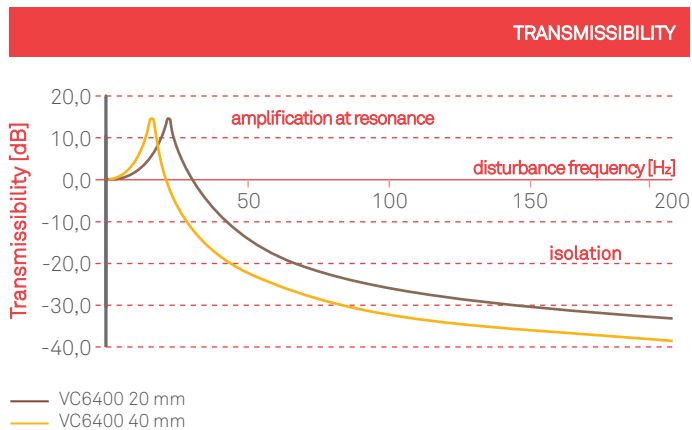


## VC6400

### Material Data Sheet

## Material Description & Properties



### Transmissibility Analysis, for a 150 x 150 pad

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

### FEATURES

- Reduce vibration, absorb shock and structure borne noise
- Weather resistance
- Ozone resistance
- 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's Poisson's ratio

**VC6400** Vibration Control material is a compound engineered with Cork and Synthetic rubber.

This product is recommended for external vibration control applications, specifically formulated to guarantee long-term performance in the application environment when subjected to conditions such as the presence of ozone.

- **MAXIMUM LOAD** \_\_\_\_\_ 2.0 MPa (290psi)
- **WORK LOAD RANGE** \_\_\_\_\_ 0.5 to 1.5 MPa (72 to 217 psi)
- **TEMPERATURE RANGE** \_\_\_\_\_ -50° C to 110° C (-58° F to 230° F)

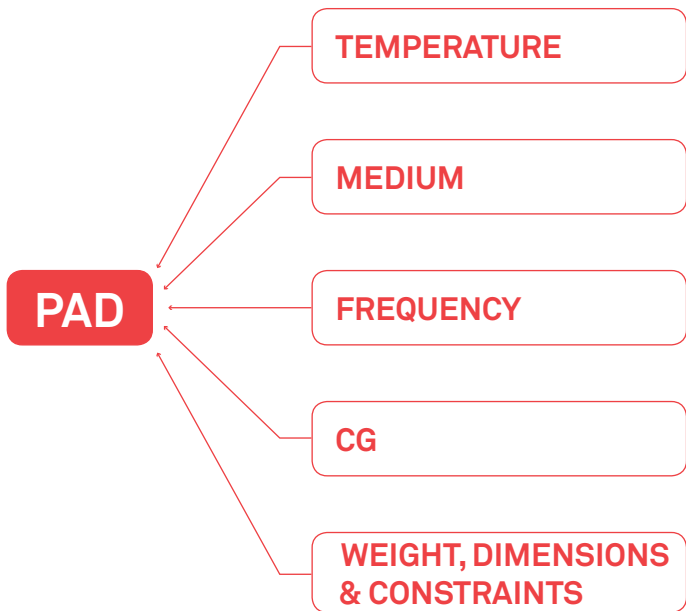
Specially designed to isolate the transmission of vibrations; to be used as external pads:

- Large HVAC equipment
- Industrial Machinery
- Transformers
- Reactors

DENSITY (kg /m <sup>3</sup> ) <sup>1</sup>	1000
HARDNESS (SHORE A) <sup>2</sup>	70
TENSILE STRENGTH (MPa) <sup>3</sup>	2.5
CREEP RATE (%) <sup>4</sup>	1.4
(1) ASTM D297 (2) ASTM D2240 (3) ASTM D412, DieC (4) ISO 8013	

### VC6400 IS FREE OF

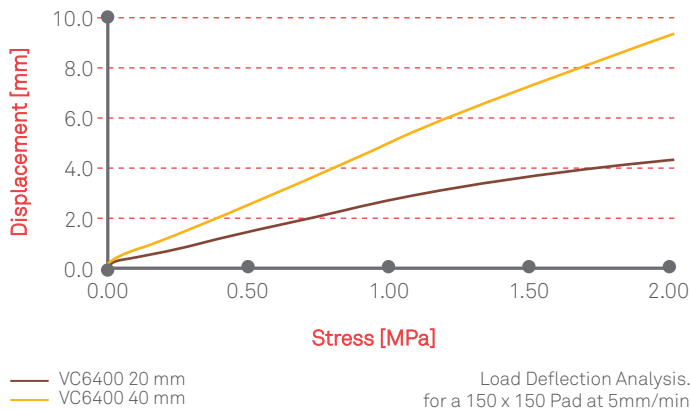
- Polycyclic Aromatic Hydrocarbons (PAH)
- Heavy Metals (Pb, Cd, Hg and Cr (VI))
- Asbestos



## 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
- Centre of gravity (CG) to calculate the weight distribution between the mounting points
- Disturbance / Excitation frequency and required isolation efficiency
- Operating temperature
- Environmental conditions (Medium)

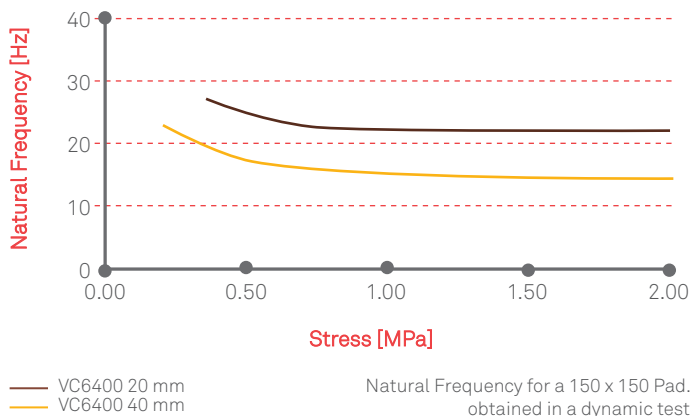


## PAD STRESS

Calculate Pad Stress in MPa (or N/mm<sup>2</sup>):

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

- Project vertical line from calculated stress to intercept the curve
- Read deflection (mm) of vertical 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/mm<sup>2</sup> (see above)
- Project vertical line from calculated stress to intercept the curve
- Read natural frequency (fn) on vertical axis