

MATERIAL DESCRIPTION & PROPERTIES

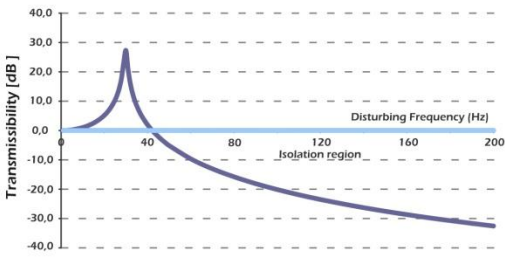
VC7000 Vibration Control material is a compound with Cork and Silicone (VMQ) Rubber.

This product is designed to isolate and damp at extreme temperatures and medium / loads.

- **Maximum load** 10 MPa
(1450 psi)
- **Work load range** 1,0 to 6,0 MPa
(145 to 870 psi)
- **Temperature range** -60°C to 175°C
(-76°F to 347°F)

Designed to isolate the transmission of vibrations in Dry transformers and Specialty Machinery.

TRANSMISSIBILITY



Transmissibility Analysis, for a 150 x 150 x 9mm pad

Read Transmissibility by projecting a vertical line from the disturbing frequency to intercept the curve of the desired thickness

FEATURES

- Reduce vibration, absorb shock and structure borne noise
- 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⁾	1100
Hardness [Shore A] ⁽²⁾	70
Tensile strength [MPa] ⁽³⁾	3,0

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

VC7000 is free of:

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

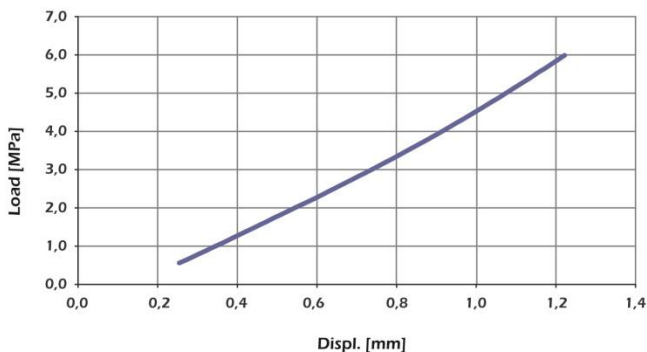
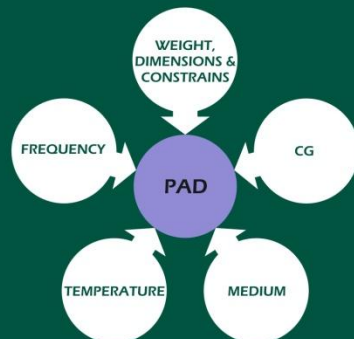
Complies with RoHS and ELV 2000/53/EC
European Directives

RoHS Compliant

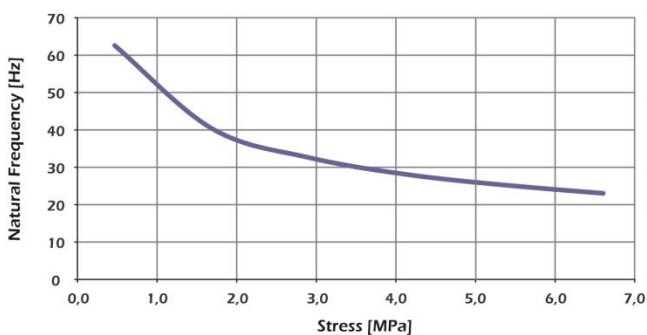
Pad Design Guidelines

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

- Equipment (type and size), dimensional constrains 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 dynamic test at 15 Hz

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