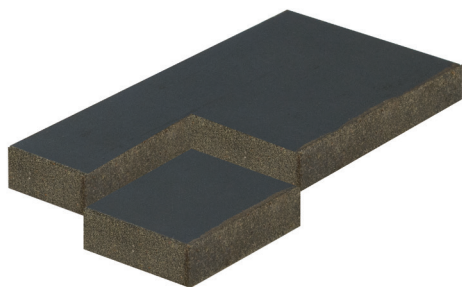


VC1005

Material Data Sheet

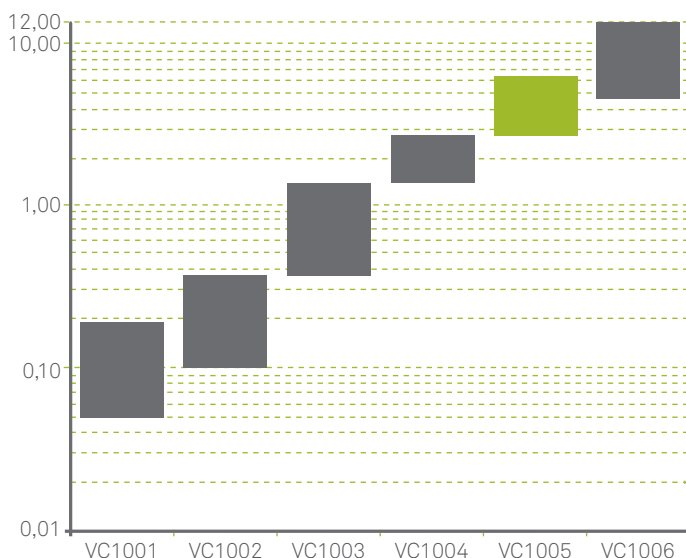


CORK & NATURAL RUBBER

VC1005 Vibration Control material is an engineered compound with Cork and Natural Rubber.

This product is suitable for vibration control applications in need of very high isolation levels, used as discrete isolators (pads/strips) with a low resonance frequency and high load, such as: building bearings, separation of individual building parts, two-tier construction or crane runway bearings.

WORK LOAD RANGE [MPa]



FEATURES

- Long term durability
- High dynamic effectiveness
- Simple handling and processing
- Excellent long-term creep behaviour
- High mechanical resistance
- High load decoupling with bearings in minimal space

STANDARD DIMENSIONS*

1100x550x10mm

1100x550x20mm

550x545x25mm

550x545x30mm

550x545x50mm

* Other dimensions (like pads) available under request

LOAD RANGE

- **STATIC** 3,0 - 7,0 MPa (435 - 1015 psi)
- **TOTAL** 8,0 MPa (1160 psi)
- **OCCASIONAL** 15,0 MPa (2176 psi)

E-MODULE (@ stable load)

- **STATIC** ⁽¹⁾ 40,0 - 50,0 MPa (5802 - 7252 psi)
- **DYNAMIC** ⁽²⁾ 80,0 - 155,0 MPa (11603- 22481 psi)

TEMPERATURE

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

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

Density (kg/m ³) ⁽¹⁾	1125 (70 lb/ft ³)
Shore hardness (Shore A) ⁽²⁾	70 - 85
Elongation at break (%) ⁽³⁾	> 100
Tensile strength (MPa) ⁽³⁾	> 10,0 (> 1450 psi)
Compression set 50%/23°C/70h (%) ⁽⁴⁾	< 15
Loss Factor ⁽⁵⁾	0,10

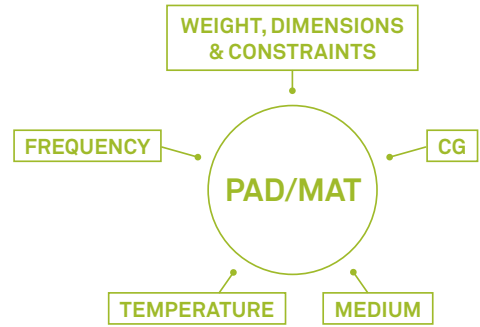
(1) ASTM D297
(2) ASTM D2240
(3) ASTM F152

(4) DIN EN ISO 1856
(5) DIN 53513 (Temperature, frequency and load dependent)

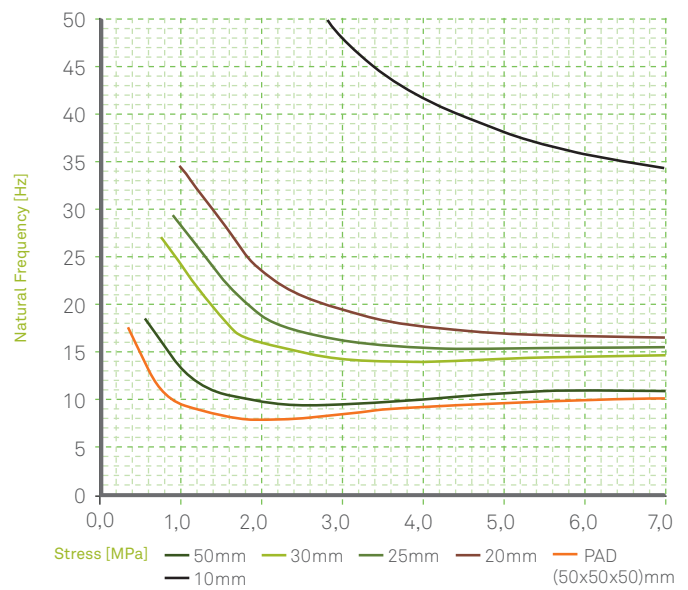
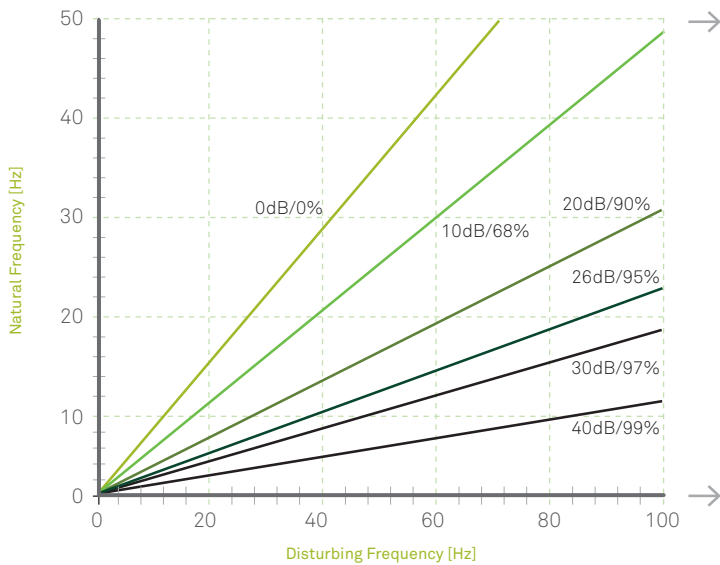
Selection Guideline

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.

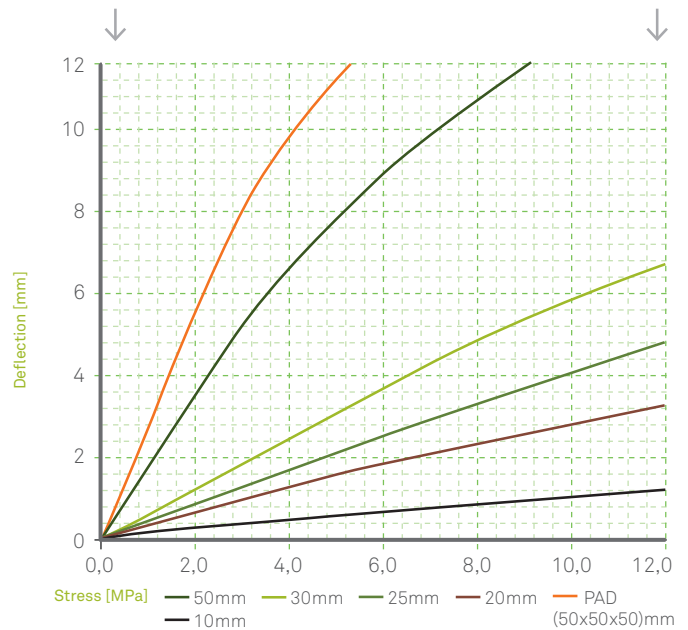
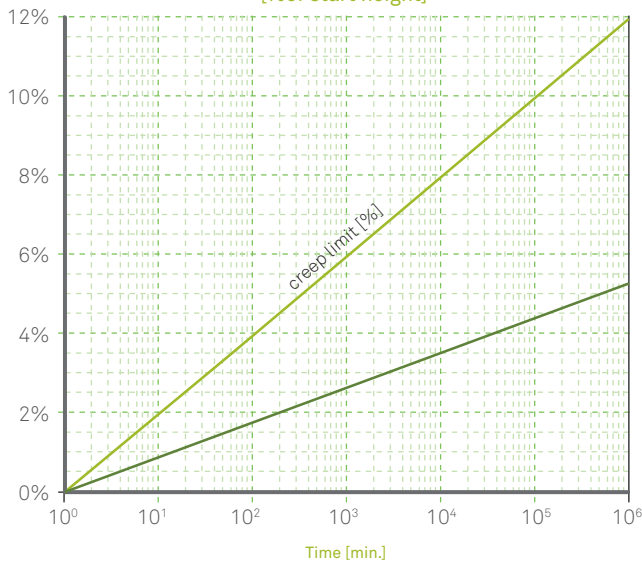


Vibration Isolation Level



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

Creep Deflection @ 3,5 MPa [%of start height]



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



The data provided in this Material Data Sheet represents typical values. This information is not intended to be used as a purchasing specification and does not imply suitability for use in a specific application. Failure to select the proper product may result in either equipments damage or personal injury. Please contact Amorim Cork Composites regarding specific application recommendations. Amorim Cork Composites expressly disclaims all warranties, including any implied warranties or merchantability or of fitness for a particular purpose. Amorim Cork Composites is not liable for any indirect special, incidental, consequential, or punitive damages as a result of using the information listed in this MDS. Any of its material specification sheets, its products or any future use or re-use of them by any person or entity. For contractual purposes, please request our Product Specifications Sheet (PDA).

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