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.

**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** ♯ 40,0–50,0 MPa (5802–7252 psi)
- **Dynamic** ♯ 80,0–155,0 MPa (11603–22481 psi)

♯ DIN 53513 (adapted) - tangential modulus (depending on pad geometrics)
♯ DIN 53513 (adapted) - depending on load and frequency

**TEMPERATURE**

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

**TECHNICAL FEATURES**

- **Density (kg/m³) ®** 1125 (70 lb/ft³)
- **Shore hardness (Shore A) ®** 70–85
- **Elongation at break (%) ®** > 100
- **Tensile strength (MPa) ®** > 10,0 (> 1450 psi)
- **Compression set 50%./23°C/70h (%) ®** < 15
- **Loss Factor ®** 0,10

® ASTM D297 ® ASTM D2240 ® ASTM F152 ® DIN EN ISO 1856
® DIN 53513 (Temperature, frequency and load dependent)

**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

* Other dimensions (like pads) available under request

**FIRE CLASSIFICATION**

- E/Efl ®

® as per ISO 11925-2:2010; ISO 11925-2:2010
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**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**

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