

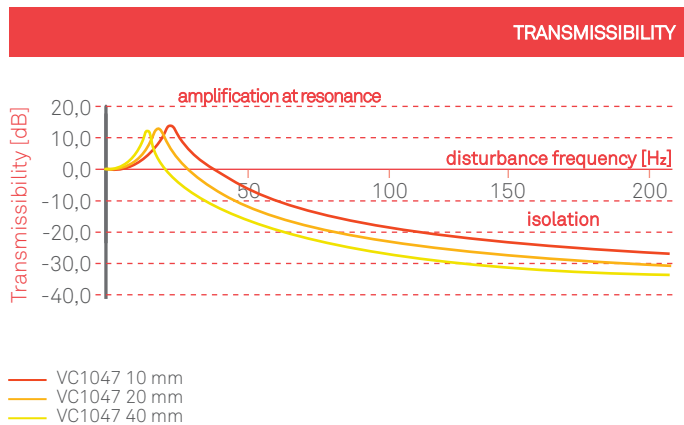
VC1047 Material Data Sheet

VC1047 Vibration Control material is a compound engineered with Cork and Nitrile rubber.

This product is a general purpose industrial vibration control pad material, specifically formulated to guarantee excellent long-term performance in industrial environments when subjected to application conditions such as the presence of oils, greases and cleansing agents.

- **MAXIMUM LOAD** _____ 1.5 MPa
- **WORK LOAD RANGE** _____ 0.25 to 1.0 MPa
- **TEMPERATURE RANGE** _____ -25° C to 120° C
(-13° F to 248° F)

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.

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

- HVAC equipment - AHU; CHRV; Chillers
- Industrial Machinery - Saws; lathers; drills; guillotines and presses etc.
- Power generator systems (gen sets)
- Pumps and compressors
- Textile manufacturing equipment

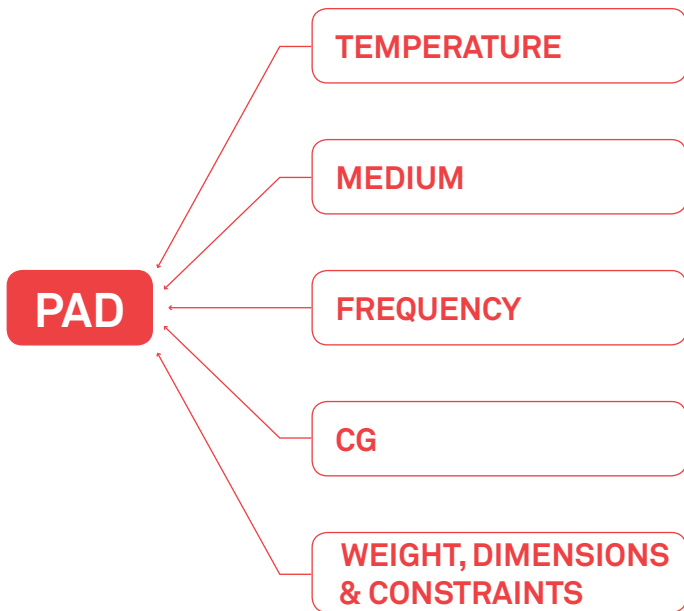
DENSITY (kg /m ³) ¹	780
HARDNESS (SHORE A) ²	70
TENSILE STRENGTH (MPa) ³	2.5
CREEP RATE (%) ⁴	1.7
(1) ASTM D297 (2) ASTM D2240 (3) ASTM D412, DieC (4) ISO 8013	

FEATURES

- Reduce vibration, absorb shock and structure borne noise
- Chemical resistance
- Wide range of sheet thicknesses up to 150 mm
- One layer material avoiding de-lamination issues
- Easy to fabricate into pads
- Retains original length and width under compression due to cork's low Poisson's ratio
- Rapid installation

VC1047 IS FREE OF

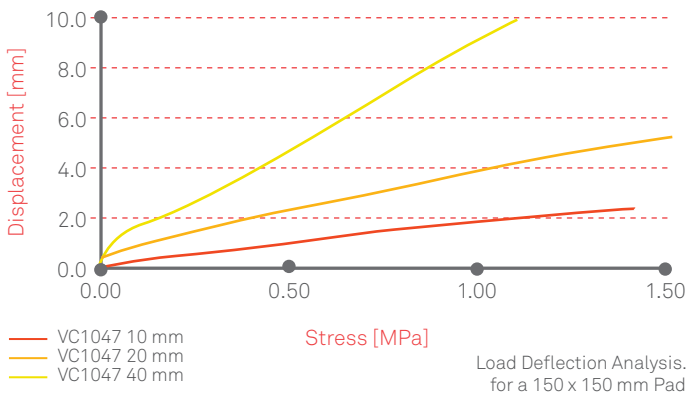
- Polycyclic Aromatic Hydrocarbons (PAH)
- Heavy Metals (Pb, Cd, Hg and Cr (VI))
- Asbestos



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)

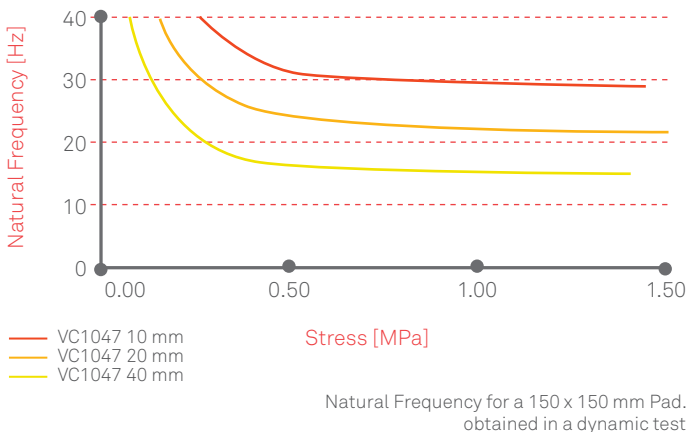


PAD STRESS

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

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

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