ACOUSTICORK

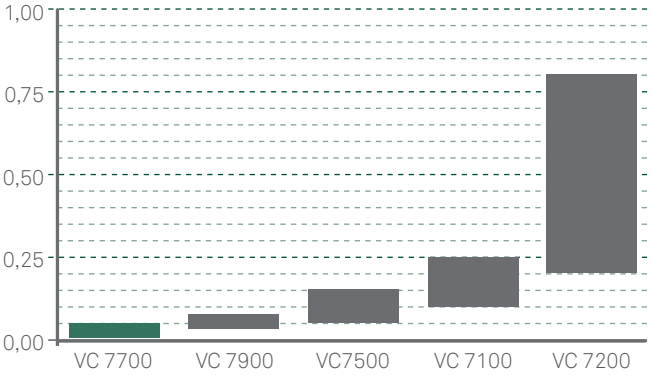
AMORIM
CORK COMPOSITES

VC7700

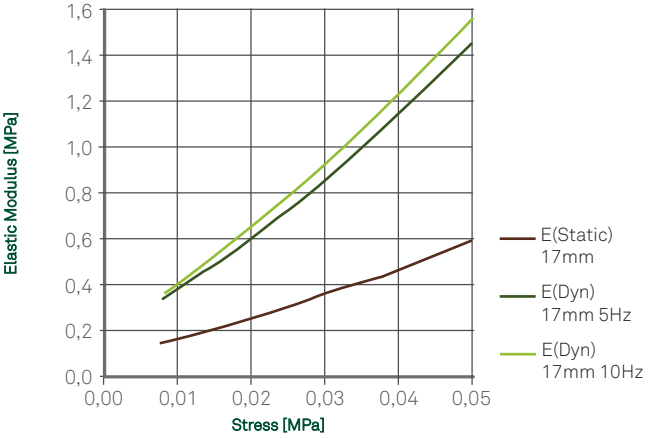
Material Data Sheet

RECYCLED RUBBER

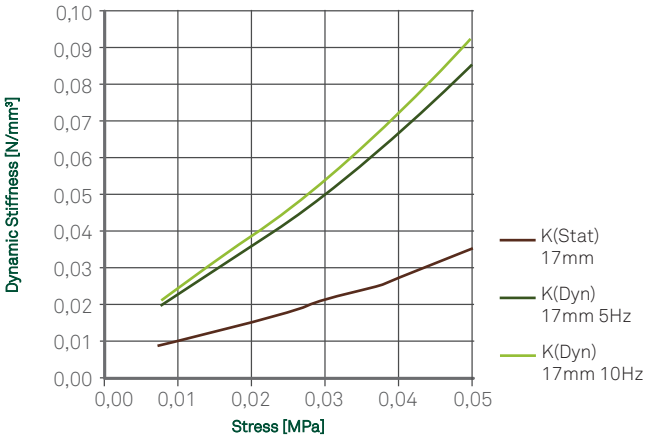
WORK LOAD RANGE [MPa]



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
Density (Kg/m³) (5)	550 (34 lb/ft3)

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

FEATURES

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

RoHS Compliant
AMORIM CORK COMPOSITES

FSC www.fsc.org FSC® C022338

PEFC PEFC/15-32-014 Promoting Sustainable Forest Management www.pefc.org

CERTIFICAÇÃO apcer ISO 9001 ISO 14001 OHSAS 18001

CERTIFIED IQNet MANAGEMENT SYSTEM

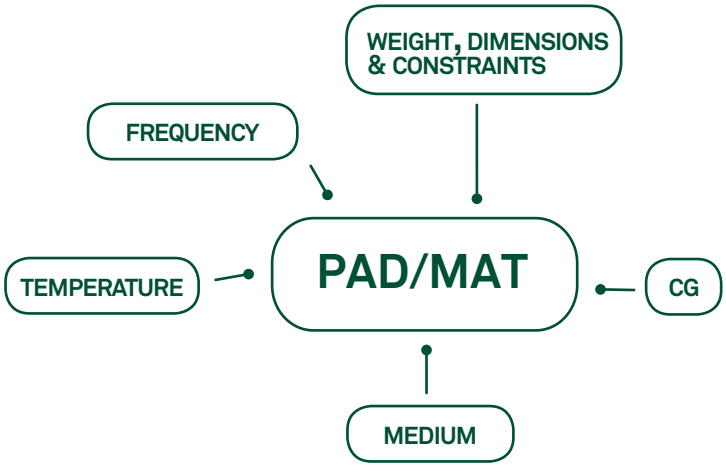
Selection Guideline

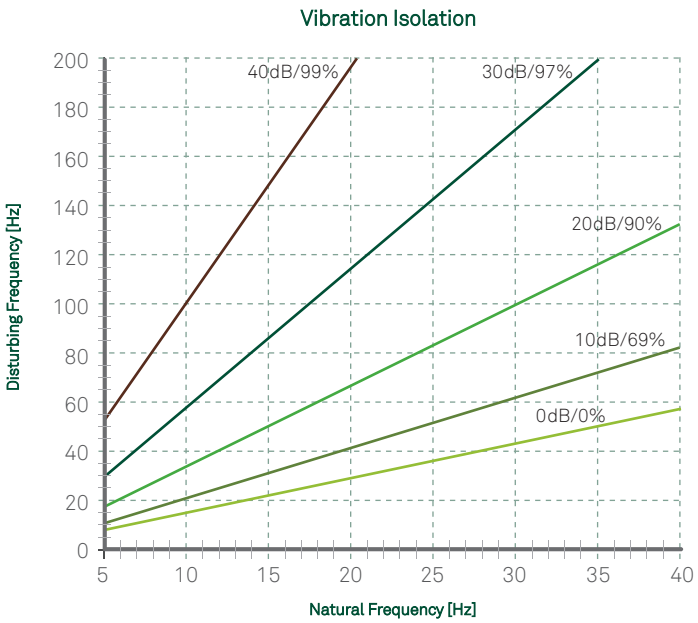
Material selection can be made using the Static/Dynamic E-Module in the respective load range or using the Vibration Isolation Level Abacus below:

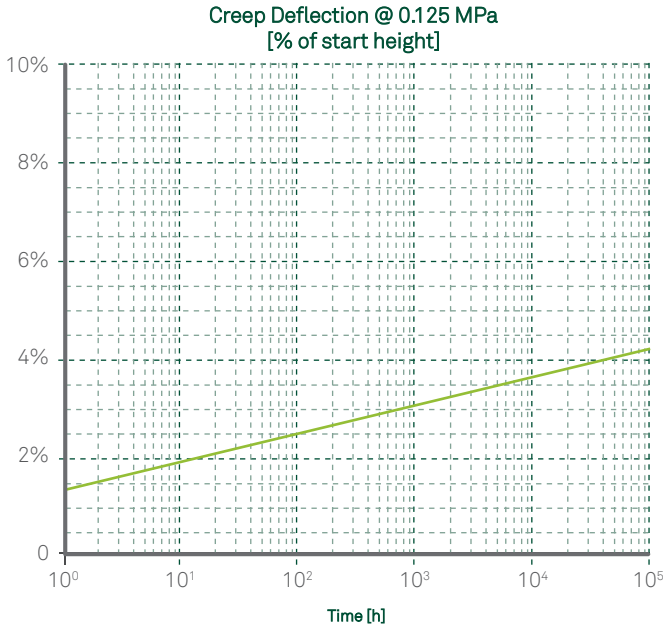
• Based on the machine/system disturbing frequency select the desired isolation level based on the material thickness and respective natural frequency for the specific load/ stress.

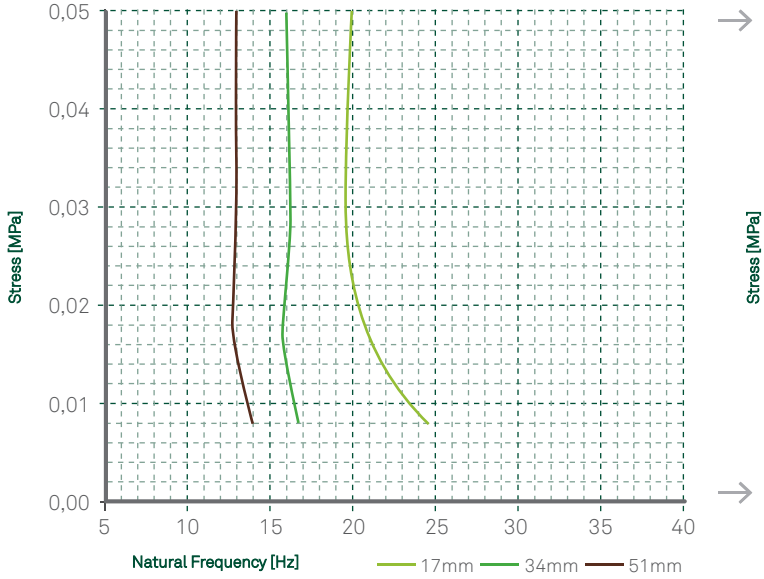
• Determine the material compression from the deflection curve at the specific load/ stress.

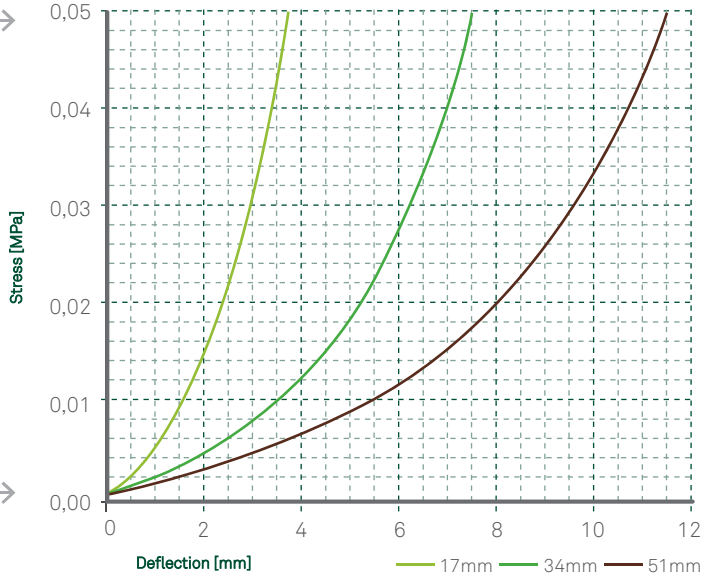
• Creep effect can be added to the above deflection via the Creep deflection graph calculating the additional deflection and adding.







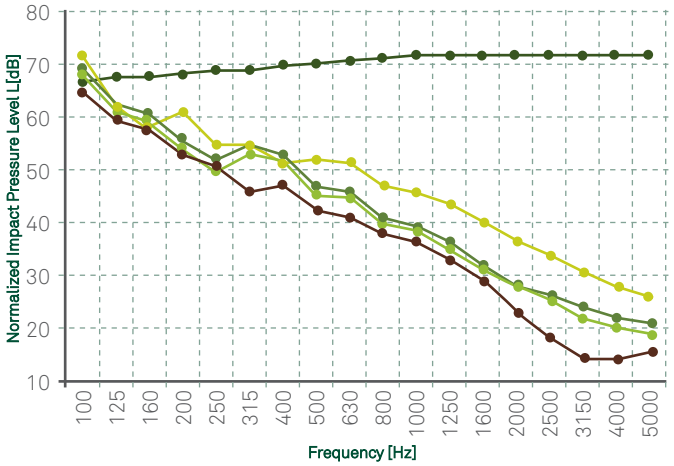




Note: 34mm and 51mm thickness achieved through stacking 17mm (profile) thickness layers.
Note: Samples tested - 300x300 [mm]

ACOUSTICAL RESULTS

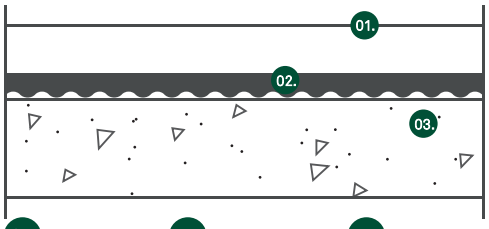
Test procedure according to ISO 10140-1:2010; ISO 10140-3:2010; ISO 10140-4:2010 and ISO 717-2:2013 standards.



$L_{n,r}$ - Normalized impact sound pressure level of the reference floor with the floor covering under test;
$L_{n,r,0}$ - Normalized impact sound pressure level of the Lab reference floor;
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) - 10/5mm
$L_{n,r}$ (dB) - 17/9mm
$L_{n,r}$ (dB) - 8/4mm
$L_{n,r}$ (dB) - 12/6mm

TEST APPARATUS [ΔL_w & IIC]



01. Concrete floating screed with 70mm thickness

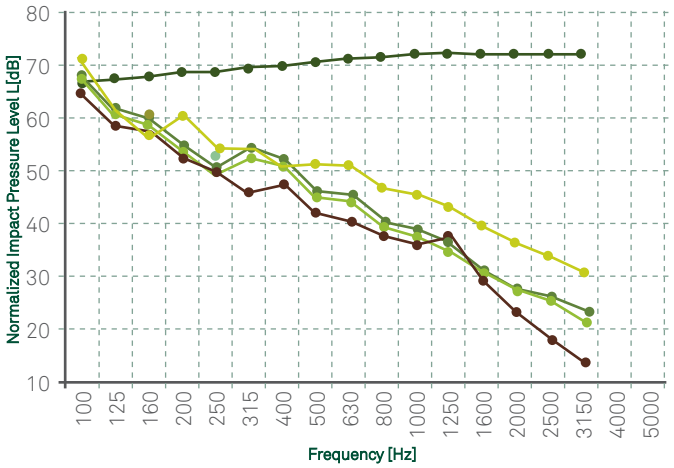
02. Agglomerated recycled rubber resilient layer with one face dimpled - VC 7700

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	17/8mm	49 (3) dB	29 (-14) dB

ACOUSTICAL RESULTS

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

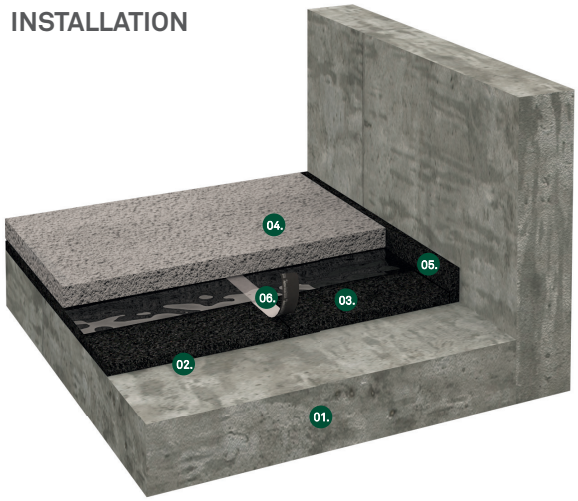


L_{ref} - Normalized impact sound pressure level of the reference floor with the floor covering under test;
$L_{ref,c}$ - Normalized impact sound pressure level of the Lab reference floor;

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

Thickness	IIC_c
8/4 mm	48 dB
10/5 mm	50 dB
12/6 mm	52 dB
17/8 mm	55 dB

INSTALLATION



01. Reinforced concrete slab
02. Vapor barrier
03. Agglomerated recycled rubber resilient layer - VC 7700
04. Concrete floating screed
05. Perimeter insulation barrier
06. Adhesive tape

General Installation Instructions
The following installation instructions are recommended by Amorim Cork Composites, but are not intended as a definitive project specification. They are presented in an attempt to be used with recommended installation procedures of the flooring manufacturers and screed.

Room Conditions
Temperature > -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.