

VC1003

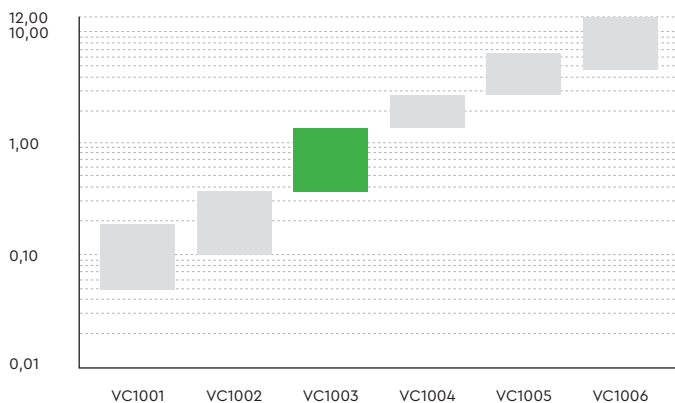


Cork & natural rubber

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 resonance frequency and medium load.

WORK LOAD RANGE [MPa]



FEATURES

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

STANDARD DIMENSIONS*

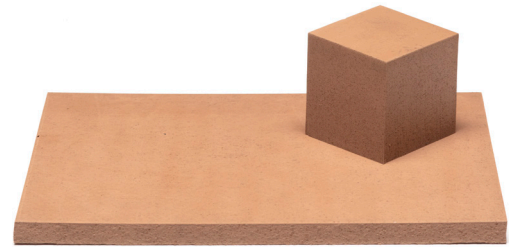
- ▶ 1100x550x20mm
- ▶ 550x550x30mm
- ▶ 550x550x50mm

* Other dimensions (like pads) available under request

FIRE CLASSIFICATION

E/Efl ①

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



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 ①	5,0–13,0 MPa (725–1885 psi)
Dynamic ②	10,0–33,0 MPa (1450–4785 psi)

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

TEMPERATURE

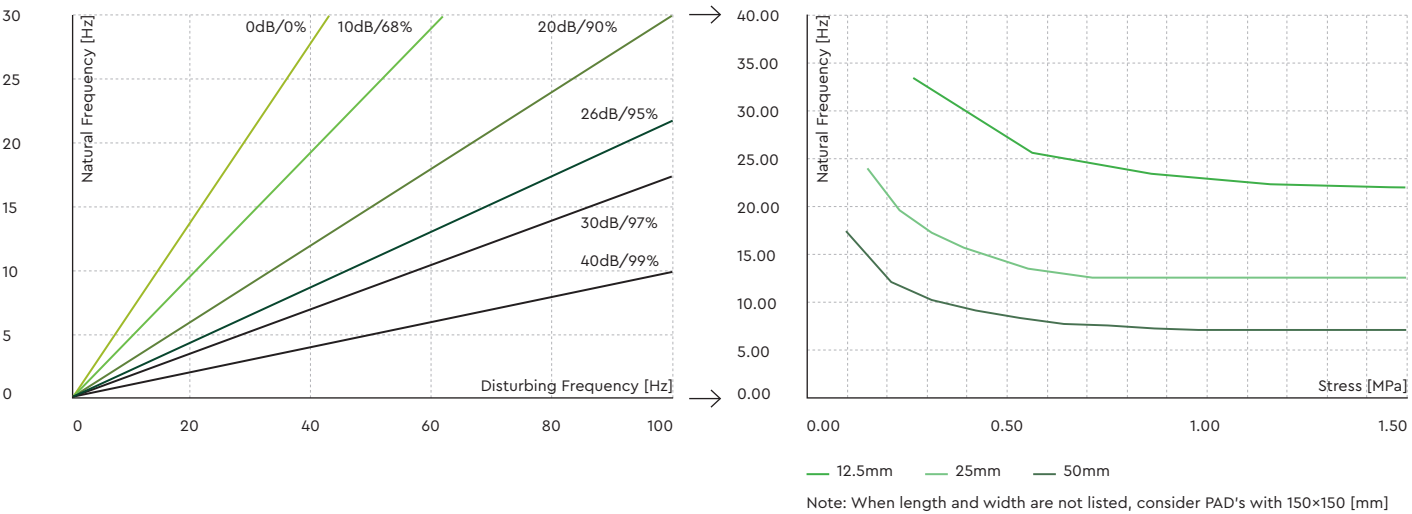
Range	-10 / +100°C (+14 / 212 °F)
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TECHNICAL FEATURES

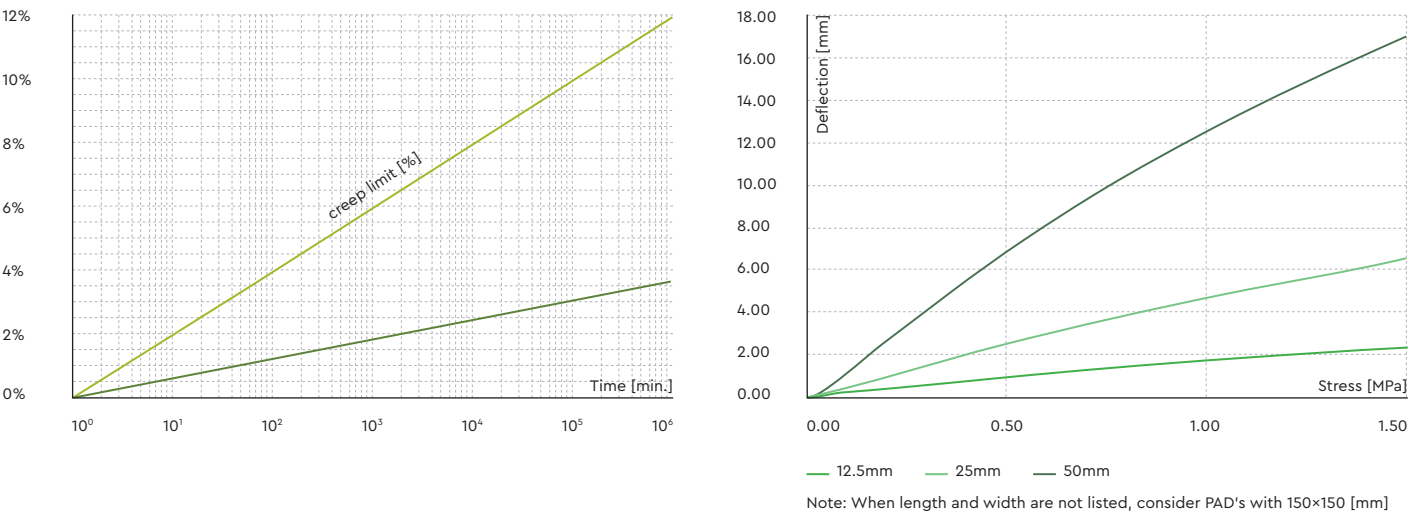
Density (kg/m³) ①	1100 (68 lb/ft³)
Shore hardness (Shore A) ②	45–60
Elongation at break (%) ③	> 300
Tensile strength (MPa) ③	> 5,0 (>725 psi)
Compression set 50%/23°C/70h (%) ④	< 15
Loss Factor ⑤	0,16

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



CREEP DEFLECTION @ 1,5MPa [%OF START HEIGHT]



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 VC1003

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 Solutions regarding specific application recommendations. Amorim Cork Solutions expressly disclaims all warranties, including any implied warranties or merchantability or of fitness for a particular purpose. Amorim Cork Solutions 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).