomerated cork resilient layer with one face dimpled - U32 Profile

04. Concrete floating screed

05. Perimeter insulation barrier

06. Adhesive tape

07. Agglomerated cork resilient layer - U32



FLOATING SCREED

U32
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 > -5ºC / Room moisture content < 75%.

Subfloor
All subfloor work should be structurally sound, clear and level. The moisture content of the subfloor should not be more than 2.5% (CM) by weight measured on concrete subfloors.

Perimeter Insulation Barrier
Install a perimeter insulation barrier vertically around the entire perimeter of the room with width equal to that of the floor build up. This is highly recommended in order to avoid lateral propagation of impact noise. The barrier must also be applied in the perimeter of pipes, ducts or any other component protruding from the floor. Spot adhere the strips to the wall using acrylic glue or a bead of silicone sealant.

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

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

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

Always follow manufacturers recommended installation instructions.

For detailed installation instructions, please contact us.

AMORIM CORK COMPOSITES

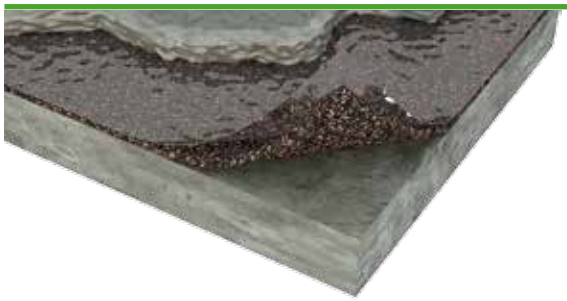
The data provided in this Material Data Sheet represents typical values. This information is not intended to be used as a purchasing specification and does not imply suitability for use in a specific application. Failure to select the proper product may result in either equipments damage or personal 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.

ACOUSTICORK

U85

MATERIAL DATA SHEET

MATERIAL DESCRIPTION & PROPERTIES



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 impact noise insulation of floating screed.

THERMAL PROPERTIES

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

(1) ISO 8301

PHYSICAL AND MECHANICAL PROPERTIES

Specific Weight (1)	Dynamic Stiffness (2)	Tensile Strength (3)	Recovery (4)
230 - 300 Kg/m^3	27 MN/m^3	> 100 KPa	> 70%

* (1) ASTM F1315 • (2) ISO 9052-1 & ISO 7626-5 • (3) ASTM F152 • (4) ASTM F36

ACOUSTICAL RESULTS

Thickness (mm)	ΔL_w (dB) (1)	IIC (dB) (2)
4	19	51
4/2	23	52
6	20	51
6/3	23	52

(1) ISO 10140-1, ISO 10140-3 & ISO 10140-4 • (2) ASTM E492-09 & ASTM E989-06

STANDARD DIMENSIONS

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

Others sizes available upon request

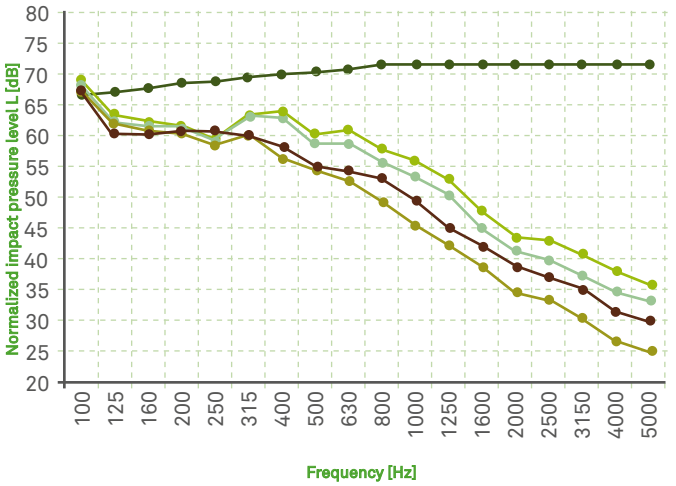
EMPRESA CERTIFICADA apcer ISO 9001 ISO 14001 OHSAS 18001

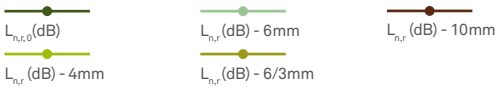
FSC www.fsc.org FSC® C022338 The mark of responsible forestry

PEFC

ACOUSTICAL RESULTS

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

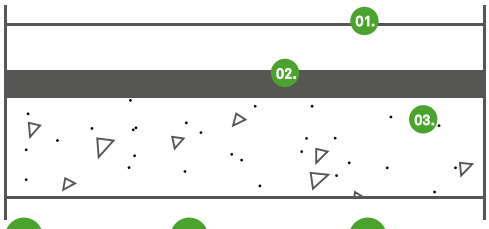




$L_{n,r}$ - Normalized impact sound pressure level of the reference floor with the floor covering under test;
$L_{n,r,0}$ - Normalized impact sound pressure level of the Lab reference floor;
ΔL_w - Impact sound pressure level reduction index of the covering under test, on a normalized floor;

Ref. Test Report	Thickness	$L_{n,r,w}$ ($C_{I,r}$)	ΔL_w ($C_{I,\Delta}$)
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

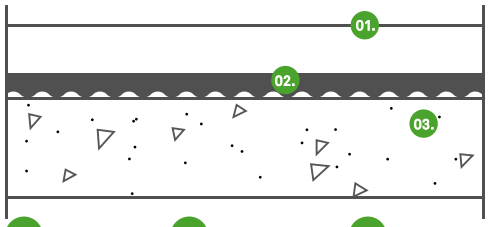
TEST APPARATUS (ΔL_W & IIC)



01. Concrete floating screed with 70mm thickness

02. Agglomerated cork and PU resilient layer - U85

03. Reinforced concrete slab of thickness 140mm



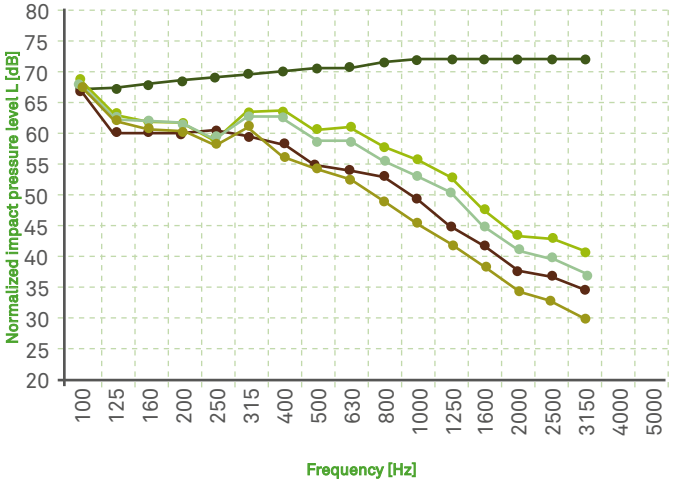
01. Concrete floating screed with 70mm thickness

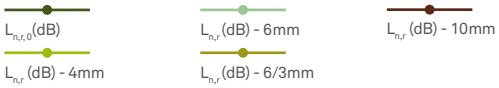
02. Agglomerated cork and PU resilient layer with one face dimpled - U85 Profile

03. Reinforced concrete slab of thickness 140mm

ACOUSTICAL RESULTS

Test procedure according to standards ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010. Normalized impact sound pressure level and IIC raiting determinated according to standards ASTM E492-09 and ASTM E989-06.





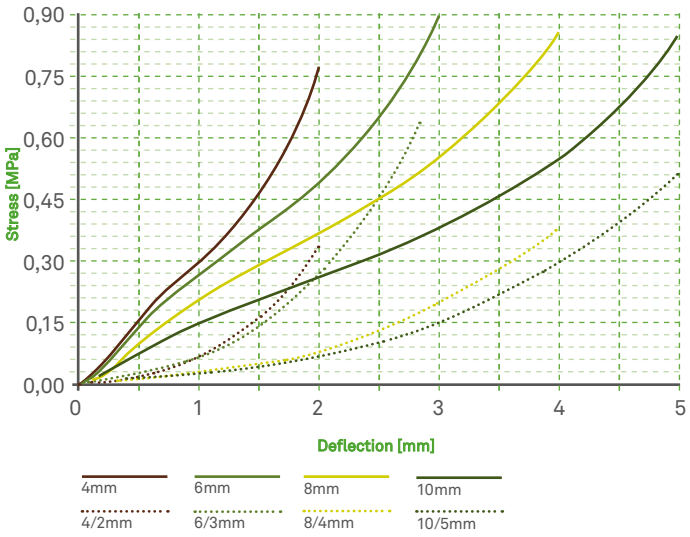
L_{ref} - Normalized impact sound pressure level of the reference floor with the floor covering under test;
$L_{ref,c}$ - Normalized impact sound pressure level of the Lab reference floor;

Thickness	IIC_c
4 mm	51 dB
4/2 mm	52 dB
6 mm	51 dB
6/3 mm	52 dB

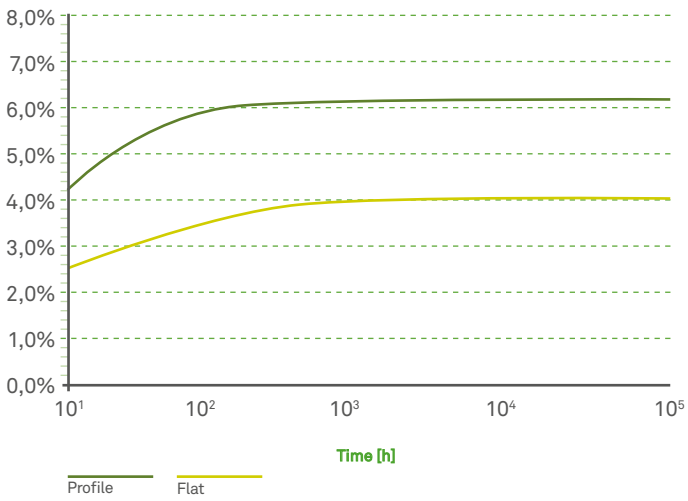
*Improvement in impact insulation class

PHYSICAL AND MECHANICAL PROPERTIES

LOAD DEFLECTION



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

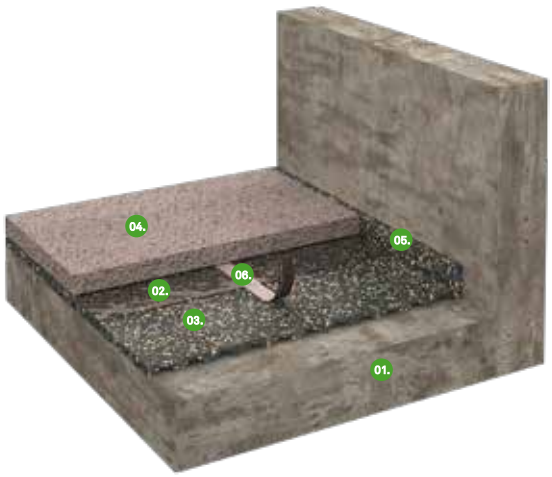


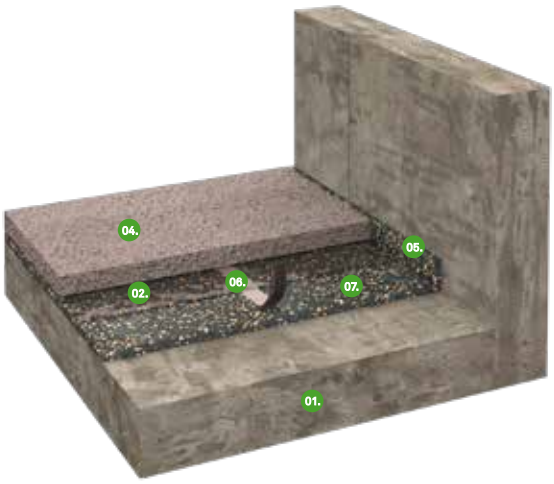
DYNAMIC STIFFNESS

Test procedure according to standards ISO 9052-1, ISO 7626- 5

Thickness	4mm	4/2mm	6mm	6/3mm	8mm	8/4mm	10mm	10/5mm
Dynamic Stiffness (MN/m³)	85	52	82	50	72	32	60	27

INSTALLATION





01. Reinforced concrete slab

02. Vapor barrier

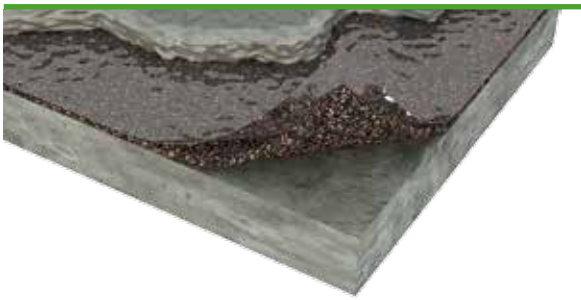
03. Agglomerated cork and PU resilient layer with one face dimpled - U85 Profile

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 > -5ºC / Room moisture content < 75%.

Subfloor
All subfloor work should be structurally sound, clear and level. The moisture content of the subfloor should not be more than 2.5% (CM) by weight measured on concrete subfloors.

Perimeter Insulation Barrier
Install a perimeter insulation barrier vertically around the entire perimeter of the room with width equal to that of the floor build up. This is highly recommended in order to avoid lateral propagation of impact noise. The barrier must also be applied in the perimeter of pipes, ducts or any other component protruding from the floor. Spot adhere the strips to the wall using acrylic glue or a bead of silicone sealant.

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 desined size to fit the installation. Apply directly over the subfloor. Always ensure that material is installed to fit the application avoiding the creation of waves in the material. In case of profile material, dimple side must face down.

Place the Acousticork 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.

AMORIM CORK COMPOSITES

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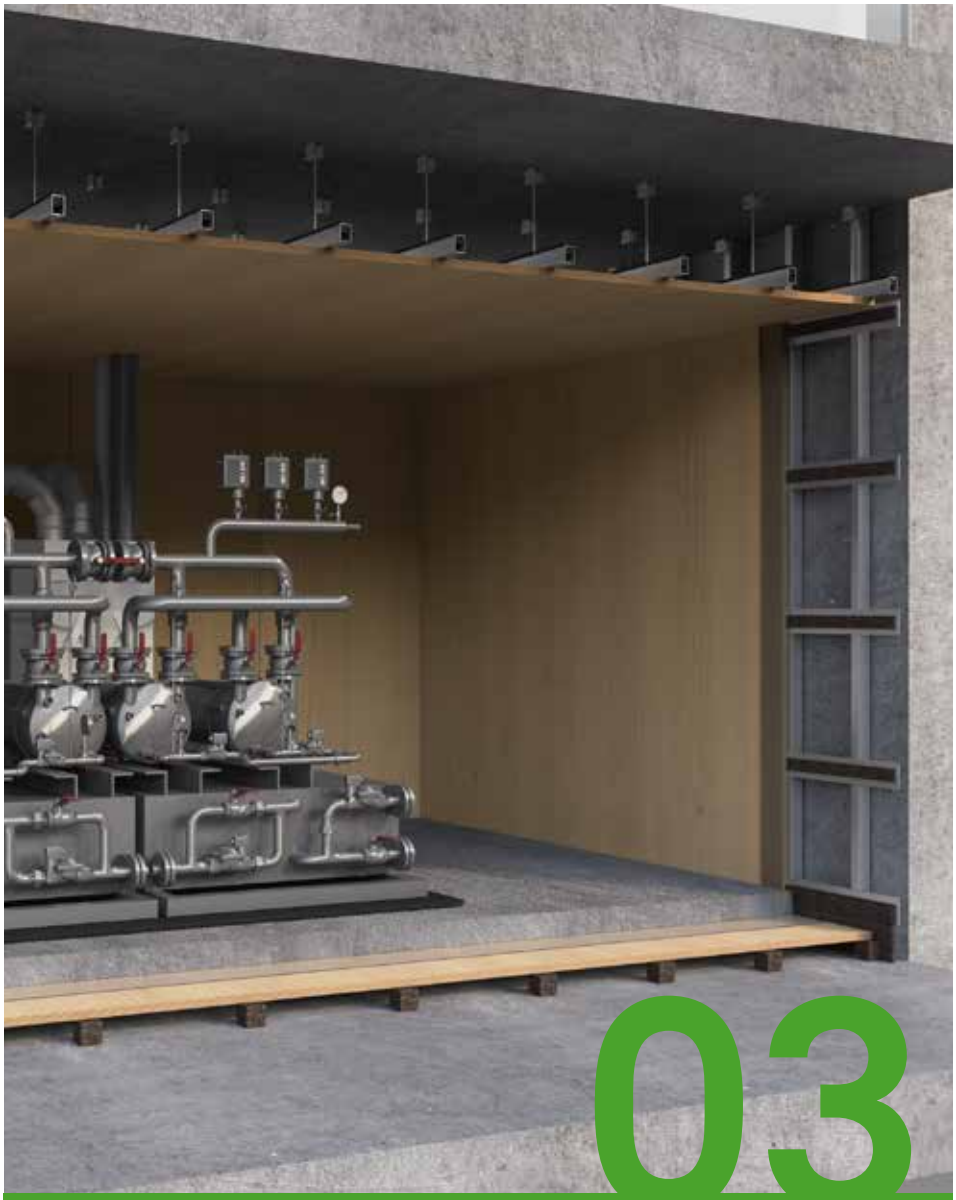
ACOUSTICORK

REINVENTING SUSTAINABLE GREEN AND ACOUSTIC INSULATION

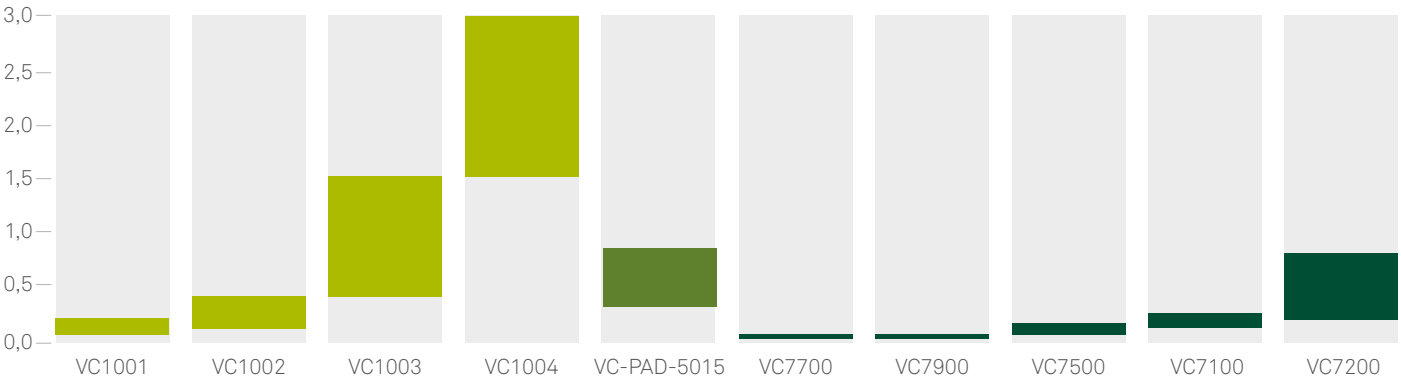


03

VIBRATION CONTROL

VIBRATION CONTROL

ACOUSTICORK's specific material formulations for vibration control ally performance to environmental concerns.



CORK & NATURAL RUBBER ENGINEERED COMPOUND

FEATURES:

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

BENEFITS:

- High Vibration Isolation
- Low Resonance Frequency
- Long Term Durability
- Can be used in Strips or Pads

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 Isolation
- Lower Amplification at Resonance
- Long Term Durability
- Good Quality/Value Ratio
- Can be used in Mats, Strips or 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 Isolation
- Long Term Durability
- Good Quality/Value Ratio
- Can be used in Mats and Strips

ACOUSTICORK

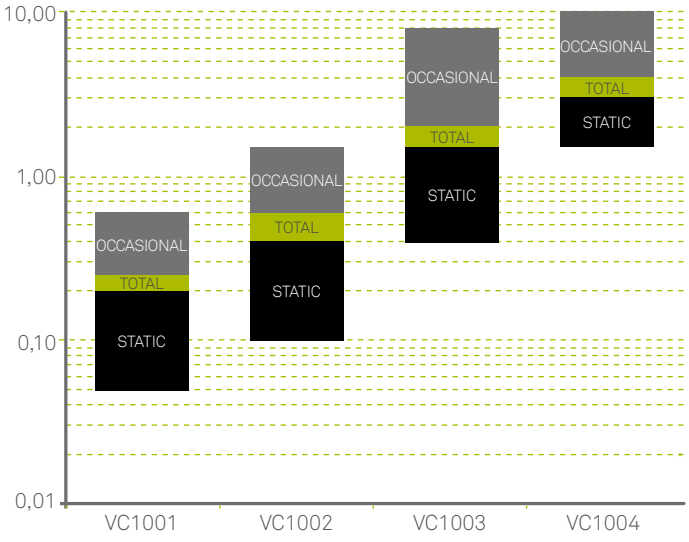
VC1001
MATERIAL DATA SHEET

MATERIAL DESCRIPTION & PROPERTIES

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 ressonance frequency and low load.

WORK LOAD RANGE [MPa]



LOAD RANGE

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

E-MODULE (@ stable load)

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

TEMPERATURE

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

FEATURES

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

Density (kg/m³) (1)	500 (31 lb/ft³)
Shore hardness (Shore A) (2)	20 - 35
Elongation at break (%) (3)	> 80
Tensile strength (MPa) (3)	> 0,25 (>36 psi)
Compression set 50%/23°C/70h (%) (4)	< 20
Compressibility at 0,7 MPa (%) (5)	45 - 60
Recovery at 0,7MPa (%) (5)	> 85

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

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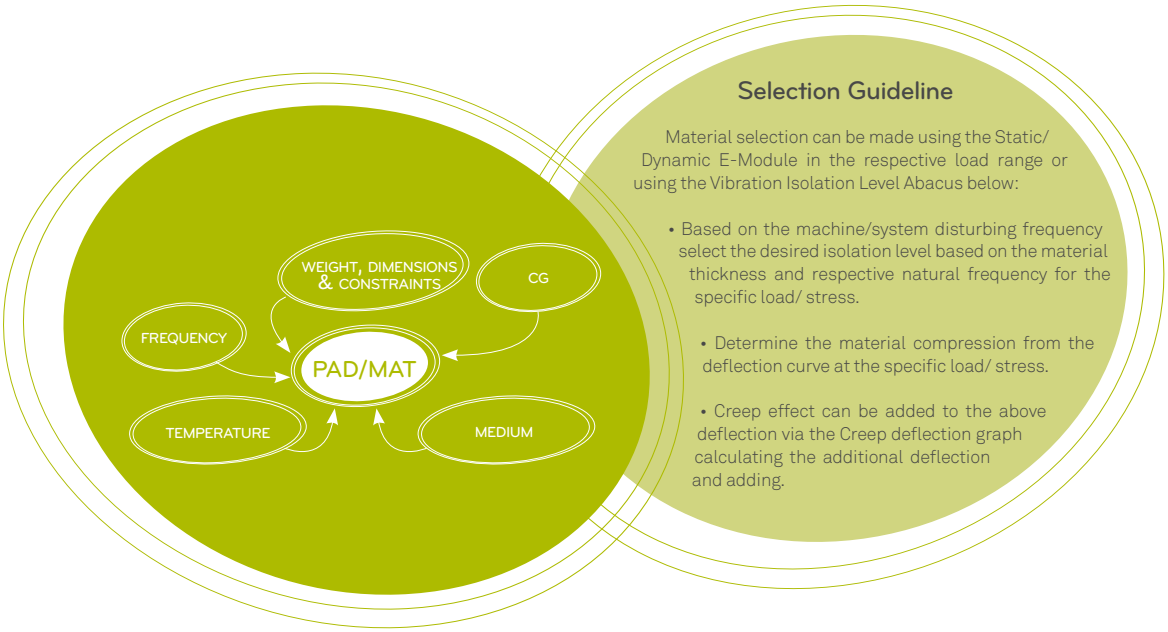
AMORIM CORK COMPOSITES

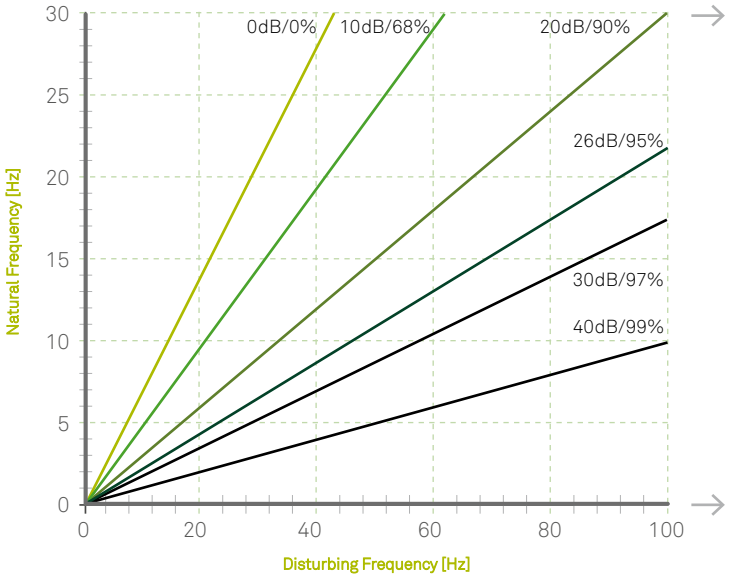


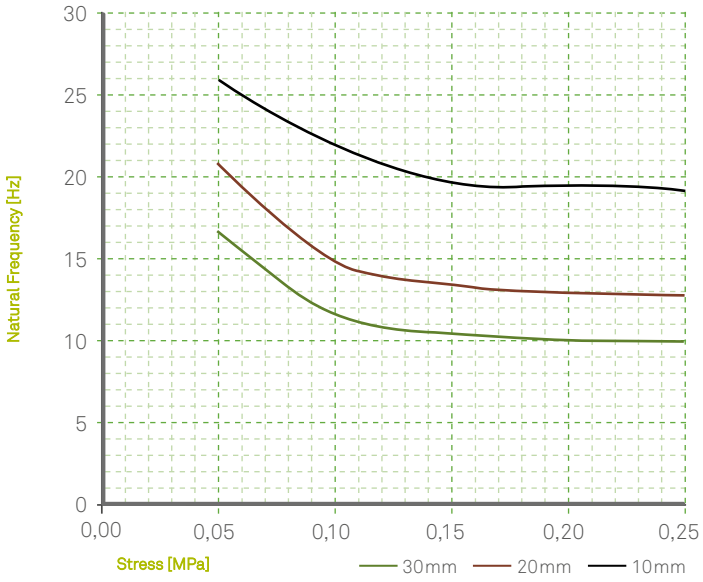
Selection Guideline

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

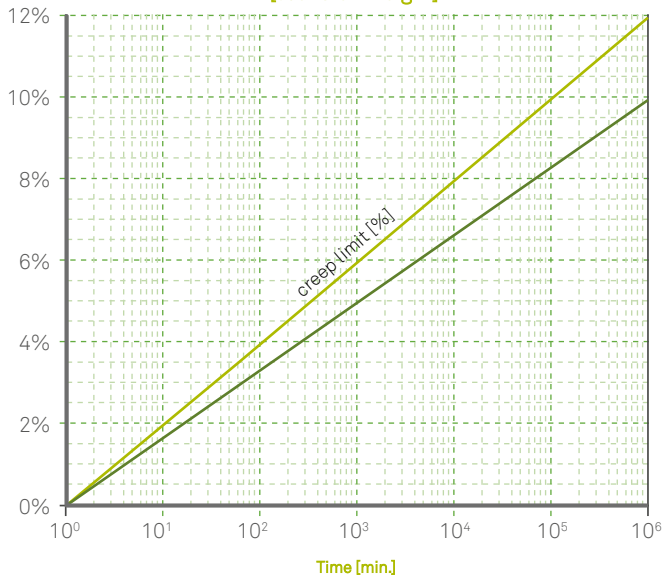
- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added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

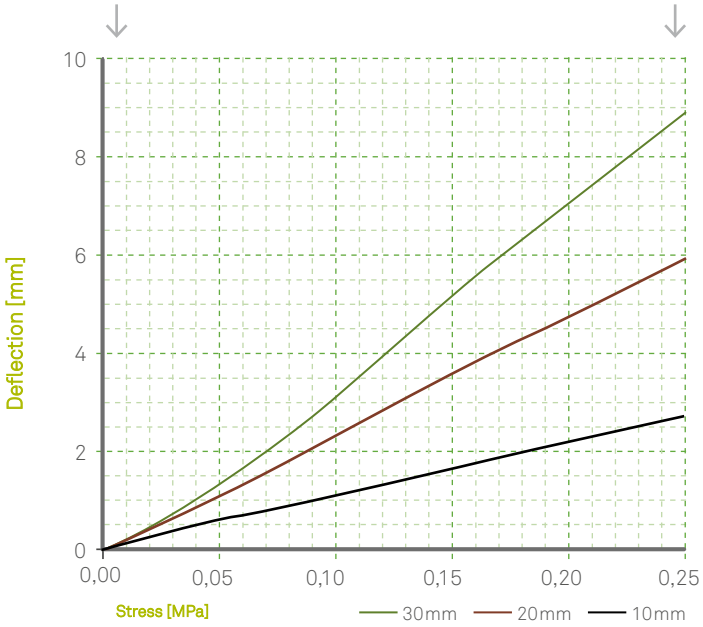
Vibration Isolation Level





Creep Deflection @ 0.25 MPa [%of start height]





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ACOUSTICORK

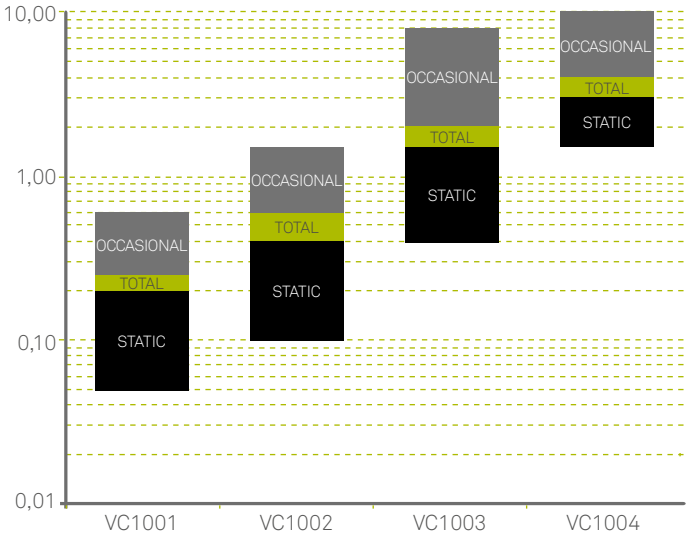
VC1002
MATERIAL DATA SHEET

MATERIAL DESCRIPTION & PROPERTIES

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 ressonance frequency and medium low load.

WORK LOAD RANGE [MPa]



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	1,6 - 4,0 MPa (232 - 580 psi)
• DYNAMIC	3,5 - 8,0 MPa (507 - 1160 psi)

TEMPERATURE

• RANGE	-10 / +100°C (+14 / 212 °F)

FEATURES

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

Density (kg/m³) (1)	700 (44 lb/ft³)
Shore hardness (Shore A) (2)	35 - 50
Elongation at break (%) (3)	> 200
Tensile strength (MPa) (3)	> 2,0 (>290 psi)
Compression set 50%/23°C/70h (%) (4)	< 15
Compressibility at 0,7 MPa (%) (5)	55 - 65
Recovery at 0,7MPa (%) (5)	> 90

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

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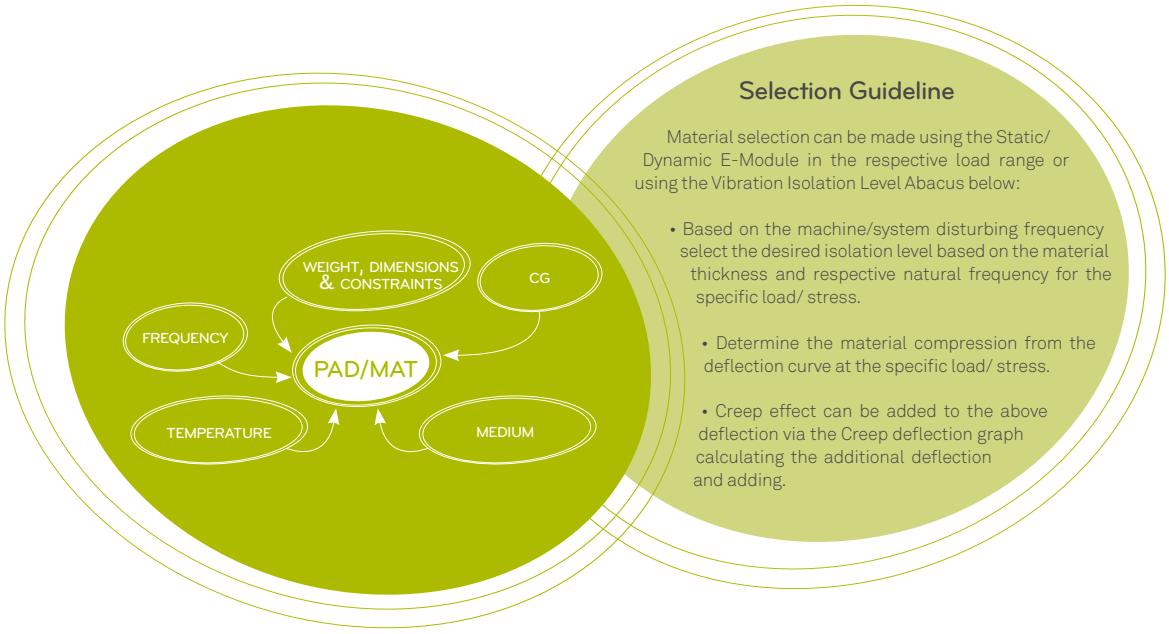
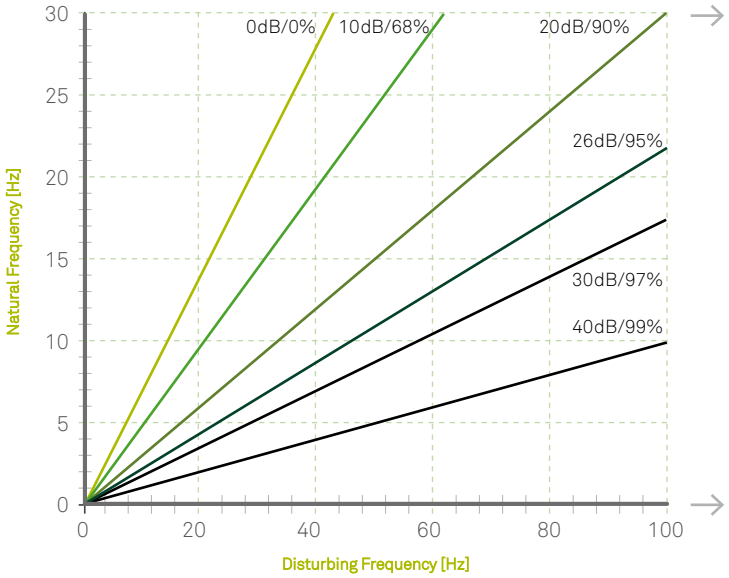


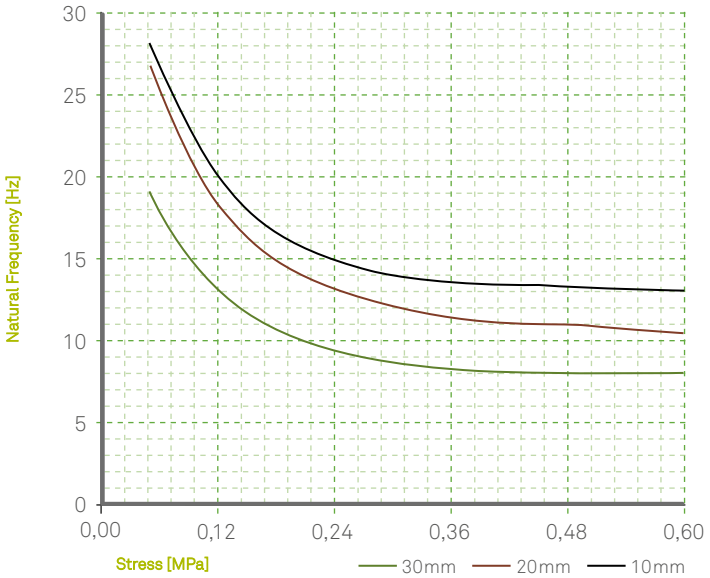
Selection Guideline

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

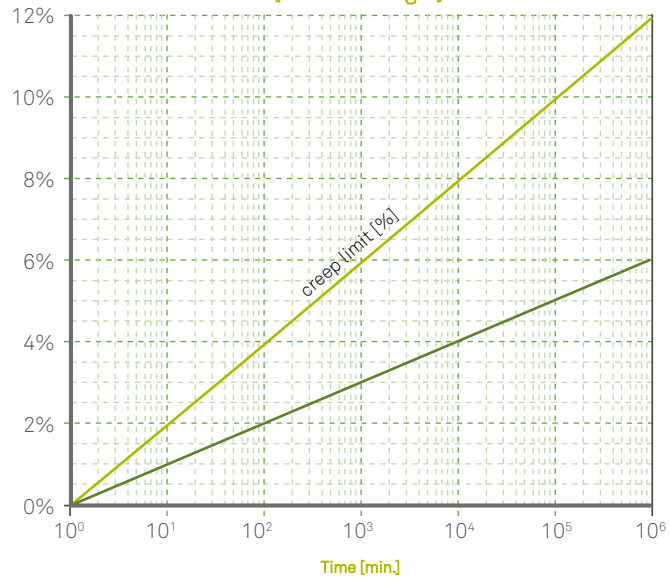
- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added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

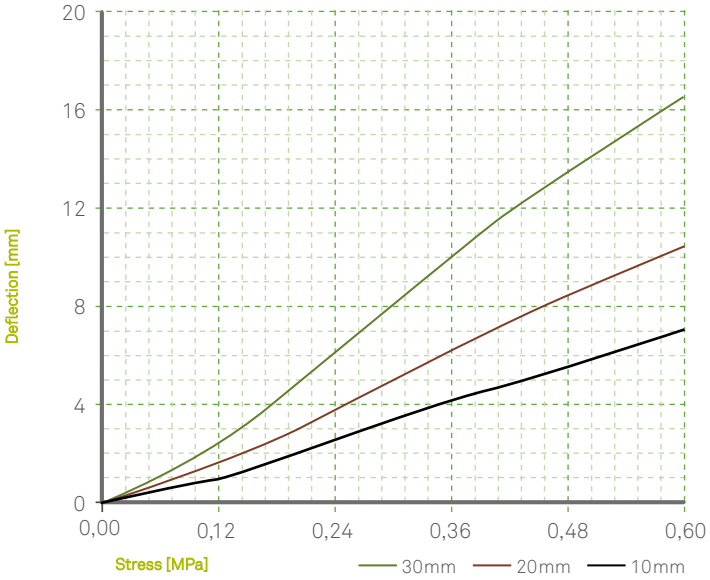
Vibration Isolation Level





Creep Deflection @ 0.4 MPa [%of start height]





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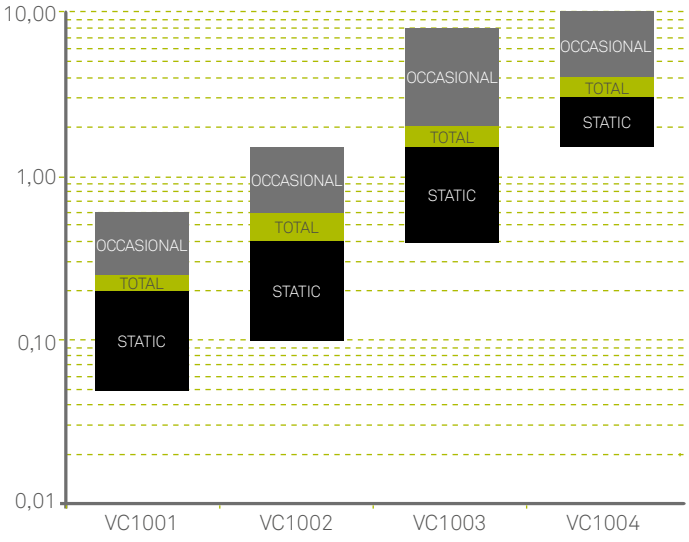
MATERIAL DESCRIPTION & PROPERTIES

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 ressonance 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**	5,0 - 13,0 MPa (725 - 1885 psi)
• **DYNAMIC**	10,0 - 33,0 MPa (1450- 4785 psi)

TEMPERATURE

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

Density (kg/m³) (1)	1100 (68 lb/ft³)
Shore hardness (Shore A) (2)	45 - 60
Elongation at break (%) (3)	> 300
Tensile strength (MPa) (3)	> 5,0 (>725 psi)
Compression set 50%/23°C/70h (%) (4)	< 15
Compressibility at 0,7 MPa (%) (5)	40 - 60
Recovery at 0,7MPa (%) (5)	> 90

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

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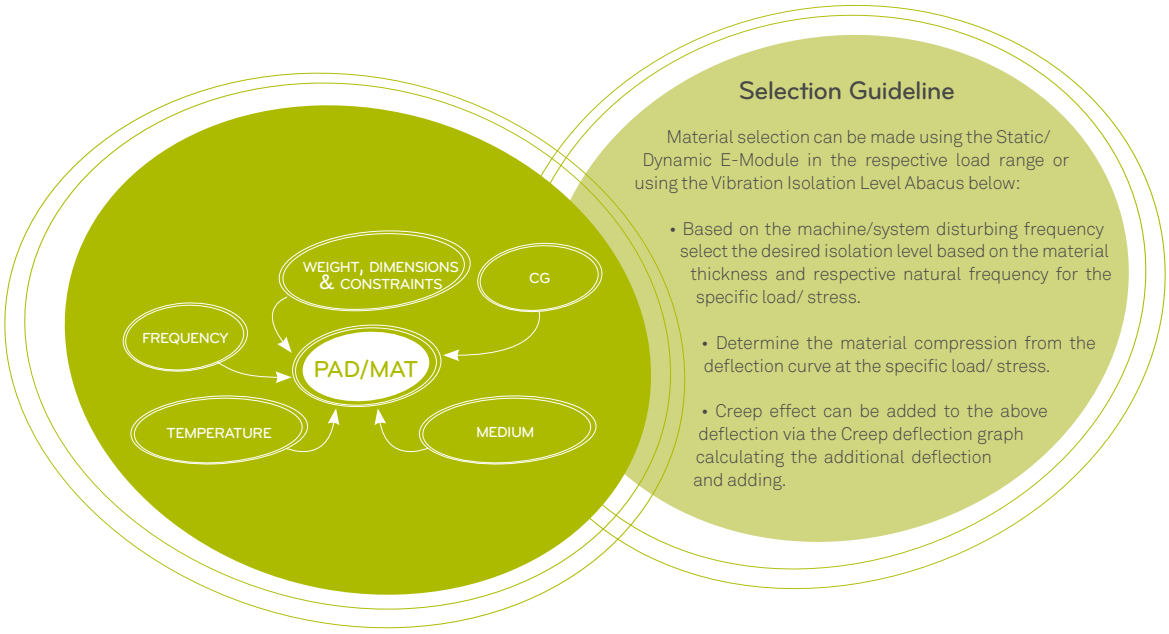
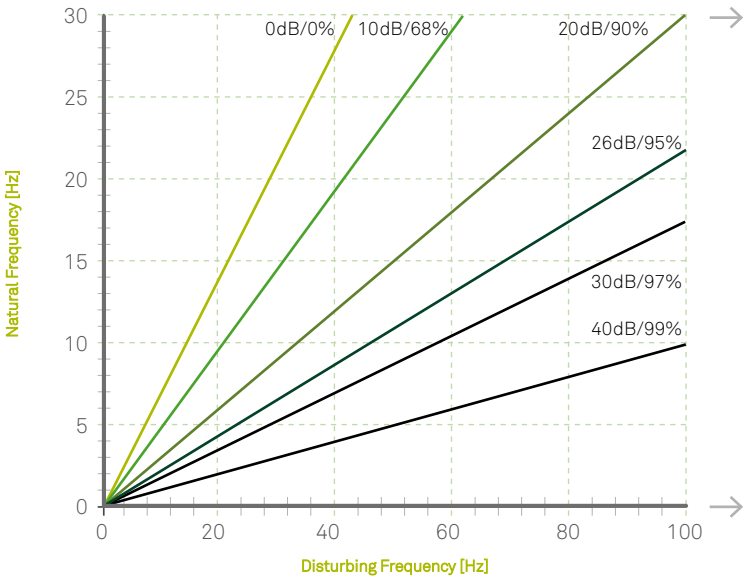


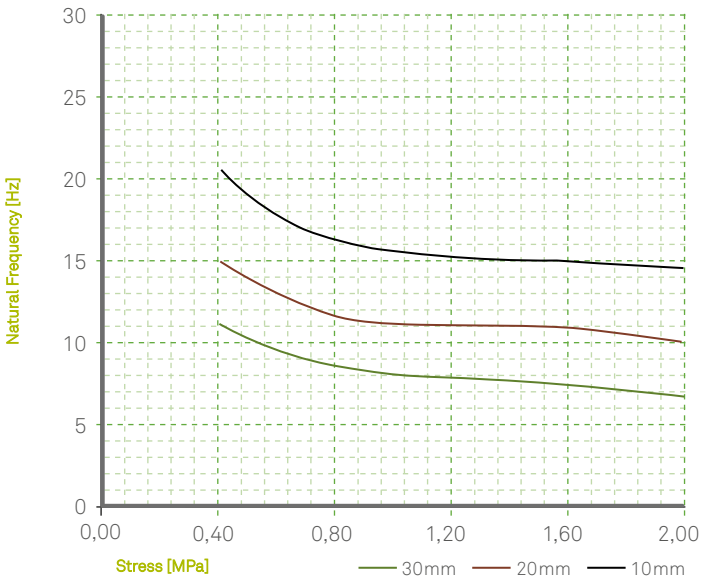
Selection Guideline

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

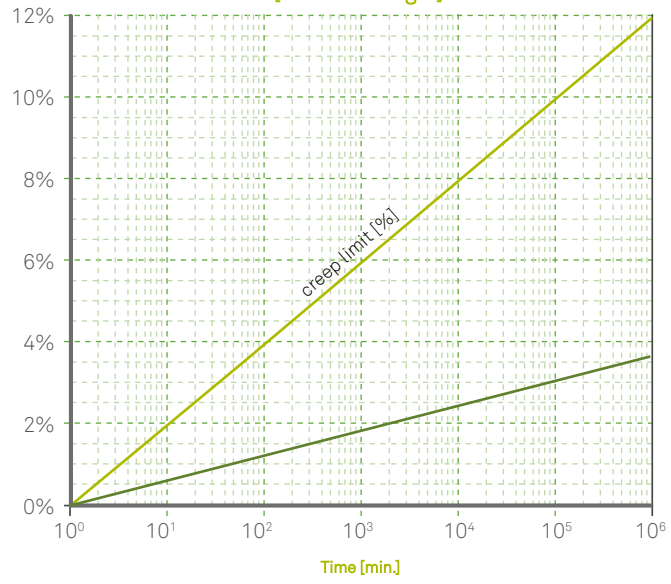
- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added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

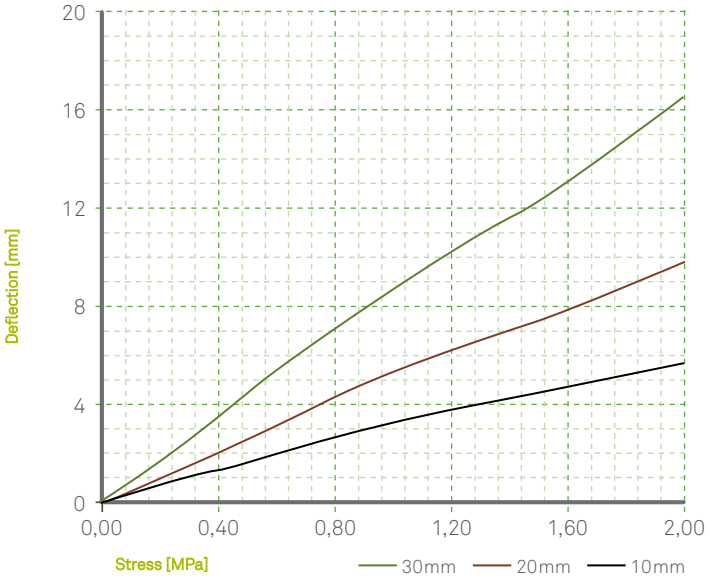
Vibration Isolation Level





Creep Deflection @ 1,5MPa [%of start height]





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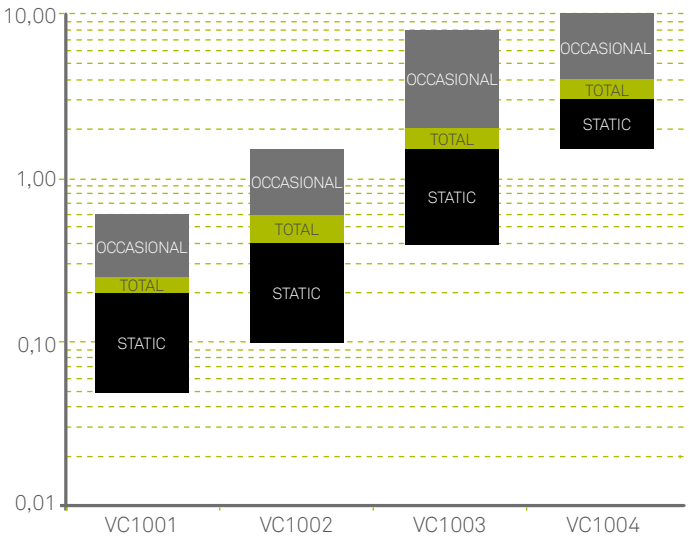
VC1004
MATERIAL DATA SHEET

MATERIAL DESCRIPTION & PROPERTIES

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 ressonance frequency and medium high load.

WORK LOAD RANGE [MPa]



LOAD RANGE

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

E-MODULE (@ stable load)

• **STATIC**	8,0 - 20,0 MPa (1160 - 2900 psi)
• **DYNAMIC**	16,0 - 50,0 MPa (2320- 7251 psi)

TEMPERATURE

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

FEATURES

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

Density (kg/m³) (1)	1125 (70 lb/ft³)
Shore hardness (Shore A) (2)	60 - 80
Elongation at break (%) (3)	> 100
Tensile strength (MPa) (3)	> 6,0 (<870 psi)
Compression set 50%/23°C/70h (%) (4)	< 15
Compressibility at 0,7 MPa (%) (5)	40 - 60
Recovery at 0,7MPa (%) (5)	> 85

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

EMPRESA CERTIFICADA apcer ISO 9001 ISO 14001 OHSAS 18001

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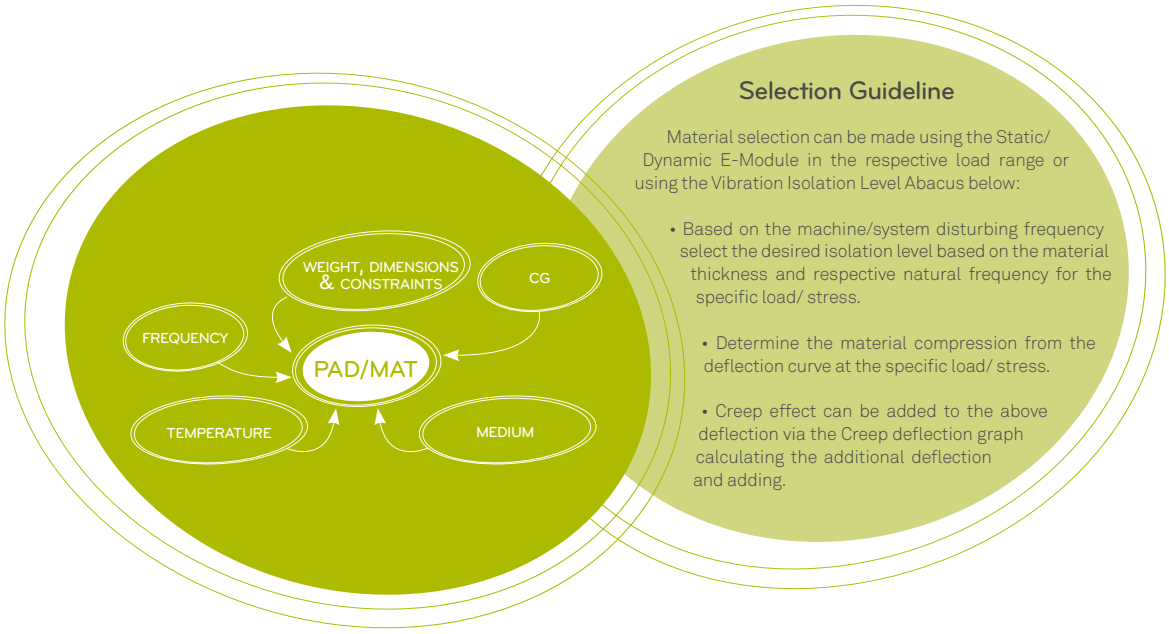
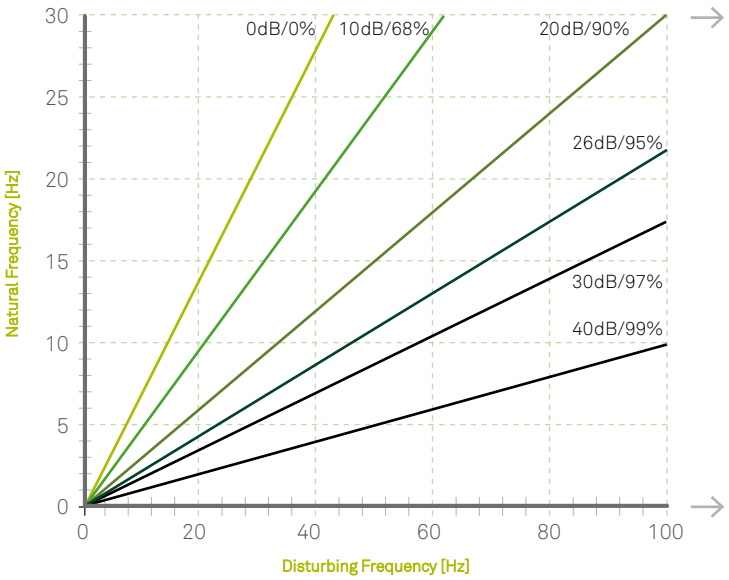


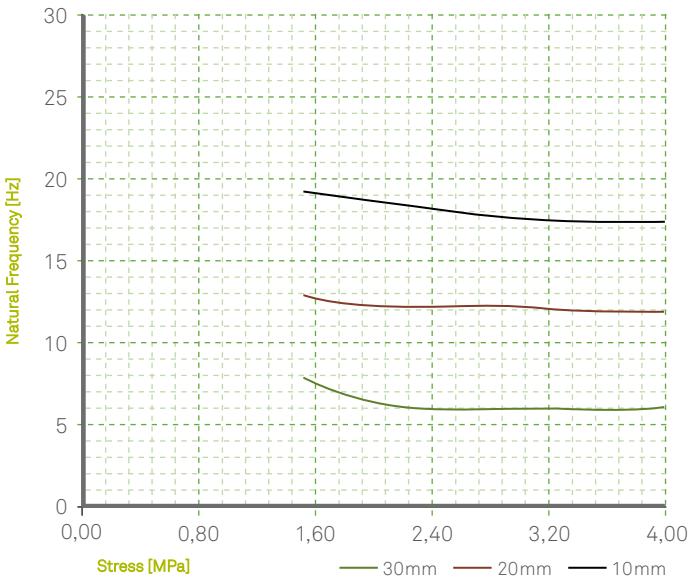
Selection Guideline

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

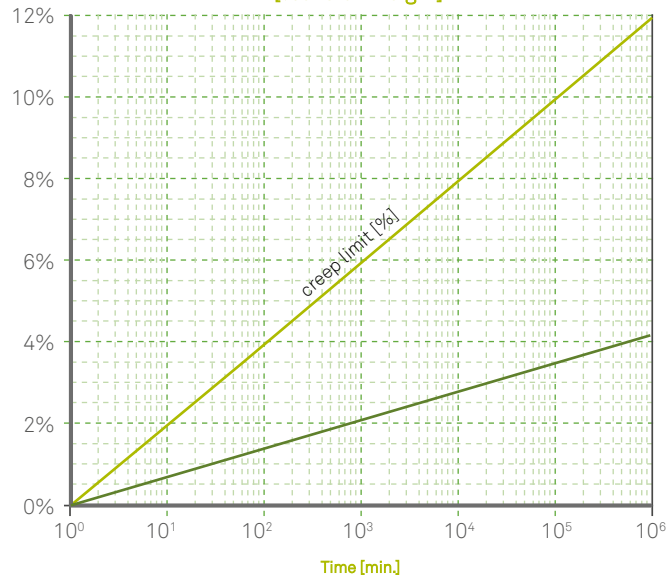
- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added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

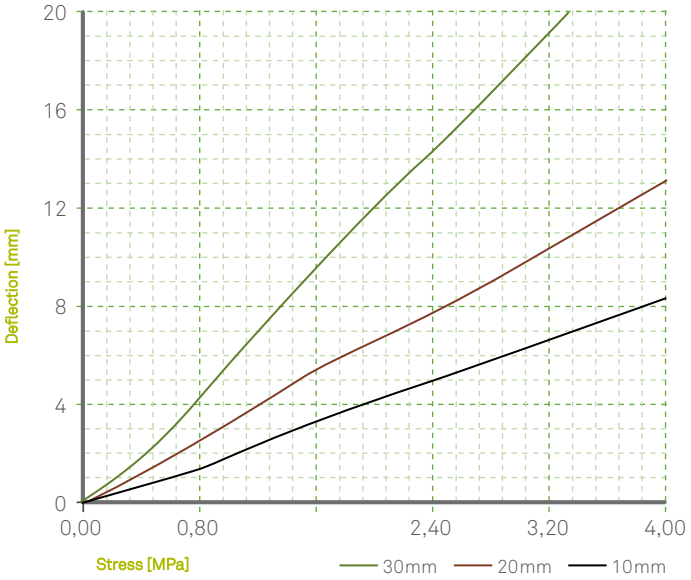
Vibration Isolation Level





Creep Deflection @ 3 MPa [%of start height]





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ACOUSTICORK VC-PAD-5015

MATERIAL DATA SHEET

MATERIAL DESCRIPTION & PROPERTIES

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)

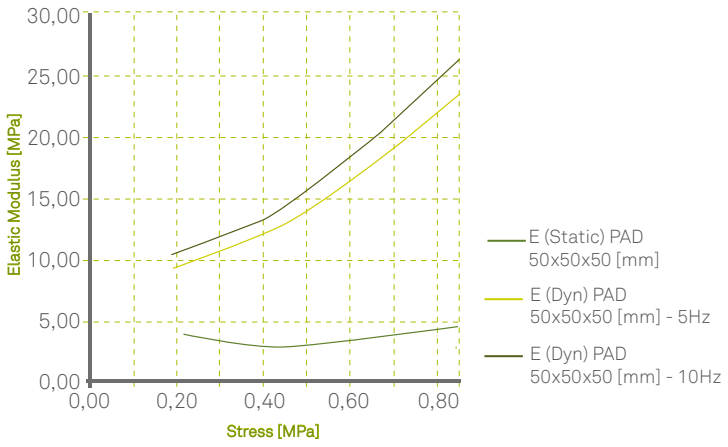
TEMPERATURE

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

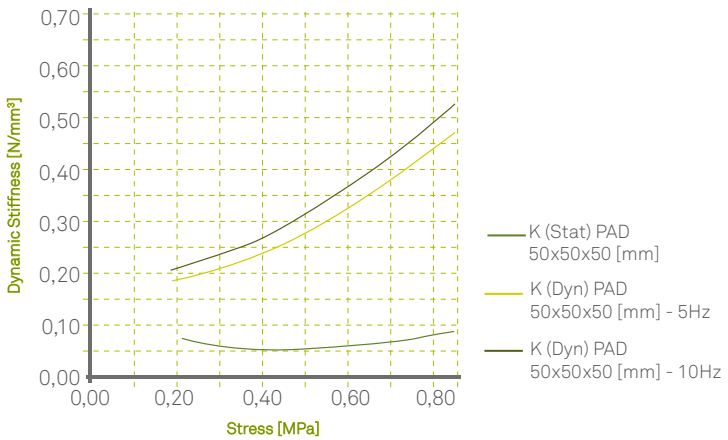
Density (kg/m³) (1)	600 (40 lb/ft³)
Shore hardness (Shore A) (2)	60 - 70
Elongation at break (%) (3)	> 15
Tensile strength (MPa) (3)	> 0,7 (>102 psi)
Compression set 50%/23°C/70h (%) (4)	< 15
Compressibility at 0,7 MPa (%) (5)	35 - 50
Recovery at 0,7MPa (%) (5)	> 70

(1) ASTM D297
(2) ASTM D2240
(3) ASTM F152
(4) DIN 53572
(5) ASTM F36

MODULUS OF ELASTICITY [MPa]



DYNAMIC STIFFNESS [N/MM³]



FEATURES

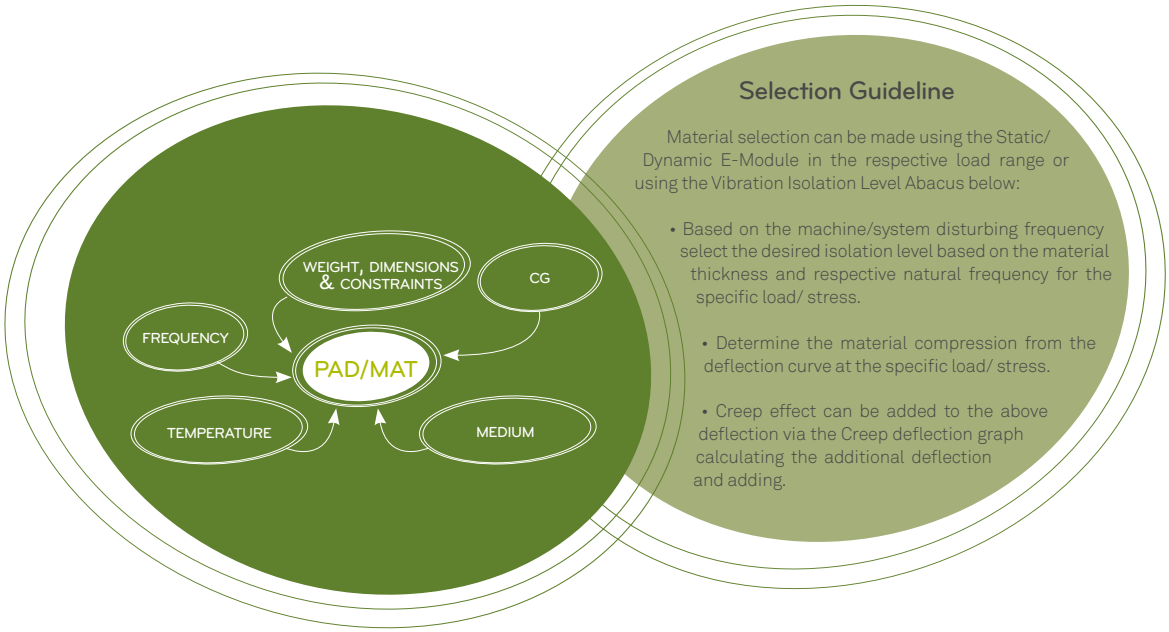
- Long term durability
- Low natural frequency / High vibration isolation
- Low water absorption
- Low creep rate

EMPRESA CERTIFICADA apcer ISO 9001 ISO 14001 OHSAS 18001

FSC www.fsc.org FSC® C022338 The mark of responsible forestry

PEFC

RoHS Compliant
AMORIM CORK COMPOSITES

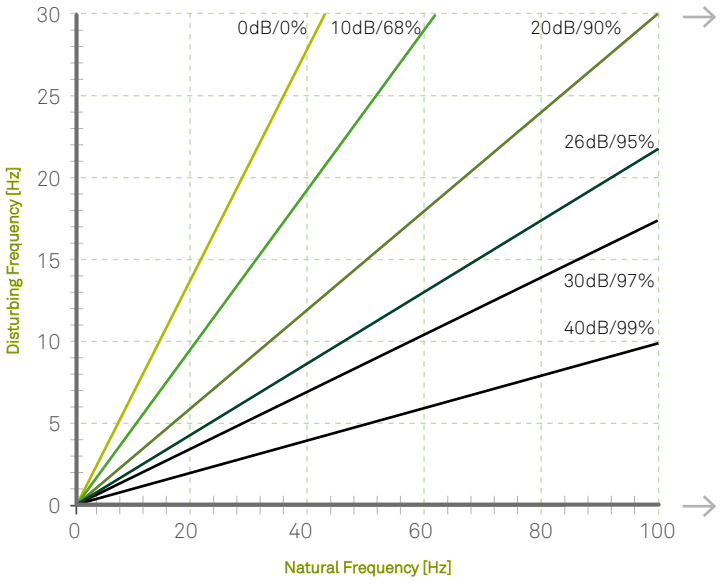


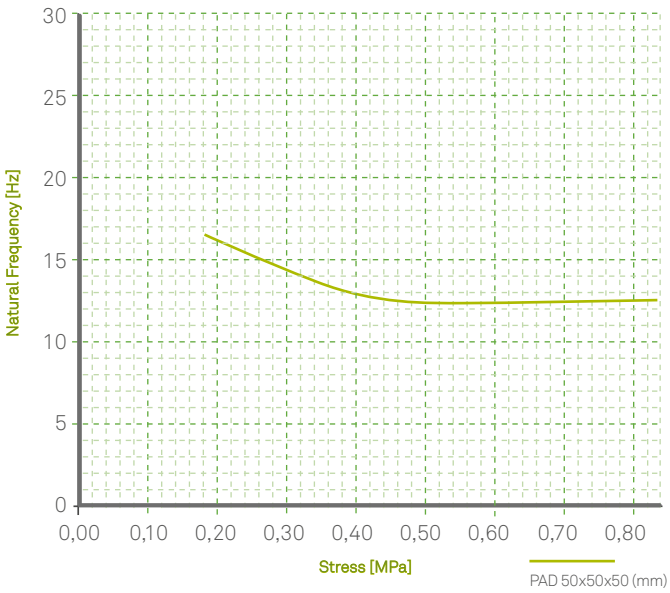
Selection Guideline

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

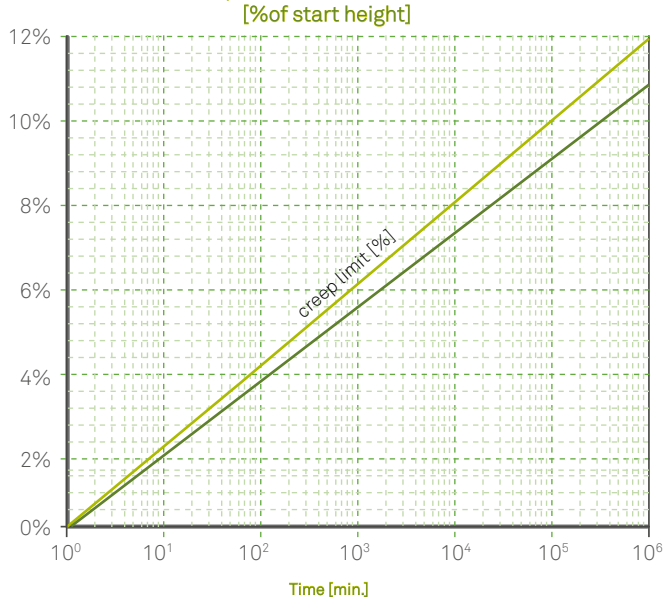
- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added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

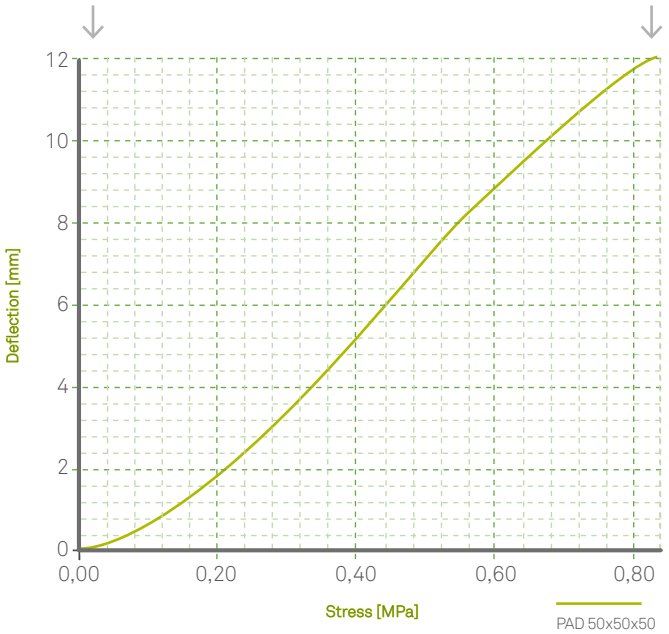
Vibration Isolation Level





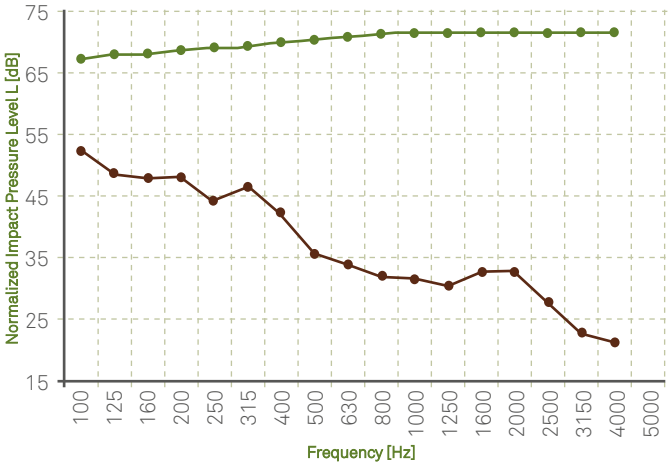
Creep Deflection @ 0.425 MPa [%of start height]





ACOUSTICAL RESULTS

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



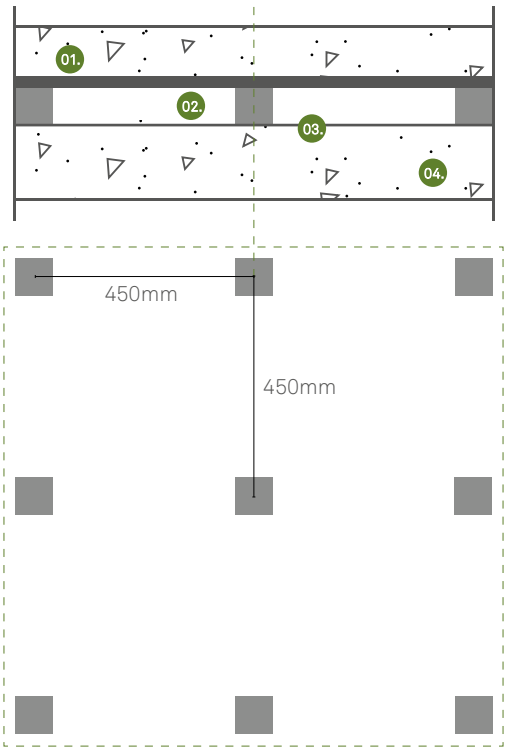
$L_{n,r}$ - Normalized impact sound pressure level of the reference floor with the floor covering under test;
$L_{n,r0}$ - Normalized impact sound pressure level of the Lab reference floor;
ΔL_w - Impact sound pressure level reduction index of the covering under test, on a normalized floor;

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

$L_{n,r0}$ (dB)

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

TEST APPARATUS [ΔLW & IIC]



01. Concrete floating screed with 100mm thickness

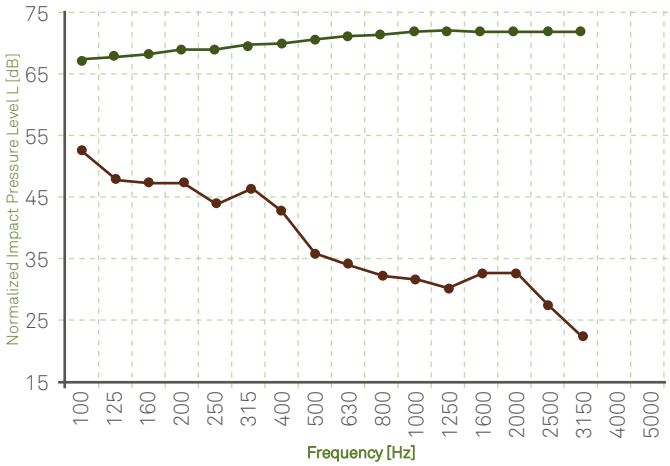
02. Blackboard with 16mm

03. Agglomerated cork and recycled rubber pad - VC-PAD-5015

04. Reinforced concrete slab of thickness 120mm

ACOUSTICAL RESULTS

Test procedure according to standards ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010. Normalized impact sound pressure level and IIC raiting determinated according to standards ASTM E492-09 and ASTM E989-06.



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) - 50x50x50mm

Dimensions	IIC_c
50x50x50 (mm)	67dB

INSTALLATION

01. Concrete floating screed
02. Polyethyene 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 > -5ºC / Room moisture content < 75%.

Subfloor
All subfloor work should be structurally sound, clear and level. The moisture content of the subfloor should not be more than 2.5% (CM) by weight measured on concrete subfloors.

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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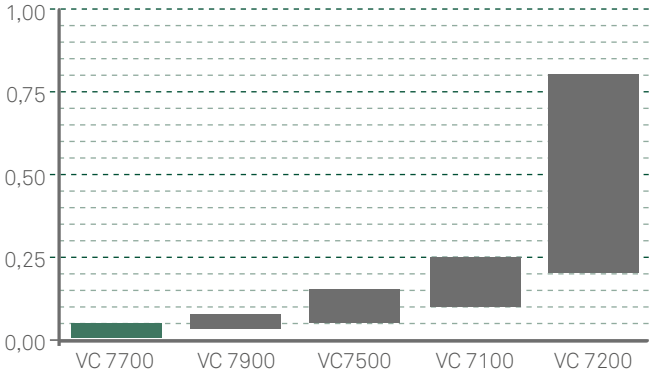
ACOUSTICORK

VC7700
MATERIAL DATA SHEET

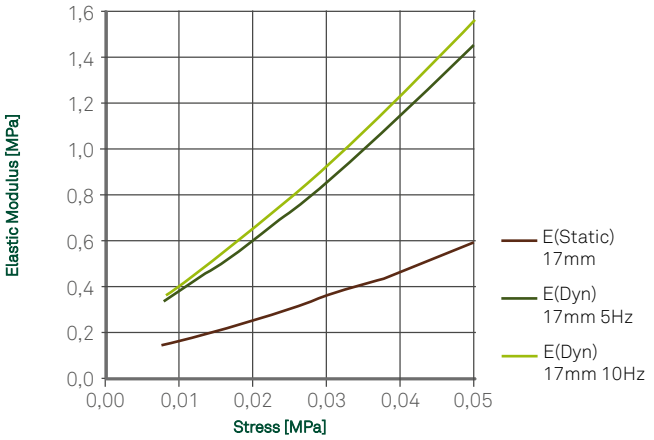
RECYCLED RUBBER

MATERIAL DESCRIPTION & PROPERTIES

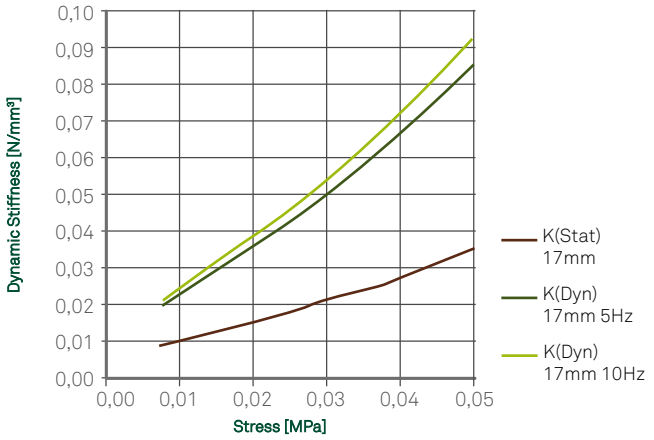
WORK LOAD RANGE [MPa]



ELASTIC MODULUS [MPA]



DYNAMIC STIFFNESS [N/mm³]



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** (1) 0,17-0,60 MPa (25- 87 psi)
- **DYNAMIC** (2) 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 (%) (1)	6,2
Tensile Strength (MPa) (2)	> 0,25 (36 psi)
Elongation at break (%) (2)	> 60
Tear- Resistance (N/mm)(3)	> 3,217
Flammability (4)	*B2

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

FEATURES

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

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FSC www.fsc.org FSC® C022338 The mark of responsible forestry

PEFC

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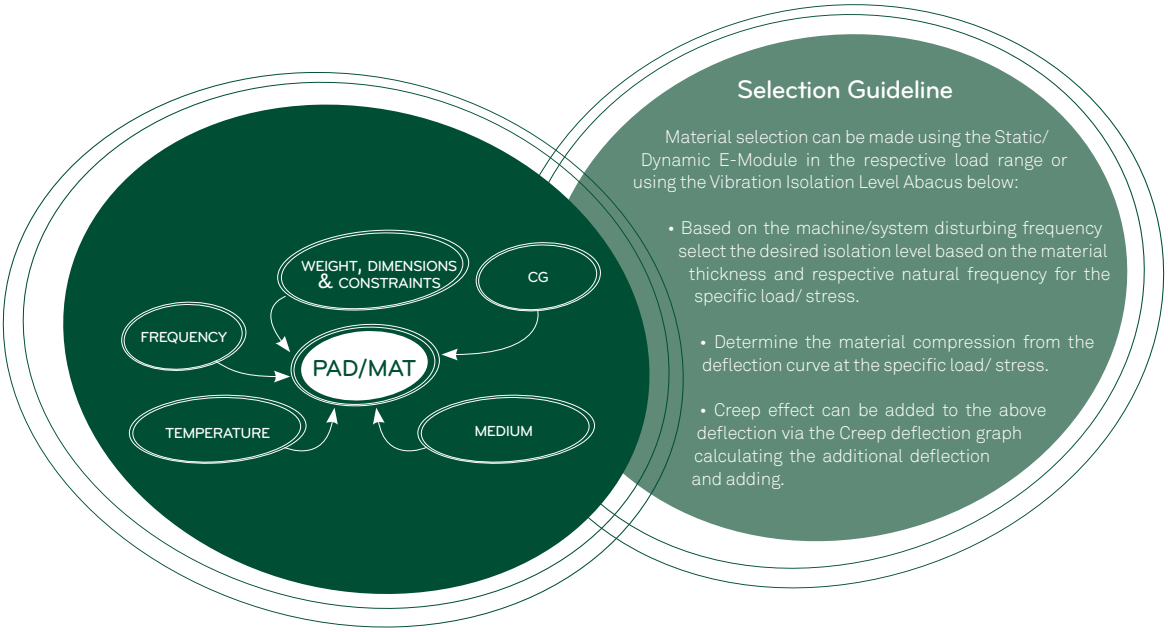
AMORIM CORK COMPOSITES

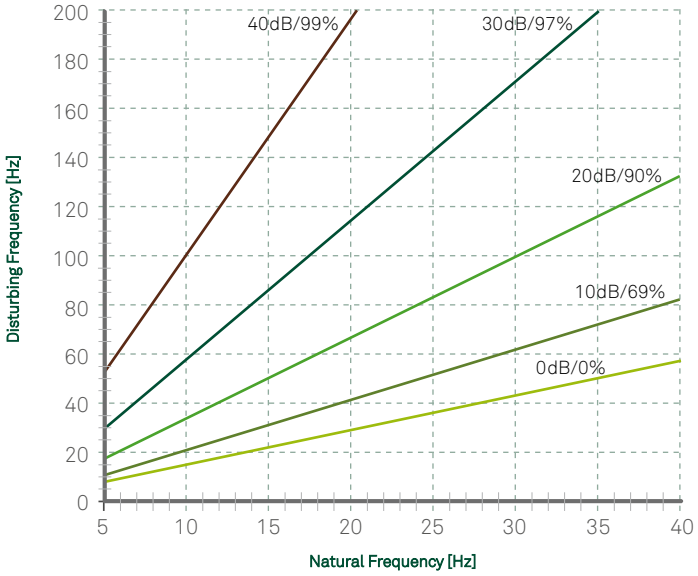


Selection Guideline

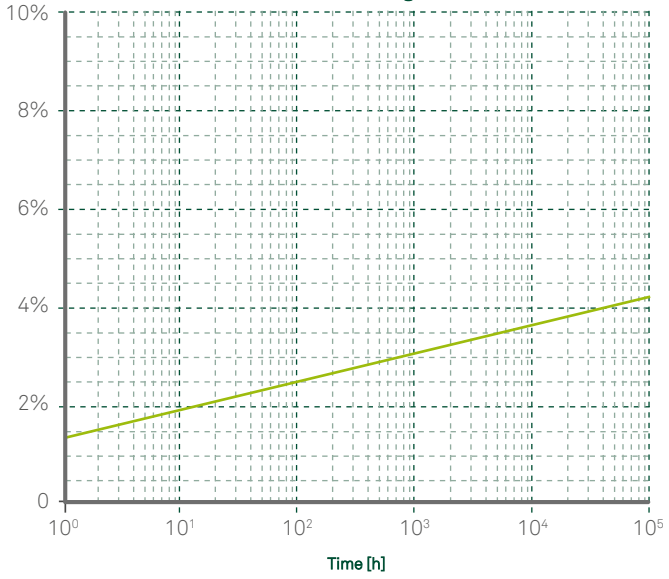
Material selection can be made using the Static/ Dynamic E-Module in the respective load range or using the Vibration Isolation Level Abacus below:

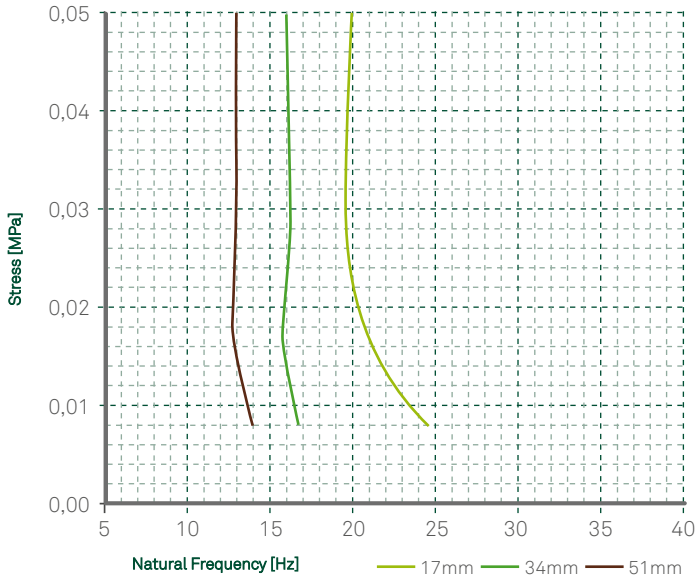
- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added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

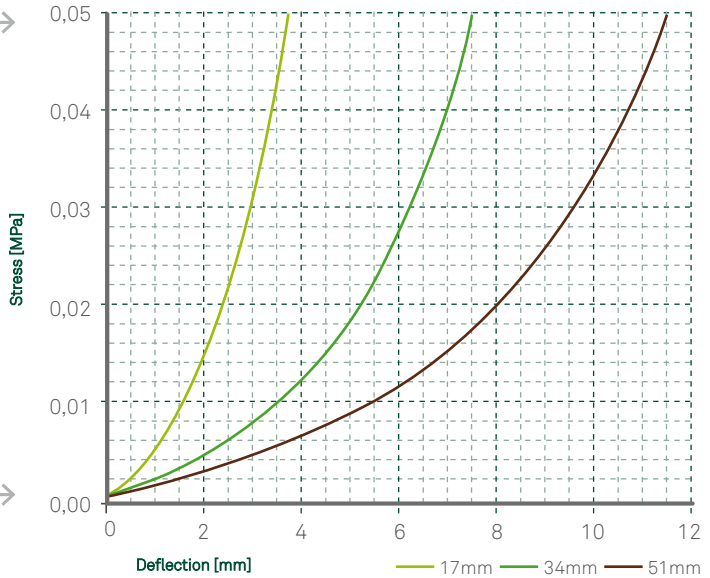
Vibration Isolation



Creep Deflection @ 0.125 MPa [% of start height]



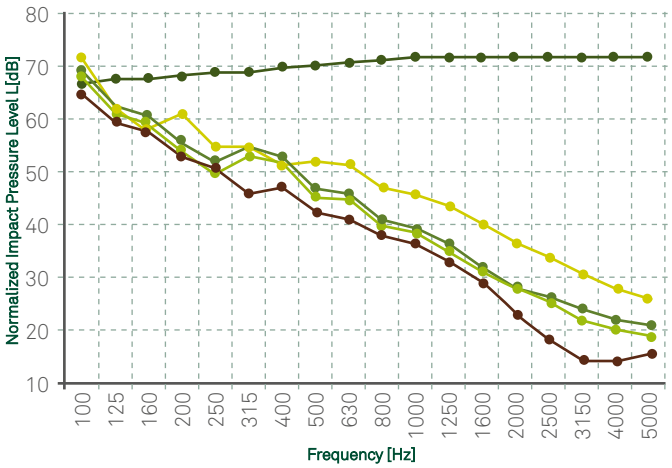




Note: 34mm and 51mm thickness achieved through stacking 17mm (profile) thickness layers.

ACOUSTICAL RESULTS

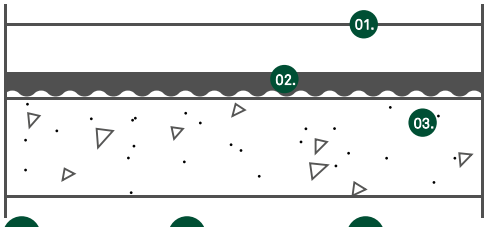
Test procedure according to standards ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010 and ISO 717-2:2013



$L_{n,r,0}$(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

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

TEST APPARATUS [ΔL_w & IIC]



01. Concrete floating screed with 70mm thickness

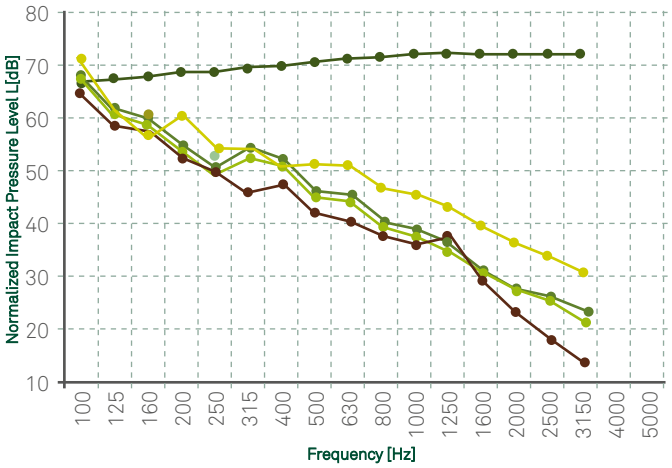
02. Agglomerated recycled rubber resilient layer with one face dimpled - VC 7700

03. Reinforced concrete slab of thickness 140mm

Ref. Test Report	Thickness	$L_{n,r,w}$ ($C_{I,r}$)	ΔL_w ($C_{I,\Delta}$)
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	17/9mm	49 (3) dB	29 (-14) dB

ACOUSTICAL RESULTS

Test procedure according to standards ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010. Normalized impact sound pressure level and IIC raiting determinated according to standards ASTM E492-09 and ASTM E989-06.

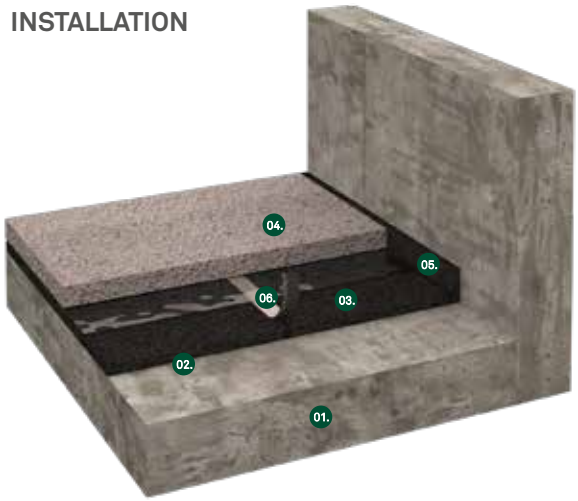


$L_{n,r,0}$(dB)
$L_{n,r}$ (dB) - 10/5mm
$L_{n,r}$ (dB) - 17/9mm
$L_{n,r}$ (dB) - 8/4mm
$L_{n,r}$ (dB) - 12/6mm

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

Thickness	IIC_c
8/4 mm	48 dB
10/5 mm	50 dB
12/6 mm	52 dB
17/9 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 > -5ºC / Room moisture content < 75%.

Subfloor
All subfloor work should be structurally sound, clear and level. The moisture content of the subfloor should not be more than 2.5% (CM) by weight measured on concrete subfloors.

Perimeter Insulation Barrier
Install a perimeter insulation barrier vertically around the entire perimeter of the room with width equal to that of the floor build up. This is highly recommended in order to avoid lateral propagation of impact noise. The barrier must also be applied in the perimeter of pipes, ducts or any other component protruding from the floor. Spot adhere the strips to the wall using acrylic glue or a bead of silicone sealant.

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 desined size to fit the installation. Apply directly over the subfloor. Always ensure that material is installed to fit the application avoiding the creation of waves in the material.

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.

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ACOUSTICORK

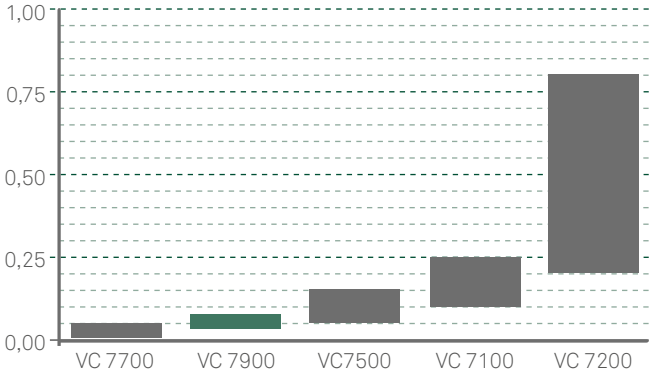
VC7900

MATERIAL DATA SHEET

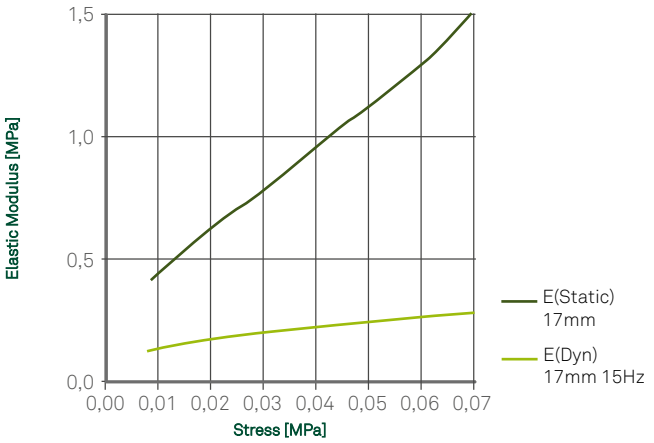
RECYCLED RUBBER

MATERIAL DESCRIPTION & PROPERTIES

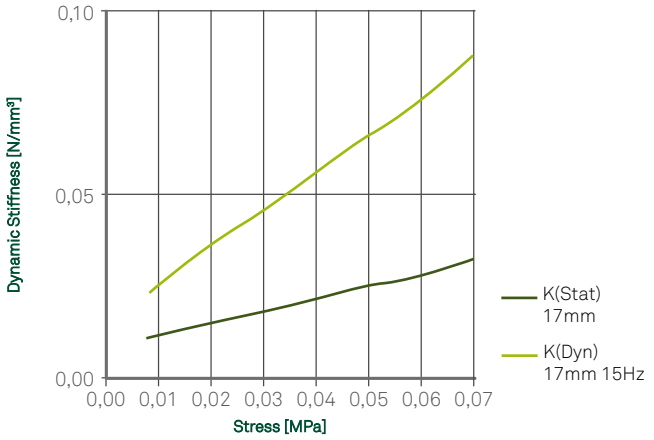
WORK LOAD RANGE [MPa]



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** (1) 0,04-0,25 MPa (6 - 36 psi psi)
- **DYNAMIC** (2) 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 (%) (1)	0,068
Tensile Strength (MPa) (2)	>0,35 (51 psi)
Elongation at break (%) (2)	>75
Tear- Resistance (N/mm)(3)	>6,497
Flammability(4)	*B2

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

FEATURES

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

EMPRESA CERTIFICADA apcer ISO 9001 ISO 14001 OHSAS 18001

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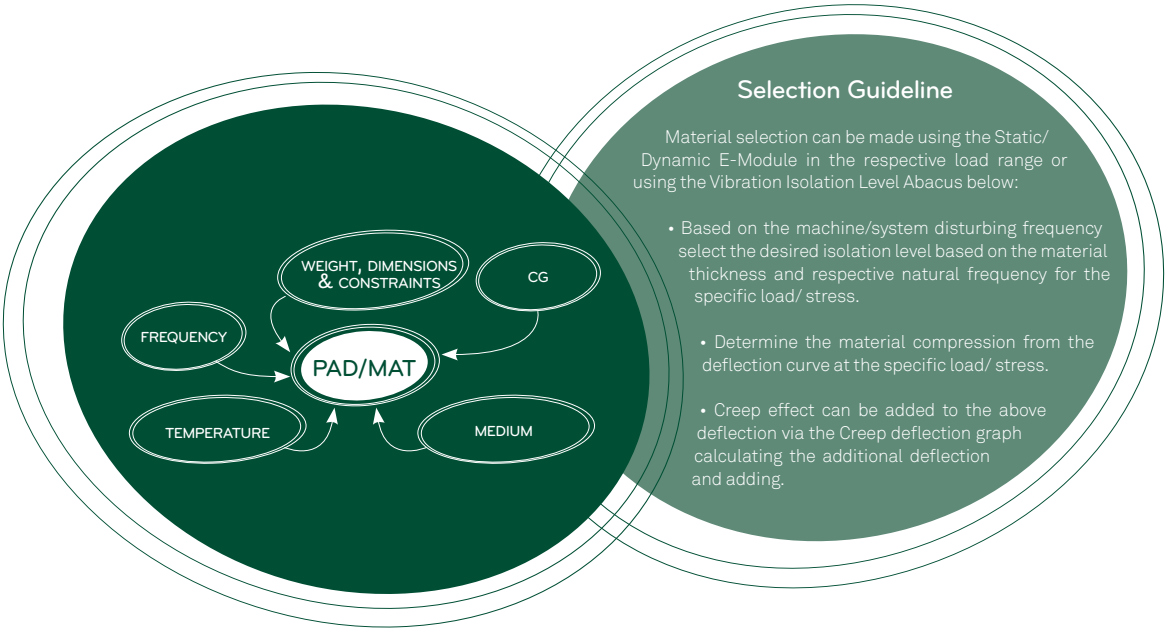
PEFC

RoHS Compliant
AMORIM CORK COMPOSITES

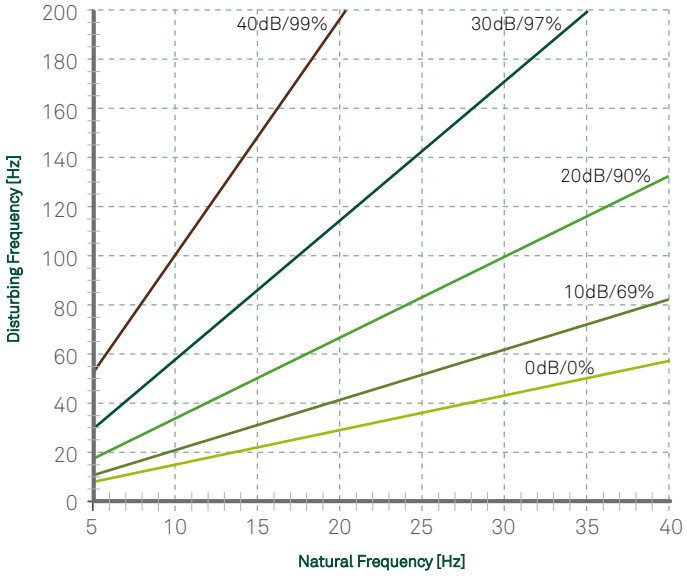


Selection Guideline

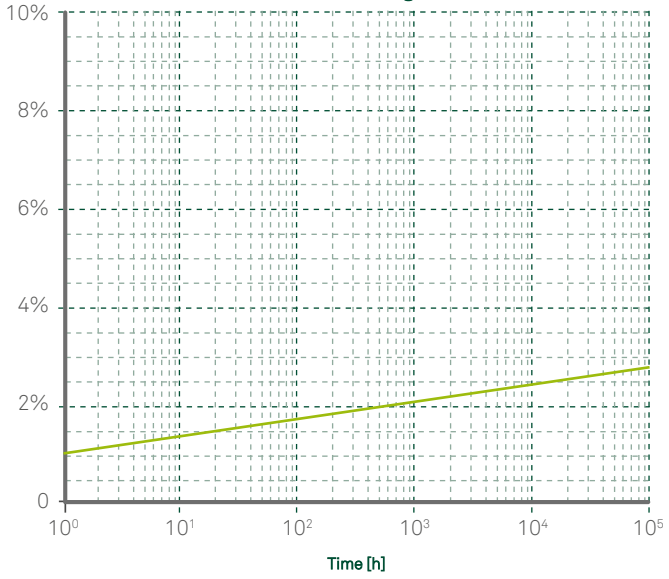
Material selection can be made using the Static/ Dynamic E-Module in the respective load range or using the Vibration Isolation Level Abacus below:

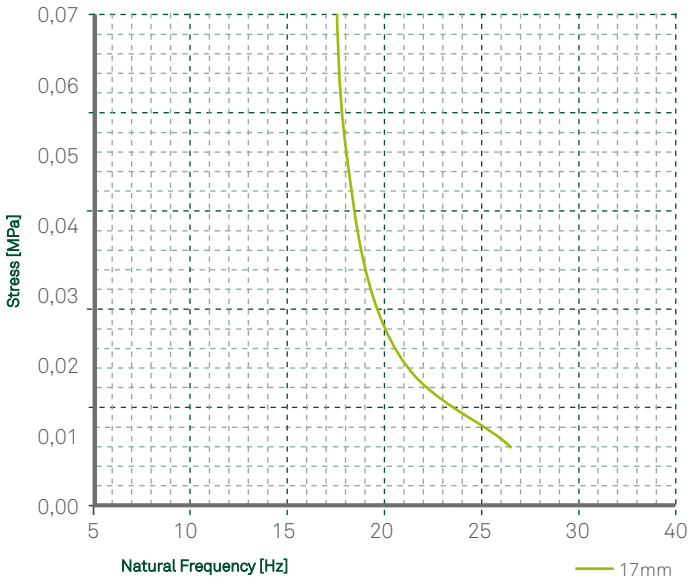
- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added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

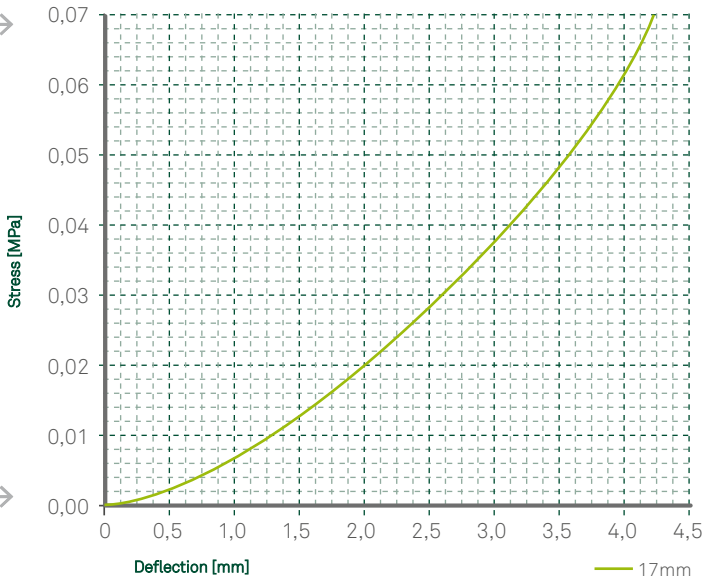
Vibration Isolation



Creep Deflection @ 0.035 MPa [% of start height]

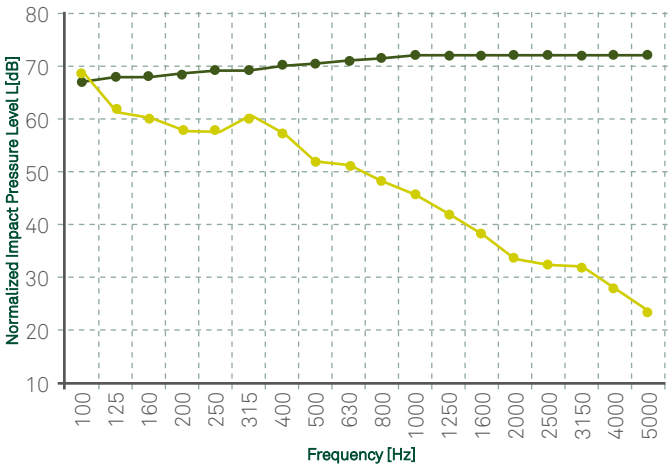






ACOUSTICAL RESULTS

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

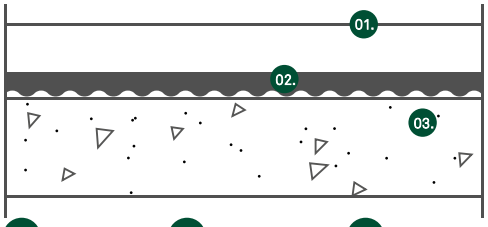


$L_{n,r,0}$(dB)

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

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

TEST APPARATUS [ΔL_w & IIC]



01. Concrete floating screed with 70mm thickness

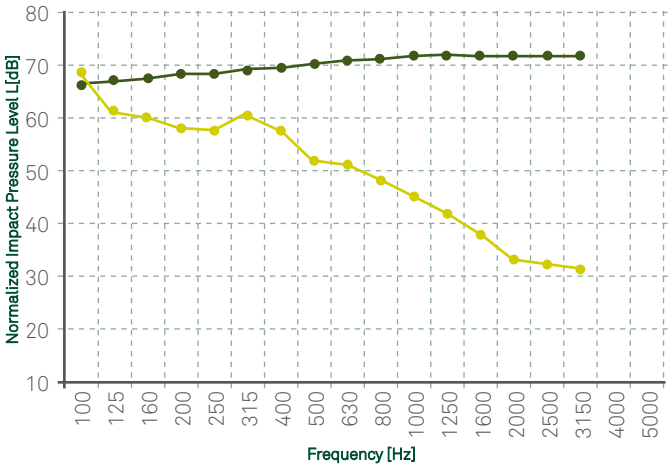
02. Agglomerated recycled rubber resilient layer with one face dimpled - VC 7900

03. Reinforced concrete slab of thickness 140mm

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

ACOUSTICAL RESULTS

Test procedure according to standards ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010. Normalized impact sound pressure level and IIC raiting determinated according to standards ASTM E492-09 and ASTM E989-06.



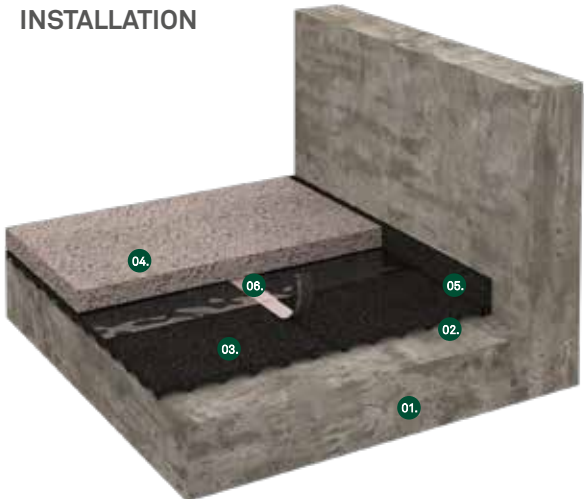
L_{ref} (dB)

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

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

Thickness	IIC_c
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 > -5ºC / Room moisture content < 75%.

Subfloor
All subfloor work should be structurally sound, clear and level. The moisture content of the subfloor should not be more than 2.5% (CM) by weight measured on concrete subfloors.

Perimeter Insulation Barrier
Install a perimeter insulation barrier vertically around the entire perimeter of the room with width equal to that of the floor build up. This is highly recommended in order to avoid lateral propagation of impact noise. The barrier must also be applied in the perimeter of pipes, ducts or any other component protruding from the floor. Spot adhere the strips to the wall using acrylic glue or a bead of silicone sealant.

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 desined size to fit the installation. Apply directly over the subfloor. Always ensure that material is installed to fit the application avoiding the creation of waves in the material. 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.

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.

ACOUSTICORK

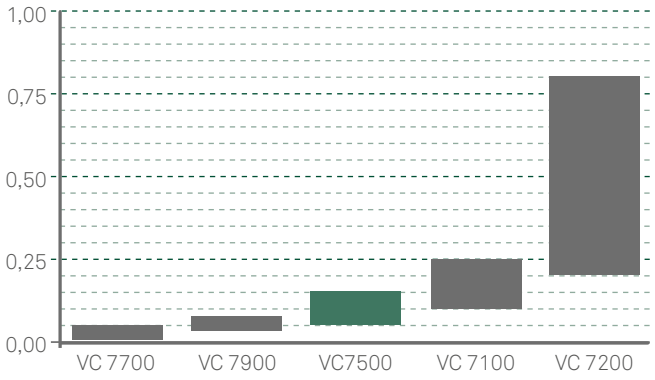
VC7500

MATERIAL DATA SHEET

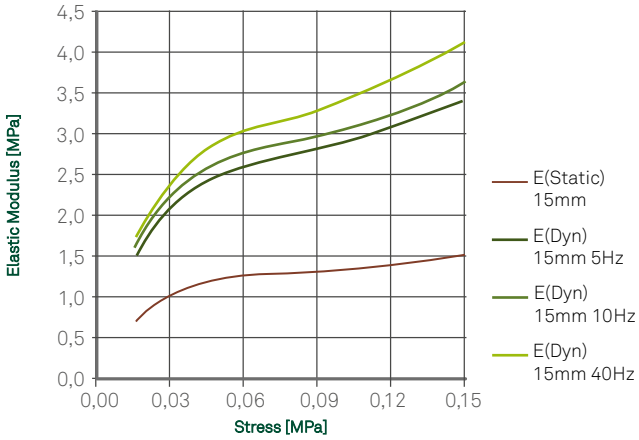
RECYCLED RUBBER

MATERIAL DESCRIPTION & PROPERTIES

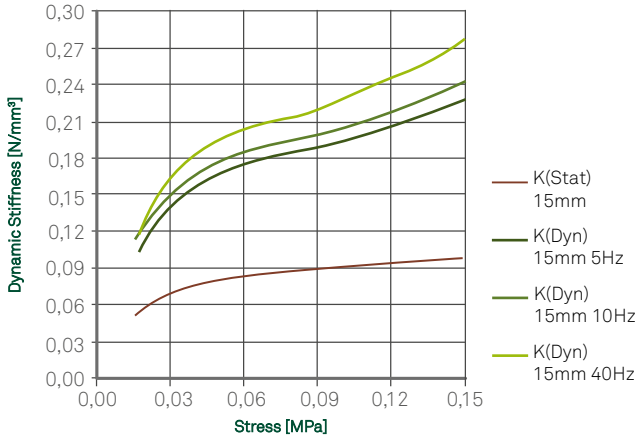
WORK LOAD RANGE [MPa]



ELASTIC MODULUS [MPa]



DYNAMIC STIFFNESS [N/mm³]



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** (1) 1,20-1,50 MPa (174 - 218 psi)
- **DYNAMIC** (2) 2,30-4,30 MPa (333 - 624psi)

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

Compression Set (%) (1)	1,6
Tensile Strength (MPa) (2)	>0,25 (36 psi)
Elongation at break (%) (2)	> 60
Tear- Resistance (N/mm) (3)	> 3,5
Flammability (4)	*B2

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

FEATURES

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

EMPRESA CERTIFICADA apcer ISO 9001 ISO 14001 OHSAS 18001

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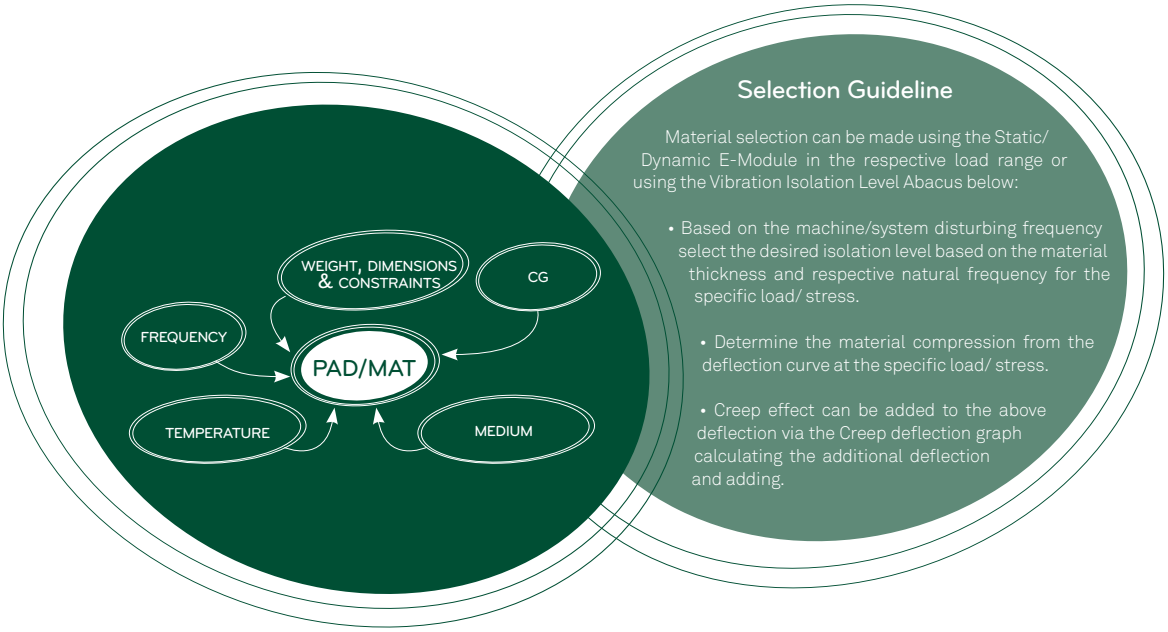
PEFC

RoHS Compliant
AMORIM CORK COMPOSITES

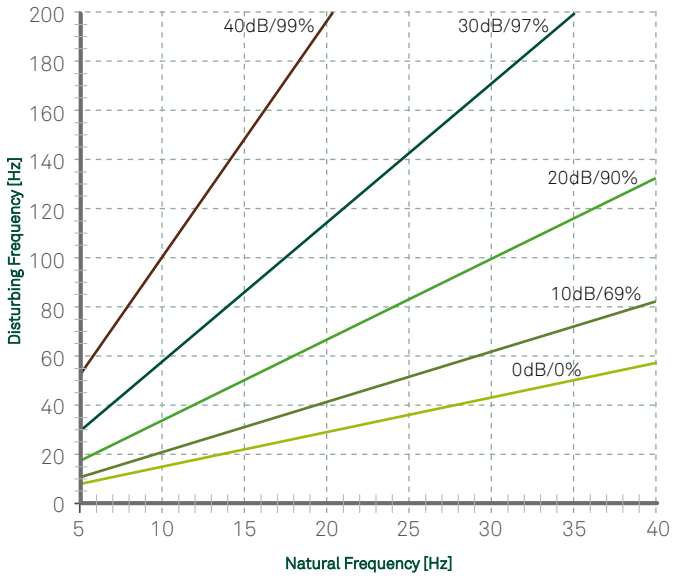


Selection Guideline

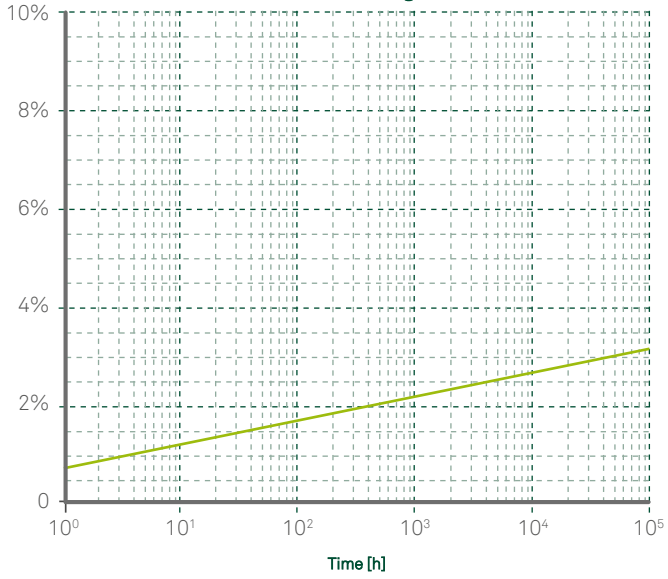
Material selection can be made using the Static/ Dynamic E-Module in the respective load range or using the Vibration Isolation Level Abacus below:

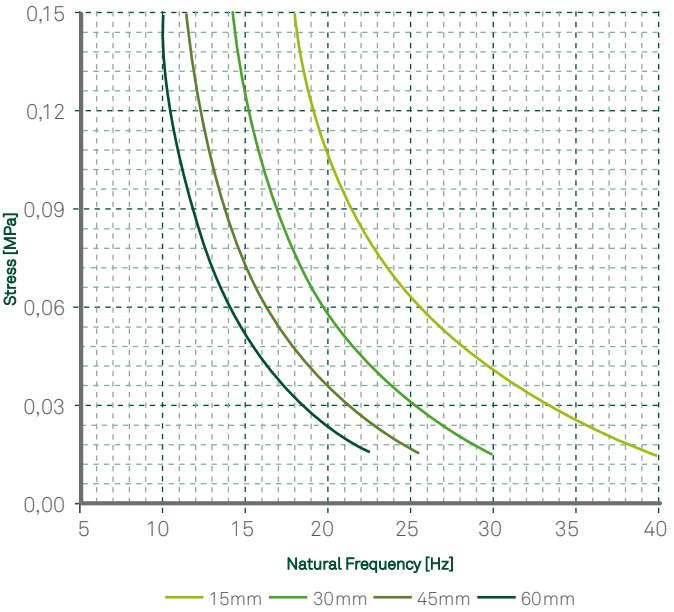
- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added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

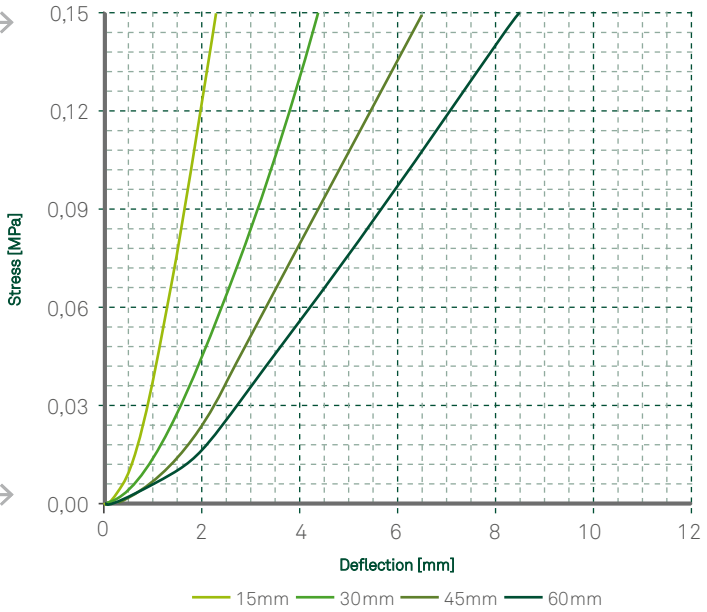
Vibration Isolation



Creep Deflection @ 0.125 MPa [% of start height]

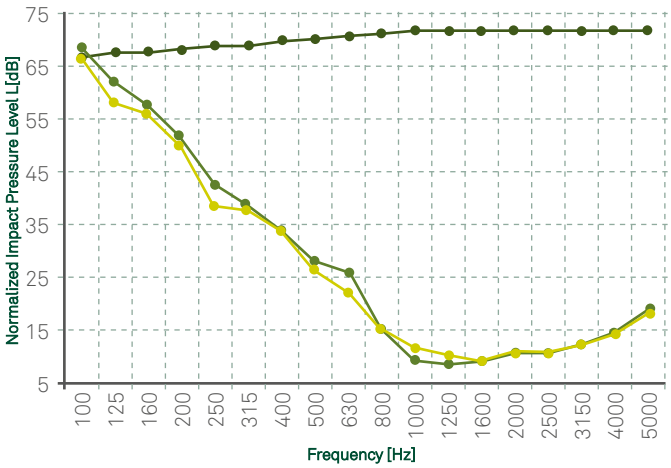






Note: 30mm, 45mm and 60mm thickness achieved through stacking 15mm (flat) thickness layers.

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

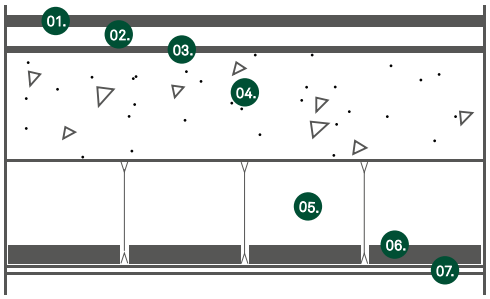


$L_{n,r}$ - Normalized impact sound pressure level of the reference floor with the floor covering under test;
$L_{n,r,0}$ - Normalized impact sound pressure level of the Lab reference floor;
ΔL_w - Impact sound pressure level reduction index of the covering under test, on a normalized floor;

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

*Glued Down Wood

TEST APPARATUS [ΔL_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.

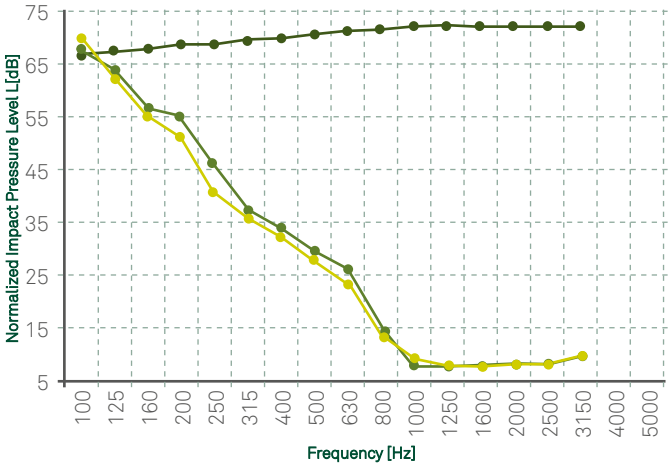
05. Air gap with 150mm.

06. Mineral wool with 50mm thickness and low density.

07. Gypsum boards with 12mm thickness.

Ref. Test Report	Thickness	Flooring	$L_{n,r,w}$ ($C_{I,r}$)	ΔL_w ($C_{I,\Delta}$)
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 standards ASTM E2179-03; ASTM E492-04 and ASTM E989-89



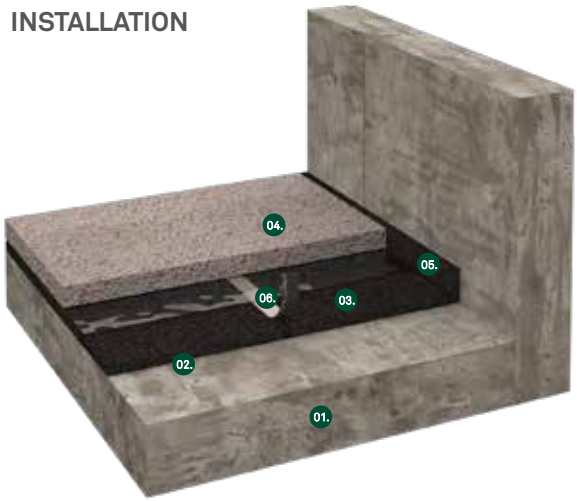
L_{ref} - Normalized impact sound pressure level of the reference floor with the floor covering under test;
$L_{ref,c}$ - Normalized impact sound pressure level of the Lab reference floor;

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

*Glued Down Wood

Ref. Test Report	Thickness	Flooring	IIC_c
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 > -5ºC / Room moisture content < 75%.

Subfloor

All subfloor work should be structurally sound, clear and level. The moisture content of the subfloor should not be more than 2.5% (CM) by weight measured on concrete subfloors.

Perimeter Insulation Barrier

Install a perimeter insulation barrier vertically around the entire perimeter of the room with width equal to that of the floor build up. This is highly recommended in order to avoid lateral propagation of impact noise. The barrier must also be applied in the perimeter of pipes, ducts or any other component protruding from the floor. Spot adhere the strips to the wall using acrylic glue or a bead of silicone sealant.

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 desined size to fit the installation. Apply directly over the subfloor. Always ensure that material is installed to fit the application avoiding the creation of waves in the material.

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.

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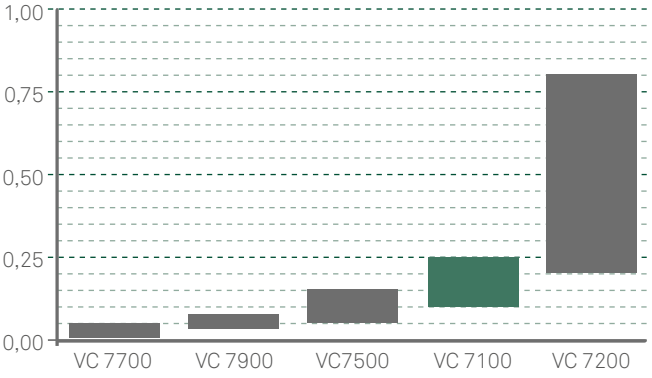
ACOUSTICORK

VC7100
MATERIAL DATA SHEET

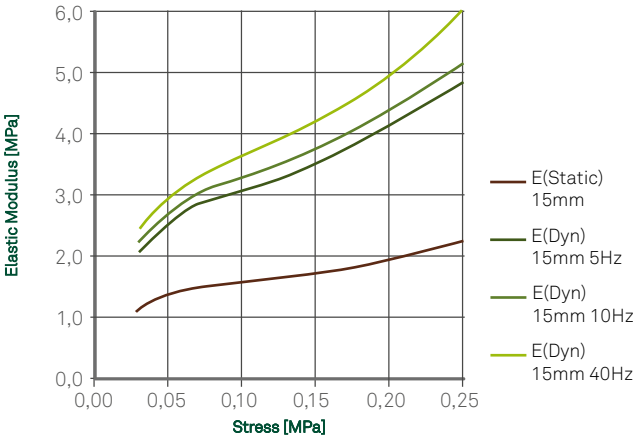
RECYCLED RUBBER

MATERIAL DESCRIPTION & PROPERTIES

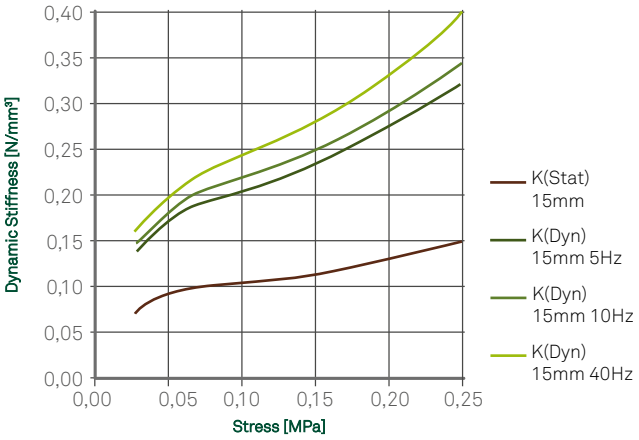
WORK LOAD RANGE [MPa]



ELASTIC MODULUS [MPa]



DYNAMIC STIFFNESS [N/mm³]



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** (1) 1,50-2,10 MPa (218 - 305 psi)
- **DYNAMIC** (2) 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 (%) (1)	4,1
Tensile Strength (MPa) (2)	> 0,35 (51 psi)
Elongation at break (%) (2)	> 75
Tear- Resistance (N/mm) (3)	> 6,5
Flammability (4)	*B2

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

FEATURES

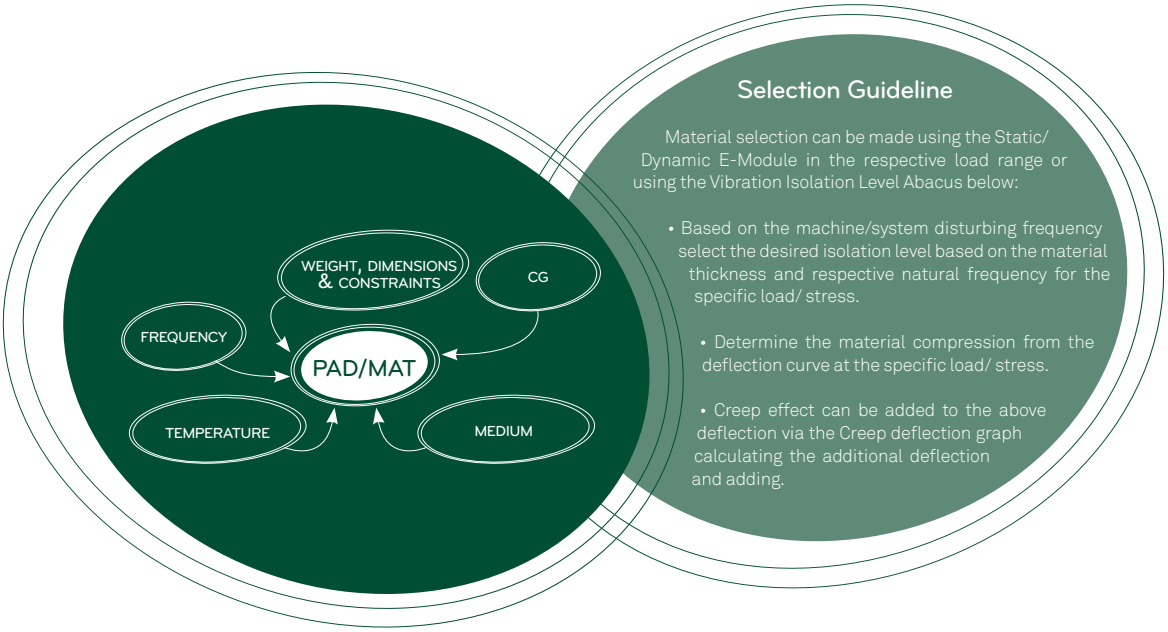
- Revalorised product
- Supplied in rolls, sheets or strips
- Available in a max. width of 1250mm and up to a length of 10m.

EMPRESA CERTIFICADA apcer ISO 9001 ISO 14001 OHSAS 18001

FSC www.fsc.org FSC® C022338 The mark of responsible forestry

PEFC

RoHS Compliant
AMORIM CORK COMPOSITES

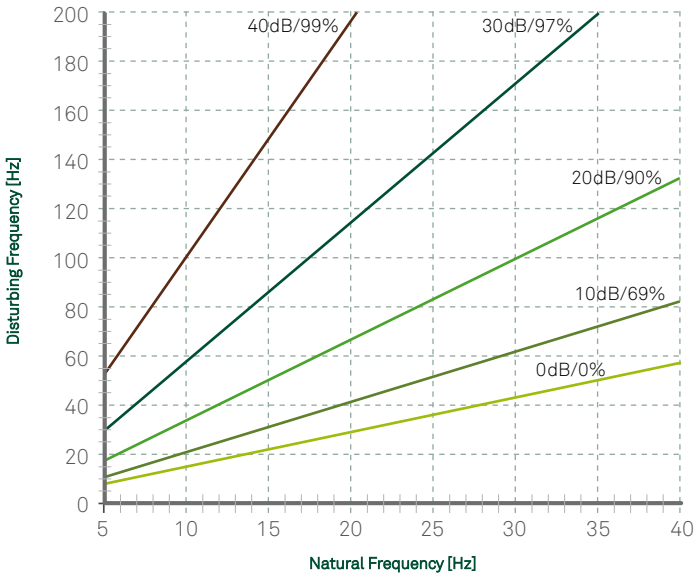


Selection Guideline

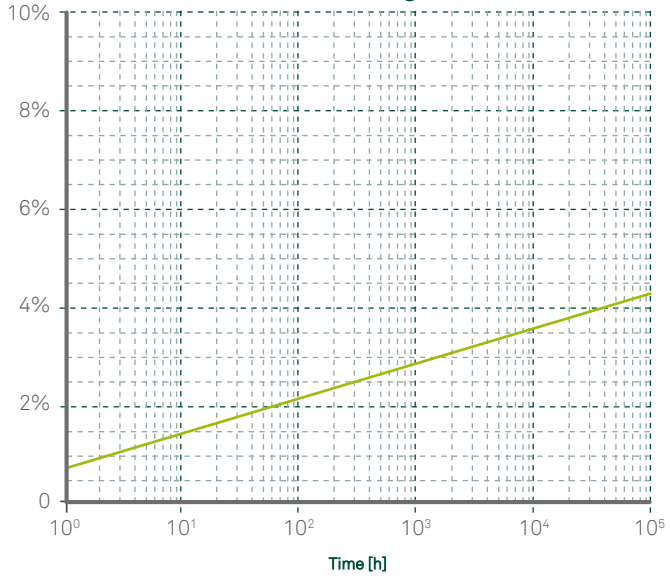
Material selection can be made using the Static/ Dynamic E-Module in the respective load range or using the Vibration Isolation Level Abacus below:

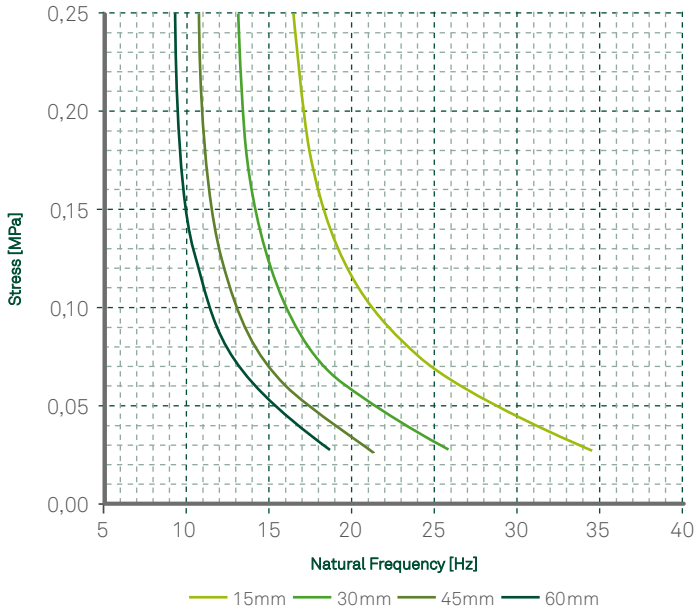
- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added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

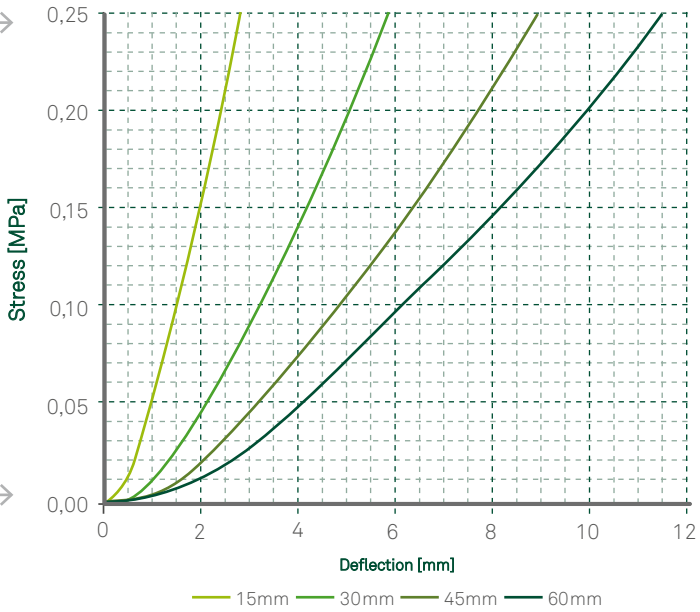
Vibration Isolation



Creep Deflection @ 0.125 MPa [% of start height]



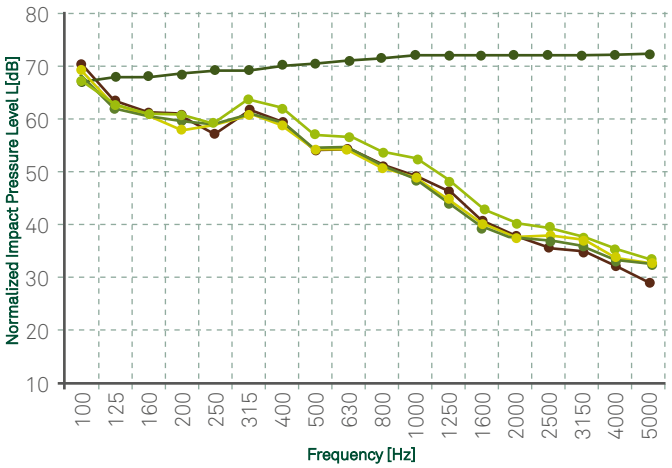




Note: 30mm, 45mm and 60mm thickness achieved through stacking 15mm (flat) thickness layers.

ACOUSTICAL RESULTS

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

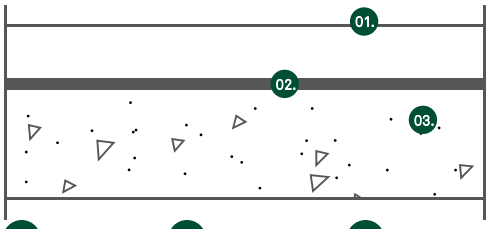


$L_{n,r,0}$(dB) — $L_{n,r}$ (dB) - 6mm — $L_{n,r}$ (dB) - 10mm

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

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

TEST APPARATUS [ΔL_w & IIC]



01. Concrete floating screed with 70mm thickness

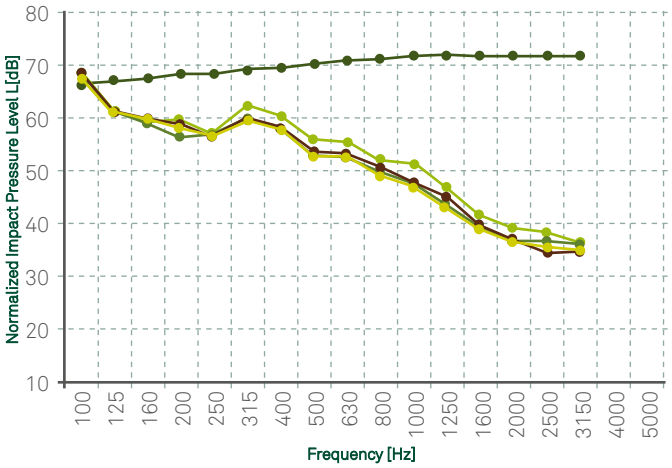
02. Agglomerated recycled rubber resilient layer - VC 7100

03. Reinforced concrete slab of thickness 140mm

Ref. Test Report	Thickness	$L_{n,r,w}$ ($C_{I,r}$)	ΔL_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 standards ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010.
Normalized impact sound pressure level and IIC raiting determinated according to standards ASTM E492-09 and ASTM E989-06.



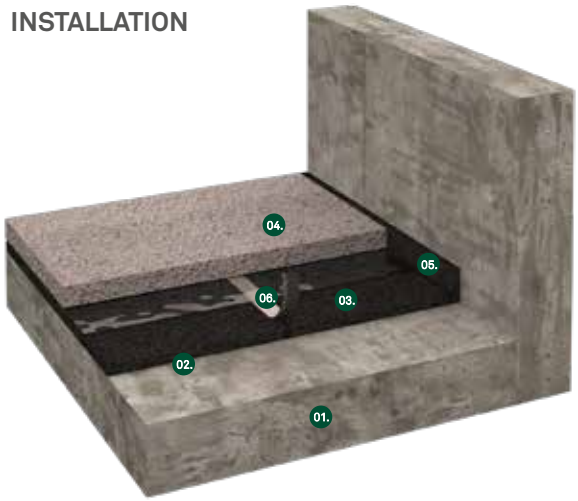
$L_{n,r,0}$(dB) — $L_{n,r}$ (dB) - 6mm — $L_{n,r}$ (dB) - 10mm

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

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

Thickness	IIC_c
4 mm	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 > -5ºC / Room moisture content < 75%.

Subfloor
All subfloor work should be structurally sound, clear and level. The moisture content of the subfloor should not be more than 2.5% (CM) by weight measured on concrete subfloors.

Perimeter Insulation Barrier
Install a perimeter insulation barrier vertically around the entire perimeter of the room with width equal to that of the floor build up. This is highly recommended in order to avoid lateral propagation of impact noise. The barrier must also be applied in the perimeter of pipes, ducts or any other component protruding from the floor. Spot adhere the strips to the wall using acrylic glue or a bead of silicone sealant.

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 desined size to fit the installation. Apply directly over the subfloor. Always ensure that material is installed to fit the application avoiding the creation of waves in the material.

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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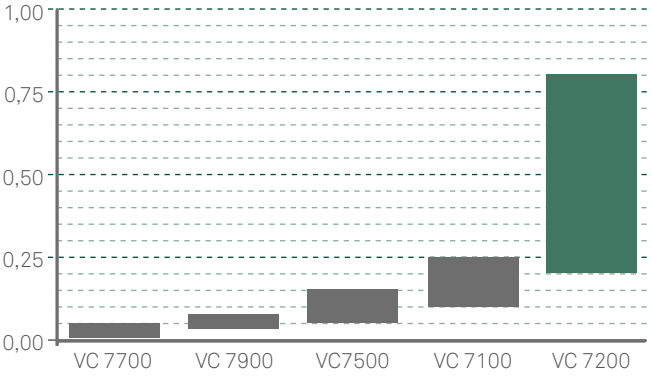
ACOUSTICORK

VC7200
MATERIAL DATA SHEET

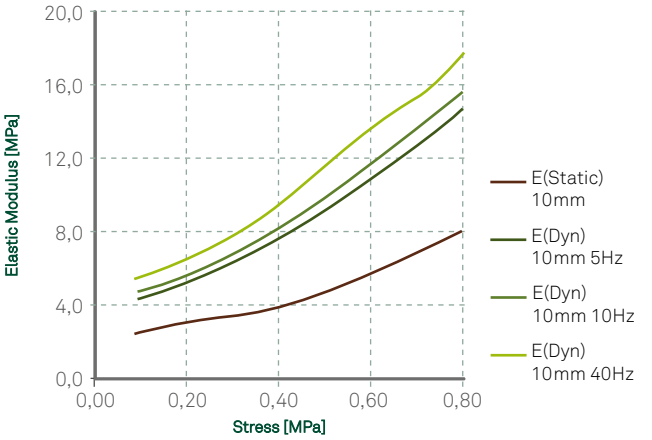
RECYCLED RUBBER

MATERIAL DESCRIPTION & PROPERTIES

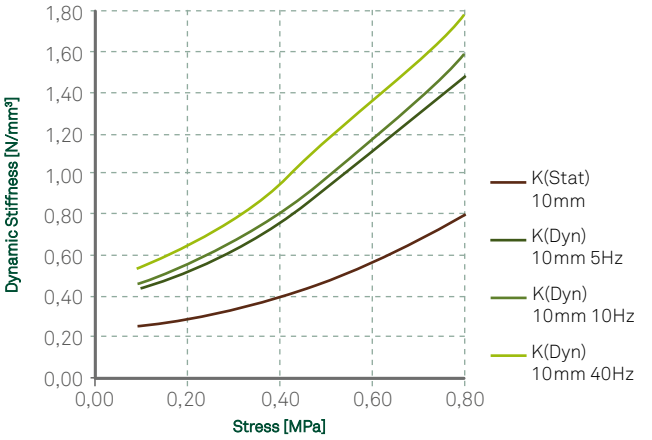
WORK LOAD RANGE [MPa]



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** (1) 3,00-8,00 MPa (435 - 1160 psi)
- **DYNAMIC** (2) 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 (%) (1)	4,3
Tensile Strength (MPa) (2)	> 0,5 (73 psi)
Elongation at break (%) (2)	> 75
Tear- Resistance (N/mm) (3)	> 5,6
Flammability (4)	*B2

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

FEATURES

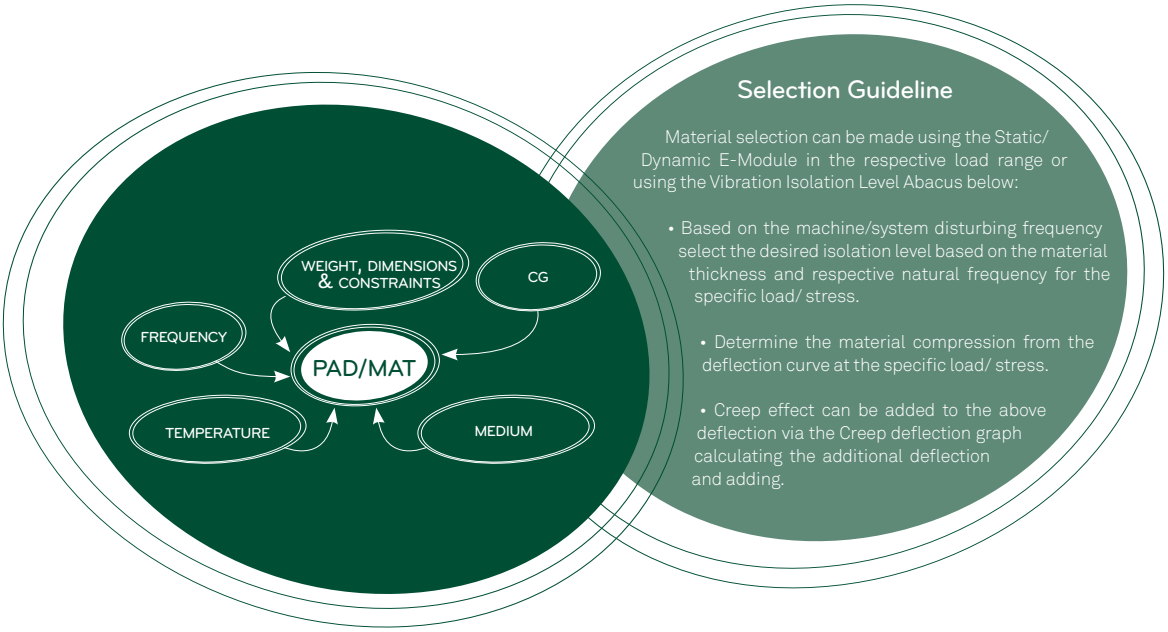
- Revalorised product
- Supplied in rolls, sheets or strips
- Available in a max. width of 1250mm and up to a length of 10m.

EMPRESA CERTIFICADA apcer ISO 9001 ISO 14001 OHSAS 18001

FSC www.fsc.org FSC® C022338 The mark of responsible forestry

PEFC

RoHS Compliant
AMORIM CORK COMPOSITES

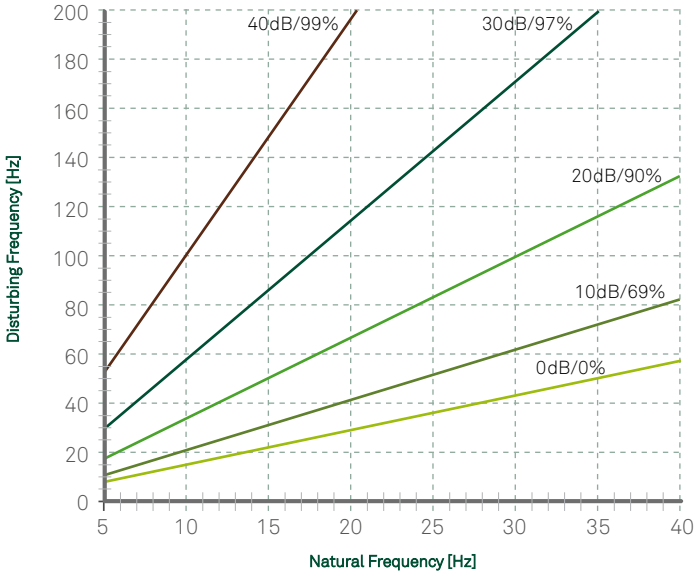


Selection Guideline

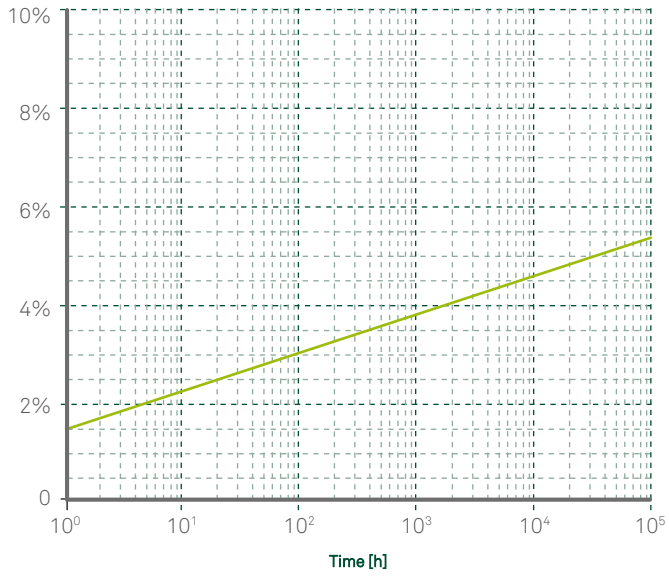
Material selection can be made using the Static/ Dynamic E-Module in the respective load range or using the Vibration Isolation Level Abacus below:

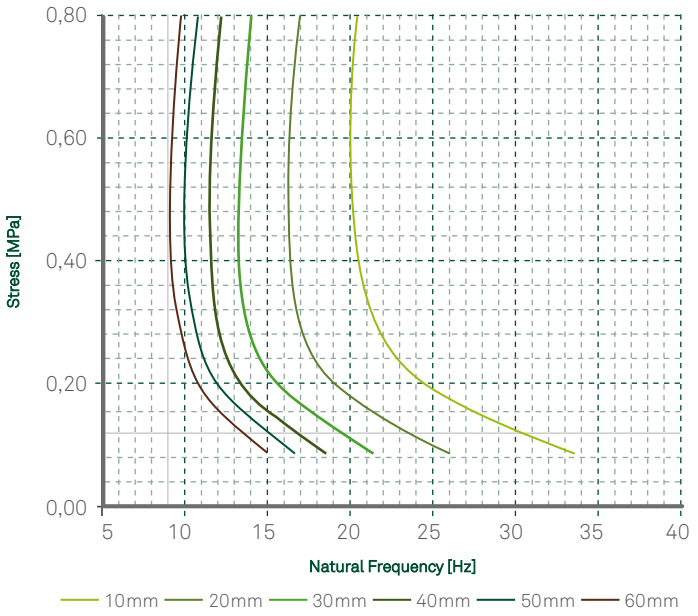
- Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.
- Determine the material compression from the deflection curve at the specific load/ stress.
- Creep effect can be added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

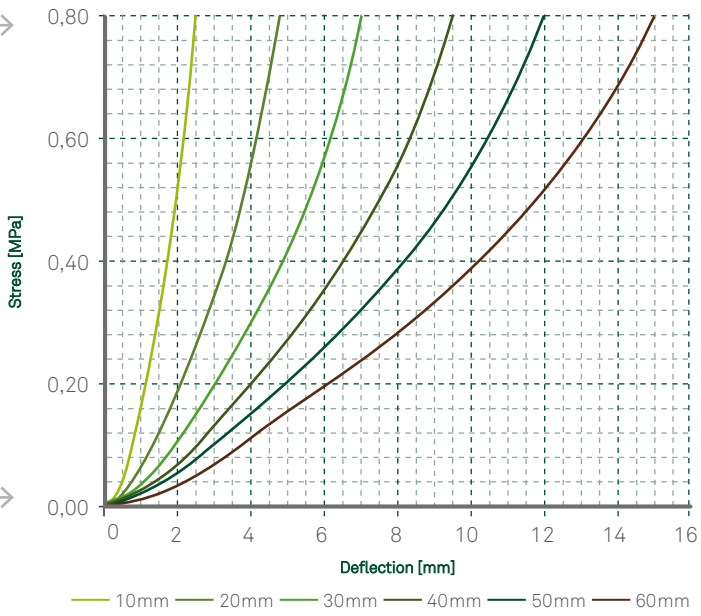
Vibration Isolation



Creep Deflection @ 0.4 MPa [% of start height]



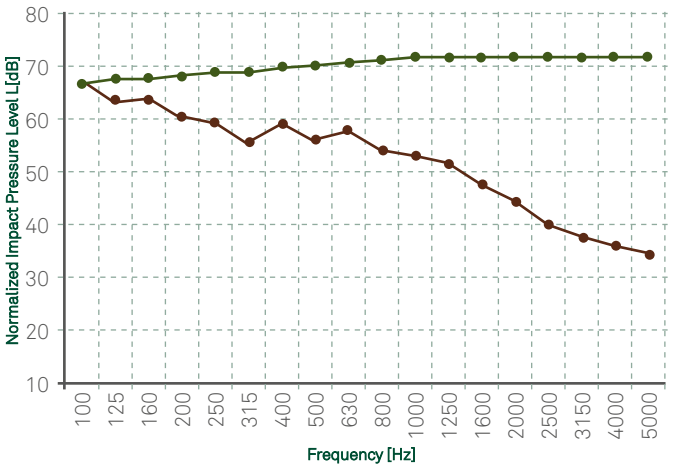




Note: 20mm, 30mm, 40mm, 50mm and 60mm thickness achieved through stacking 10mm (flat) thickness layers.

ACOUSTICAL RESULTS

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

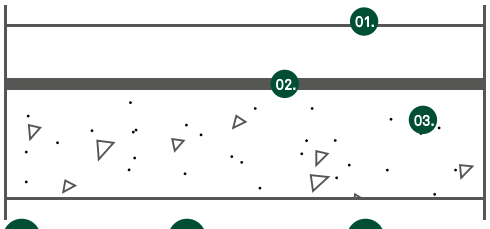


$L_{n,r,0}$ (dB)

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

TEST APPARATUS [ΔL_w & IIC]



01. Concrete floating screed with 70mm thickness

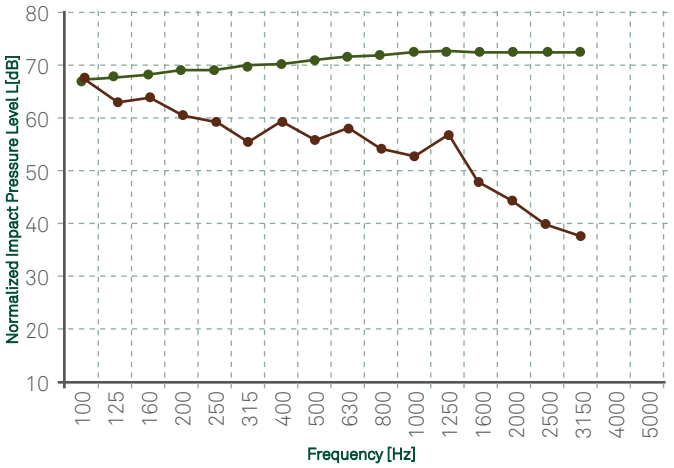
02. Agglomerated recycled rubber resilient layer - VC 7200

03. Reinforced concrete slab of thickness 140mm

Ref. Test Report	Thickness	$L_{n,r,w}$ ($C_{I,r}$)	ΔL_w ($C_{I,\Delta}$)
ACU102/12	5 mm	57 (0) dB	21 (-11) dB

ACOUSTICAL RESULTS

Test procedure according to standards ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010. Normalized impact sound pressure level and IIC raiting determinated according to standards ASTM E492-09 and ASTM E989-06.



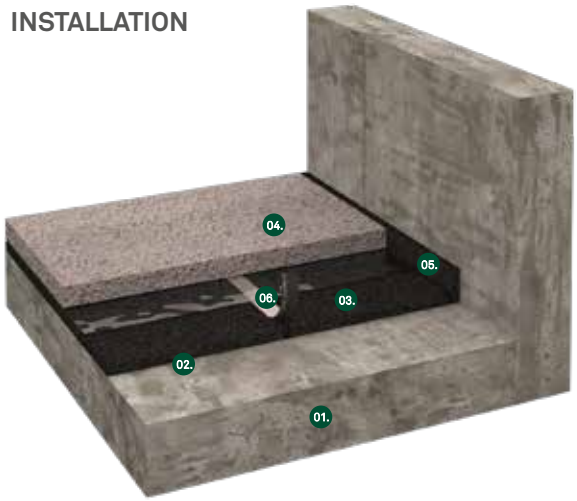
$L_{n,r,0}$ (dB)

$L_{n,r}$ (dB) - 5mm

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

Thickness	IIC_c
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 > -5ºC / Room moisture content < 75%.

Subfloor
All subfloor work should be structurally sound, clear and level. The moisture content of the subfloor should not be more than 2.5% (CM) by weight measured on concrete subfloors.

Perimeter Insulation Barrier
Install a perimeter insulation barrier vertically around the entire perimeter of the room with width equal to that of the floor build up. This is highly recommended in order to avoid lateral propagation of impact noise. The barrier must also be applied in the perimeter of pipes, ducts or any other component protruding from the floor. Spot adhere the strips to the wall using acrylic glue or a bead of silicone sealant.

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 desined size to fit the installation. Apply directly over the subfloor. Always ensure that material is installed to fit the application avoiding the creation of waves in the material.

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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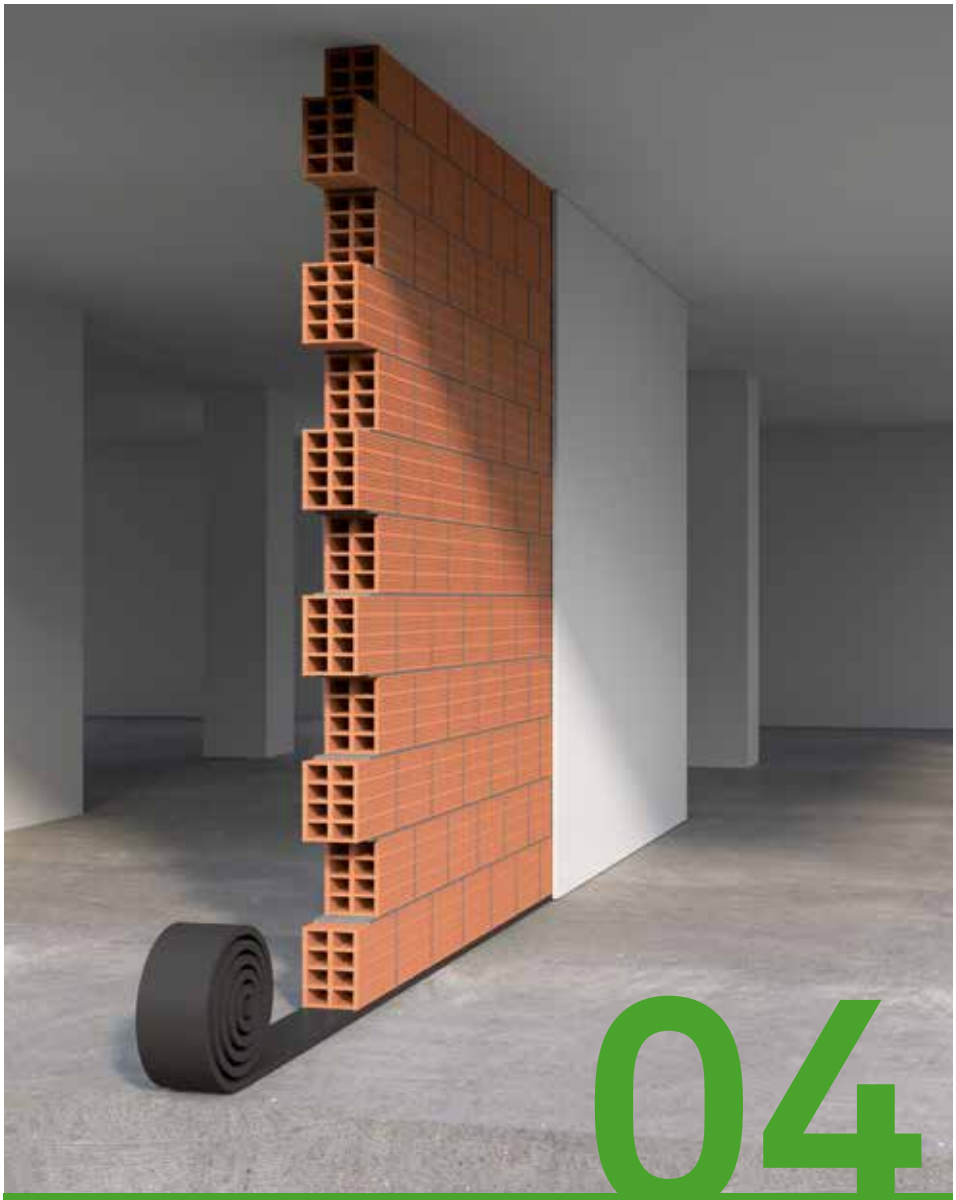
ACOUSTICORK

REINVENTING SUSTAINABLE GREEN AND ACOUSTIC INSULATION



04

WALL BEARING

WALL BEARING

ACOUSTICORK increases the lifetime of the building decreasing the crack appearance, due to the decoupling of elements.

Standard Dimensions*	MS-R1	
	Wall Type	ΔR_w
10m x 5cm x 10mm 10m x 10cm x 10mm 10m x 15cm x 10mm 10m x 20cm x 10mm	Single Wall (60kg/m²)	2dB
	Double Wall (85kg/m²)	8dB

*Other dimensions available

THE SOLUTION FOR ACOUSTIC AND ANTIVIBRATIC INSULATION OF WALLS

Data sheets refer to this specific product, although, a high range of decoupling and acoustic insulation solutions are available with the Acousticork brand. The main purpose of the Acousticork range is, more than the comfort and acoustical performance, increasing the lifetime of the buildings, decreasing the crack appearance and improve the housing quality, due to the decoupling of elements.

ACOUSTICORK

MS-R1

MATERIAL DATA SHEET

RECYCLED RUBBER

MATERIAL DESCRIPTION & PROPERTIES

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 load-bearing and non-load-bearing walls.

MAXIMUM LOAD

• **PERMANENT STATIC**	<0,80 MPa (116 psi)*

E-MODULE

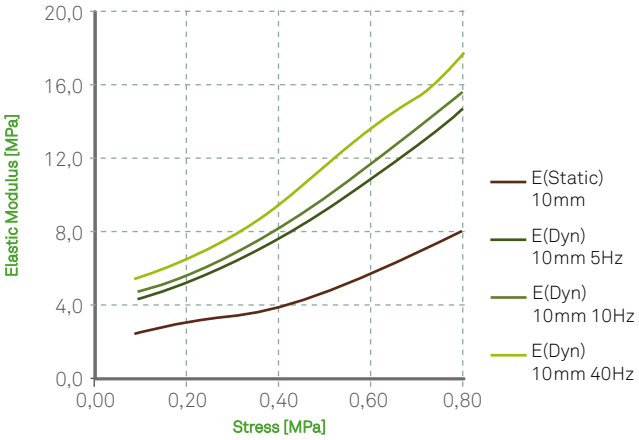
• **STATIC** (1)	3,00-8,00 MPa (435 - 1160 psi)
• **DYNAMIC** (2)	5,50-18,0 MPa (798 - 2610 psi)

(1) DIN 53513 (ADAPTED) - TANGENTIAL MODULUS
(2) DIN 53513 (ADAPTED) - DEPENDING ON LOAD AND FREQUENCY
* AT 25% COMPRESSION

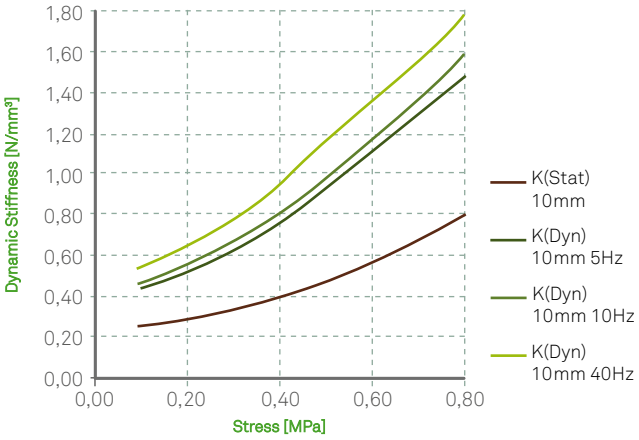
Compression Set (%) (1)	4,3
Tensile Strength (MPa) (2)	> 0,5 (73 psi)
Elongation at break (%) (2)	> 75
Tear- Resistance (N/mm) (3)	> 5,6
Flammability (4)	*B2

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

ELASTIC MODULUS [MPa]



DYNAMIC STIFFNESS [N/mm³]



ADVANTAGES

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

EMPRESA CERTIFICADA apcer ISO 9001 ISO 14001 OHSAS 18001

FSC www.fsc.org FSC® C022338 The mark of responsible forestry

PEFC

RoHS Compliant
AMORIM CORK COMPOSITES

ACOUSTICAL RESULTS

Wall type	ΔR_w
Single Wall (60kg/m²)	2 dB
Double Wall (95kg/m²)	8 dB

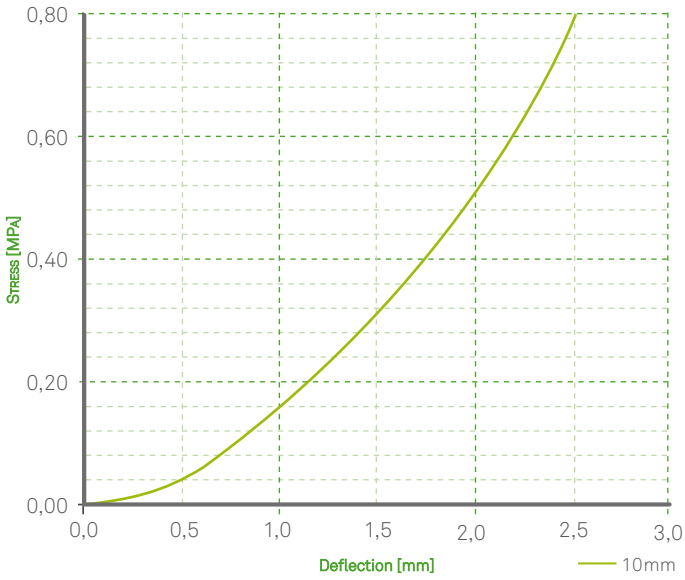
STANDARD DIMENSIONS

Standard Dimensions*
10m x 5cm x 10mm
10m x 10cm x 10mm
10m x 15cm x 10mm
10m x 20cm x 10mm

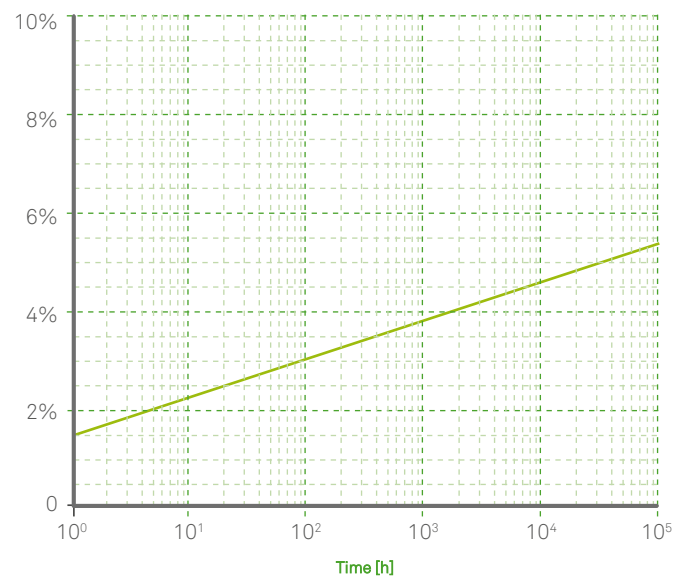
* Other dimensions available.

PHYSICAL AND MECHANICAL PROPERTIES

LOAD DEFLECTION



CREEP DEFLECTION @ 0,04MPa (% OF START HEIGHT)

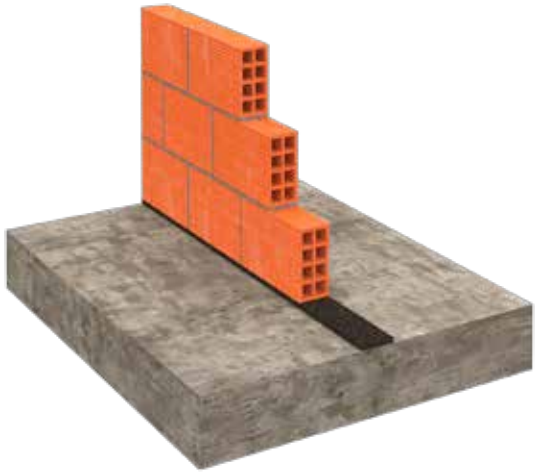


INSTALLATION

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.



AMORIM CORK COMPOSITES

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NOTES

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NOTES

AMORIM CORK COMPOSITES
Rua de Meladas, 260
4535-186 Mozelos VFR · Portugal

T. +351 22 747 5300
F. +351 22 747 5301
E. acc@amorim.com

AMORIM CORK COMPOSITES USA
Amorim Cork Composites USA
26112 110th Street
Trevor, WI 53179

T. (800) 558 3206
F. (262) 862 2500

www.amorimcorkcomposites.com
www.acousticorkusa.com