

VC1004

Material Data Sheet



CORK & NATURAL RUBBER

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

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

LOAD RANGE

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

E-MODULE (@ stable load)

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

TEMPERATURE

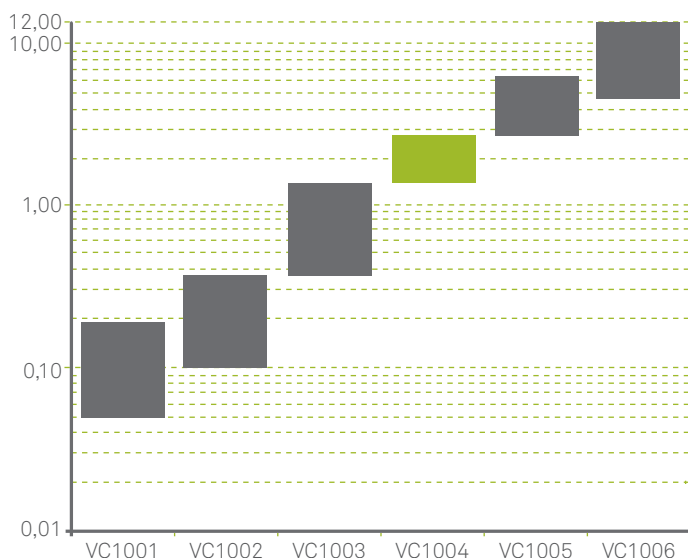
- **RANGE** -10 / +100°C (+14 / 212 °F)

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

Density (kg/m ³) ⁽¹⁾	1125 (70 lb/ft ³)
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
Loss Factor ⁽⁵⁾	0,16

(1) ASTM D297 (2) DIN EN ISO 1856
 (2) ASTM D2240 (5) DIN 53513 (Temperature, frequency and load dependent)
 (3) ASTM F152

WORK LOAD RANGE [MPa]



FEATURES

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

STANDARD DIMENSIONS*

1100x550x20mm

550x550x30mm

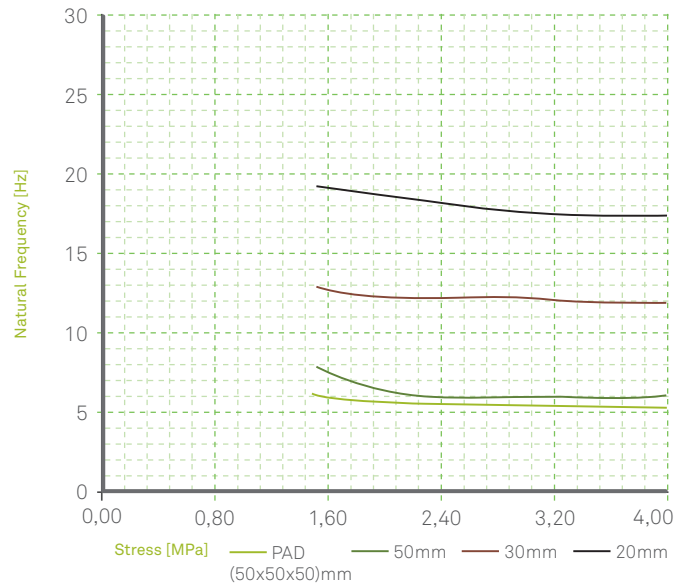
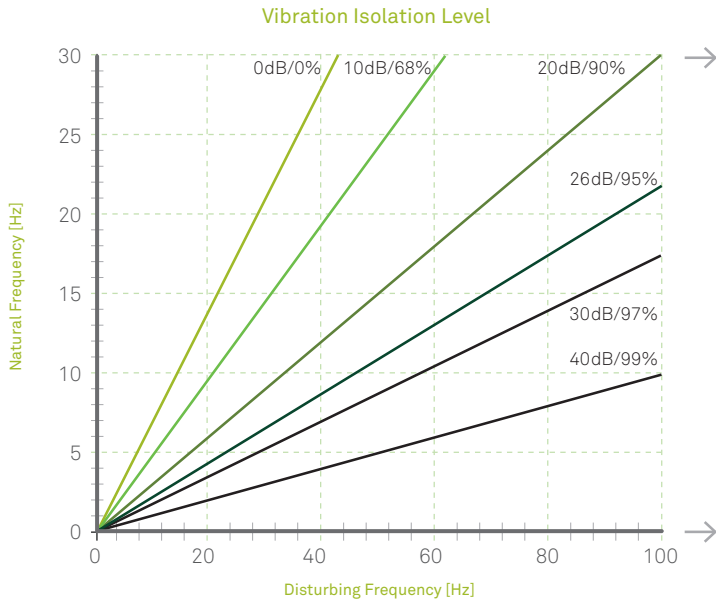
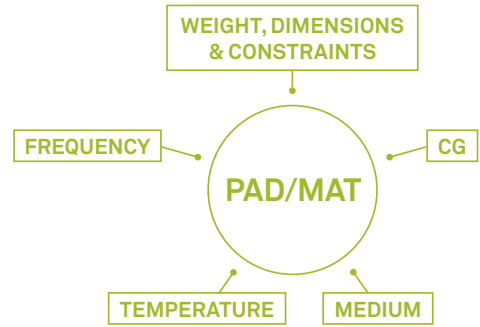
550x550x50mm

* Other dimensions (like pads) available under request

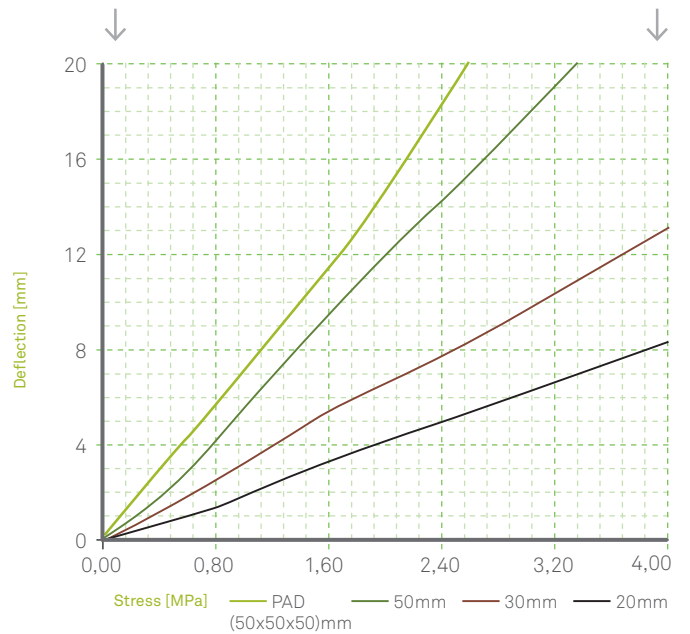
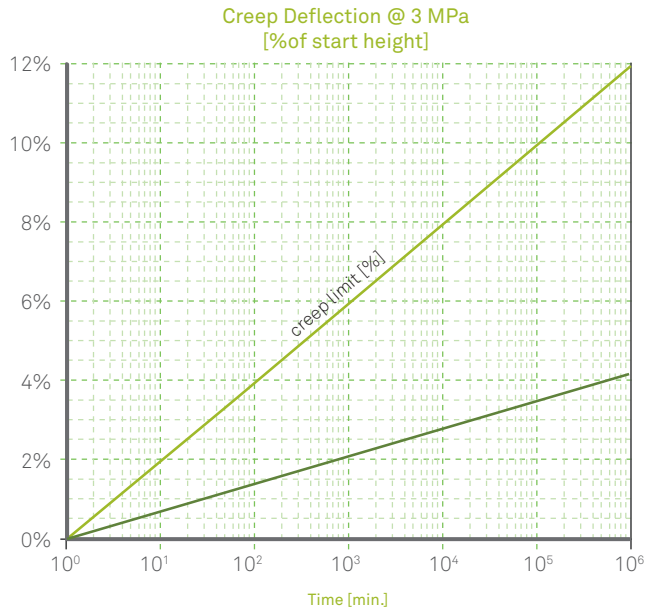
Selection Guideline

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

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



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



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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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