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.

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

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

Density (kg/m³) (1) 1125 (70 lb/ft³)
Shore hardness (Shore A) (2) 70 - 95
Elongation at break (%) (3) > 100
Tensile strength (MPa) (3) > 10.0 (> 1450 psi)
Compression set 50%/23°C/70h (%) (4) < 15

(1) ASTM D297
(2) ASTM D2240
(3) ASTM F152
(4) DIN EN ISO 1856
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.

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 (PDS).

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