

MATERIAL DESCRIPTION & PROPERTIES

VC6400 Vibration control material is an Engineered compound with Cork and Synthetic rubber.

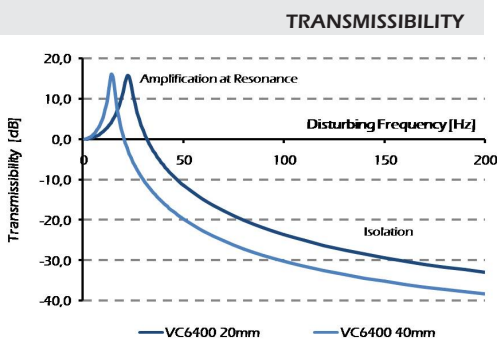
This product is suitable for external vibration control applications, specifically formulated to perform in longevity in the application environment when subject to the application conditions such as the presence of Ozone.

- **Maximum load** 2.0 MPa
(290 psi)
- **Work load range** 0.5 to 1.5 MPa
(72 to 217 psi)
- **Temperature range** ... -50°C to 110°C
(-40°F to 257°F)

Specially designed to isolate the transmission of vibrations; to be used as external pads

Other Applications include:

- Large HVAC equipment
- Industrial Machinery
- Transformers
- Reactors



Transmissibility Analysis, for a 150 x 150 mm pad

Read the Transmissibility by projecting a vertical line from the disturbing frequency to intercept the curve.

FEATURES

- Reduce vibration, absorb shock and structure borne noise
- Weather Resistance
- Ozone resistance
- Available in thicknesses up to 50mm
- 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/m ³) ¹	1000
Hardness (Shore A) ²	70
Tensile Strength (MPa) ³	2,5
Creep rate (%) ⁴	1,4

- (1) ASTM D297
 (2) ASTM D2240
 (3) ASTM D412, Die C
 (4) ISO 8013

VC6400 is free of:

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

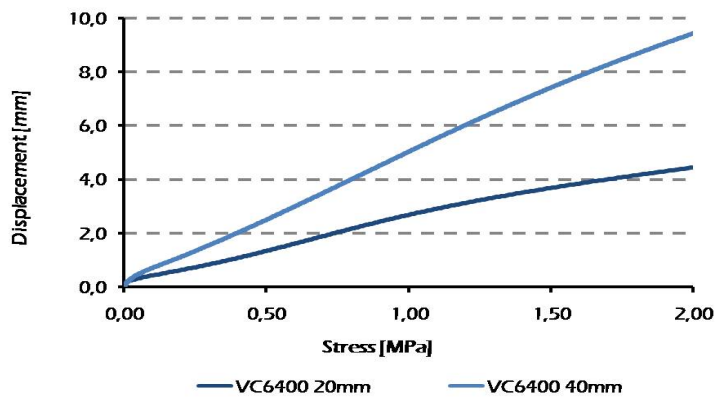
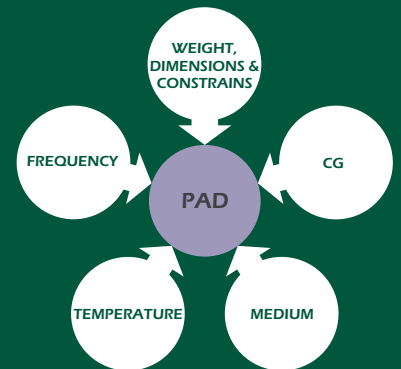
Complies with RoHS and ELV 2000/53/EC
European Directives

RoHS Compliant

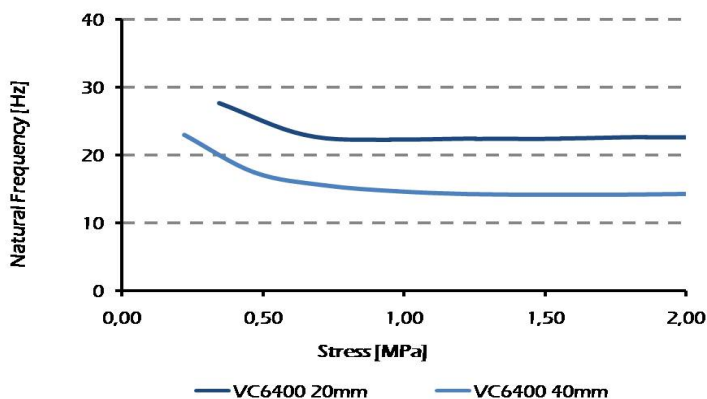
Pad Design Guidelines

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/Excitation frequency and required isolaton efficiency
- Operating temperature
- Enviromental Conditions



Load Deflection Analysis, for a 150 x 150 mm Pad



Natural frequency for a 150 x 150 mm pad obtained in a dynamic test

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
- 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 MPa (see above)
- Project vertical line from calculated stress to intercept the curve
- Read natural frequency (fn) on vertical axis