

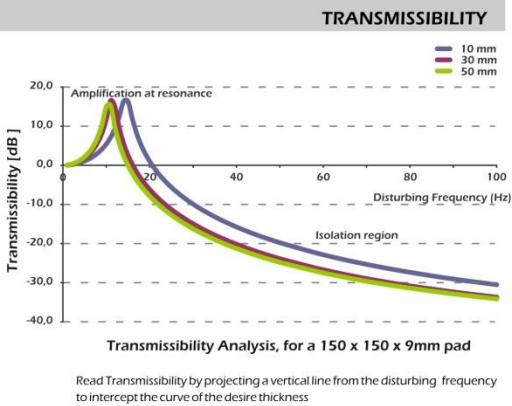
MATERIAL DESCRIPTION & PROPERTIES

VC1001 Vibration Control material is a compound with Cork and Natural Rubber.

This product is designed to isolate at very low pressure applications, with a natural frequency as low as 10 Hz.

- **Maximum load** 0,25 MPa
(36 psi)
- **Work load range** 0,05 to 0,2 MPa
(7 to 29 psi)
- **Temperature range** -40°C to 90°C
(-40°F to 194°F)

It is suitable for Heat, Ventilation and Air Conditioning systems (HVAC), sensitive equipment, chillers



FEATURES

- Excellent isolation at low frequencies
- Isolates vibration from machinery to structures
- Isolates sensitive equipment from structural vibration
- Retains properties throughout long maintenance free life
- Available in thicknesses up to 50 mm
- One layer material avoiding de-lamination issues
- Easy to fabricate into pads
- Retains original length and width under compression due to cork low Poisson ratio

Density [kg/m³] ⁽¹⁾	500
Hardness (Shore A) ⁽²⁾	25
Tensile strength [MPa] ⁽³⁾	0,3

(1) ASTM F1315
(2) ASTM D2240
(3) ASTM F152

VC1001 is free of:

- Polycyclic Aromatic Hydrocarbons (PAH)
- Heavy Metals (Pb, Cd, Hg and Cr (VI))
- Asbestos

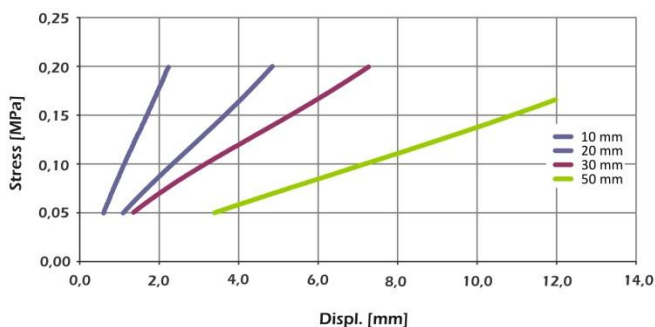
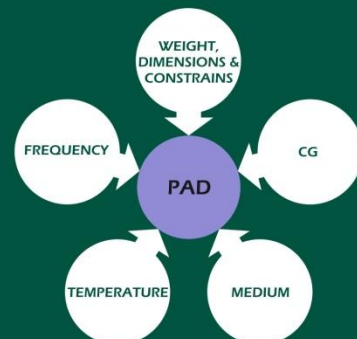
Complies with RoHS and ELV 2000/53/EC European Directives

RoHS Compliant

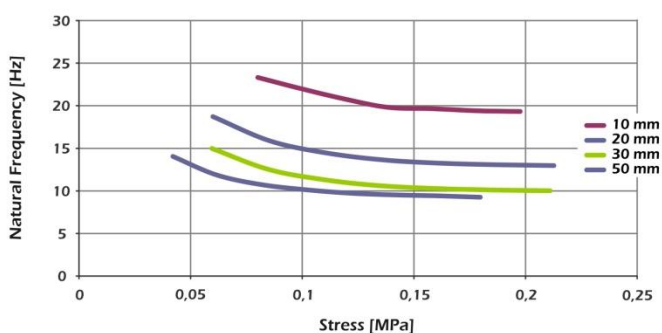
Pad Design Guidelines

In order to have the best design approach, there are key factors to consider:

- Equipment (type and size), dimensional constraints and total weight
- Center of gravity (CG) to calculate the weight distribution between the mounting points
- Disturbing frequency and required isolation efficiency
- Operating temperature
- Environmental conditions (oil, salt corrosive atmosphere)



Load Deflection Analysis, for a 150 x 150 mm Pad at 5mm/min



Natural frequency for a 150 x 150 mm Pad, obtained in a test at 15Hz

Pad Stress

Calculate Pad Stress in MPa (or N/mm²):

$$\text{Stress in MPa} = \frac{\text{Weight of machine in kg} \times 9.8}{\text{Total Pad area in mm}^2}$$

- Project horizontal line from calculated stress to intercept the curve of desired thickness
- Read deflection (mm) of horizontal axis of graph
- Total Pad area = number of Pads x Pad area

Pad Natural Frequency

Natural frequency of Pad:

- Calculate stress on Pad in N/mm² (see above)
- Read from horizontal axis across to desired Pad thickness
- Read natural frequency (fn) on vertical axis