

VC1005

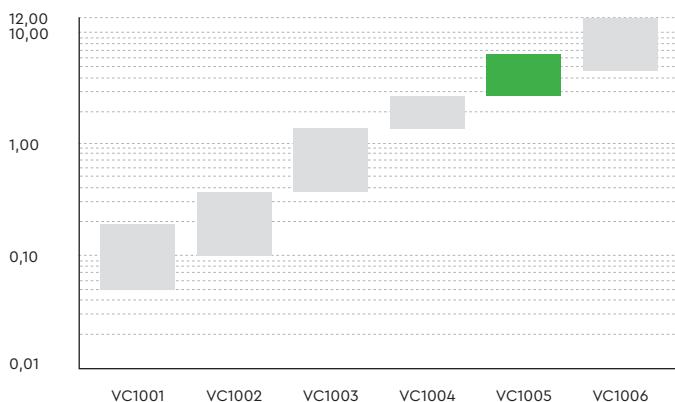


Cork & natural rubber

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*

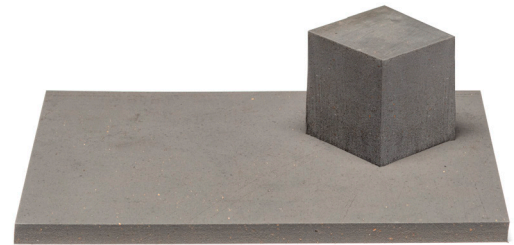
- ▶ 1100x550x10mm
- ▶ 1100x550x20mm
- ▶ 550x545x30mm
- ▶ 550x545x50mm
- ▶ 550x545x25mm

* Other dimensions (like pads) available under request

FIRE CLASSIFICATION

E/Efl^①

^① as per ISO 11925-2:2010; ISO 11925-2:2010



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)

^① DIN 53513 (adapted) – tangential modulus (depending on pad geometrics)
^② DIN 53513 (adapted) – depending on load and frequency

TEMPERATURE

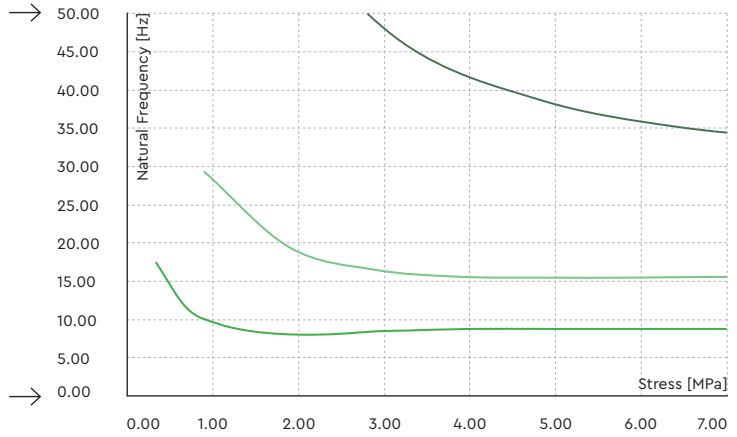
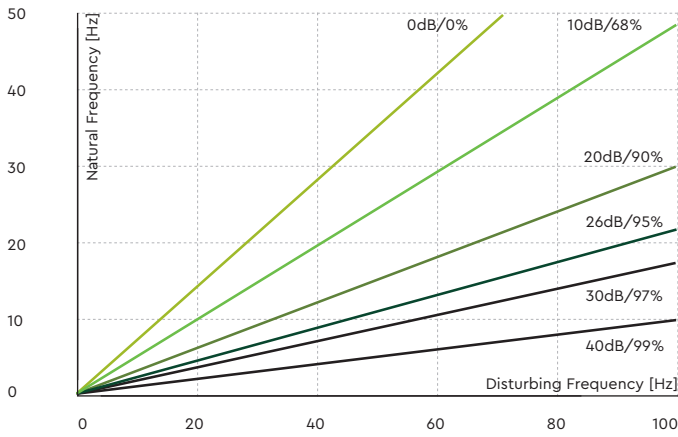
Range	-10 / +100°C (+14 / 212 °F)
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TECHNICAL FEATURES

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) ^④	> 10,0 (> 1450 psi)
Compression set 50%/23°C/70h (%) ^⑤	< 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)

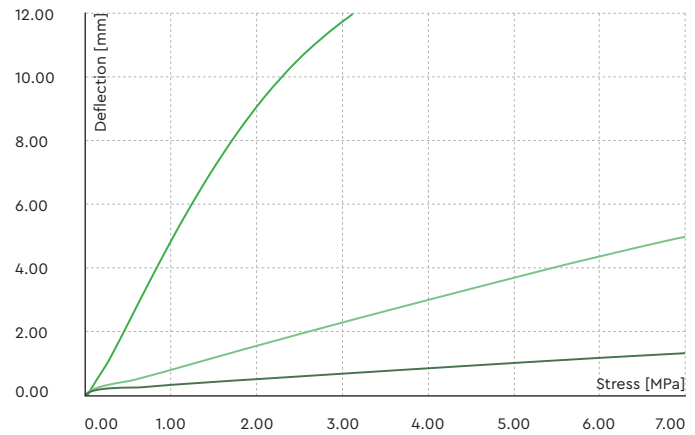
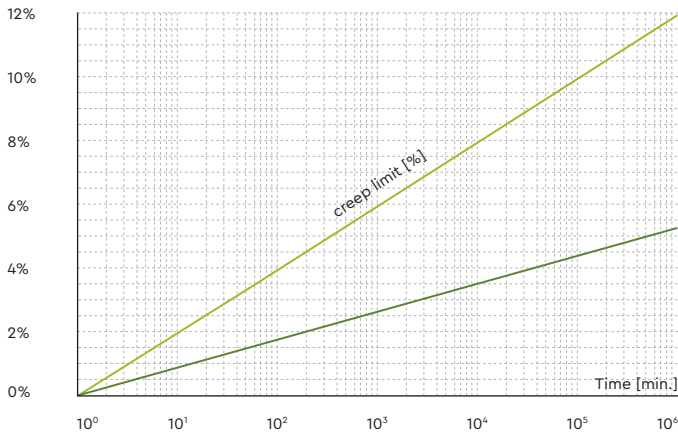
VIBRATION ISOLATION LEVEL



— 25mm — PAD 50x50x50 (mm) — 10mm

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

CREEP DEFLECTION @ 3,5 MPa [% OF START HEIGHT]



— 25mm — PAD 50x50x50 (mm) — 10mm

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

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.

MATERIAL DATA SHEET VC1005

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).