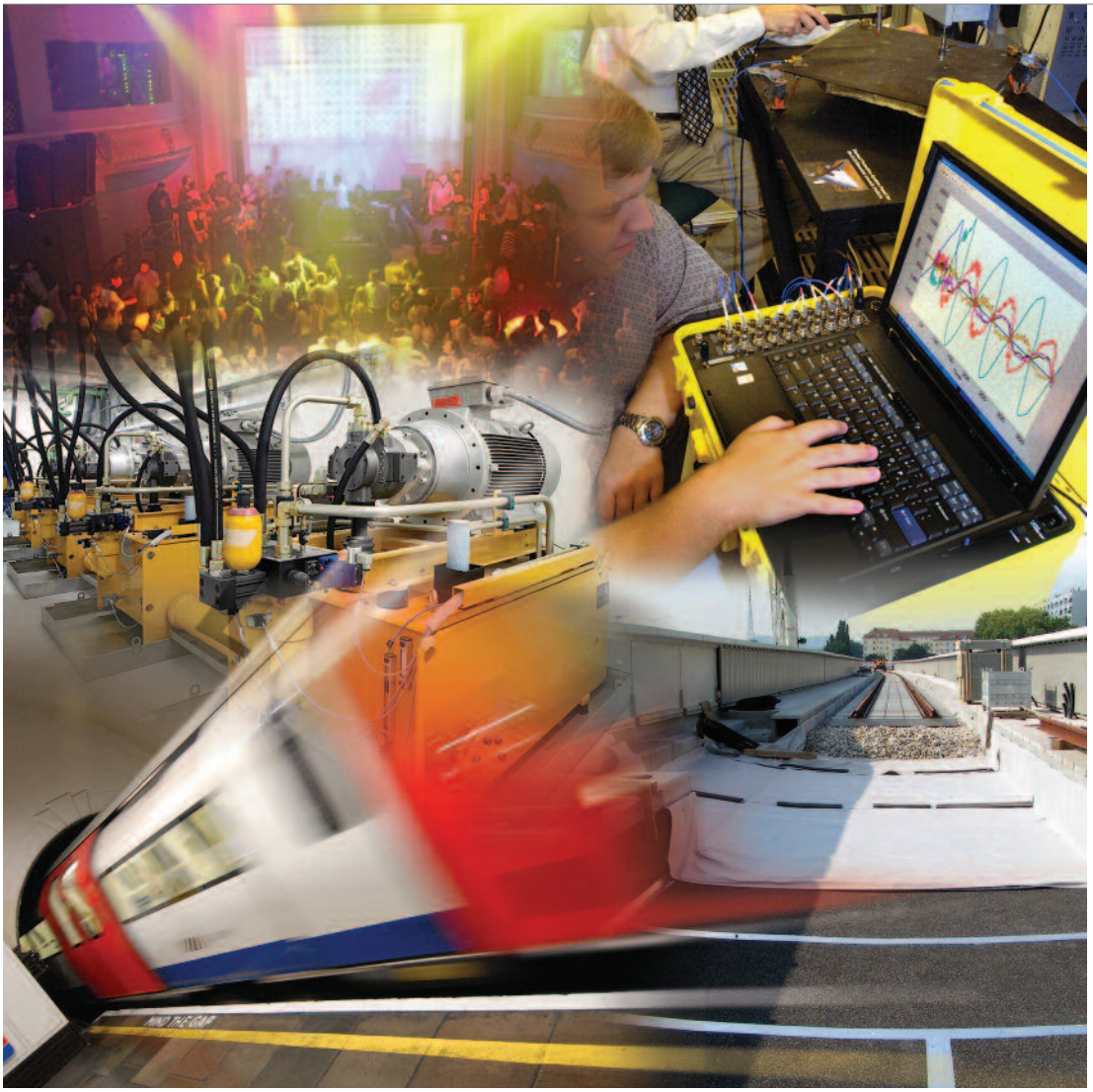
Thermal Economics™
THERMAL & ACOUSTIC INSULATION TECHNOLOGY

ISOVIBRA - PRODUCT SELECTOR

Vibration Isolation products for domestic and commercial applications



Performance with Environmental and Economic benefits

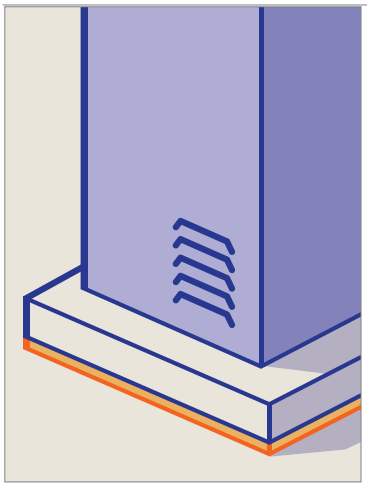
For help choosing the right product for your project please contact Thermal Economics Technical Department on 01582 544255

For all our Acoustic & Thermal insulation products visit: www.thermal-economics.co.uk

STRUCTURAL ISOLATION & VIBRATION CONTROL

The Isovibra range of products has been specifically designed for use in vibration isolation applications

Isovibra products can be used in full-surface, strip and point load bedding applications. They are available in various densities, thicknesses and hardnesses and can also be used in multiple layers. This means that they can be used in a wide range of situations and allow specific 'problem' frequencies to be targeted. It is also possible to use Isovibra products in vertical applications (such as isolating basement walls). Where required these products can be provided with pre-prepared self adhesive surfaces.



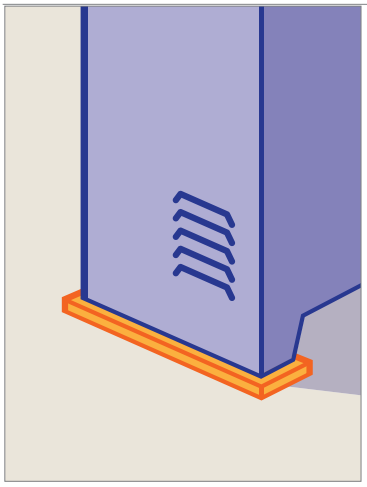
Full-surface bedding:

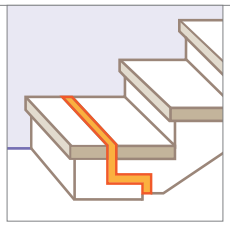
By fully isolating a surface the vertical forces are evenly distributed giving rise to low compressive stresses.

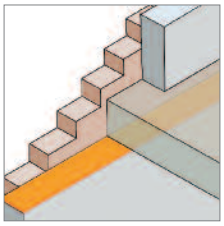
Typical Applications:

Beneath raft foundations
Beneath machine platforms
Isolating vertical wall surfaces

Typical Compressive Stress Range:
Very low - Medium







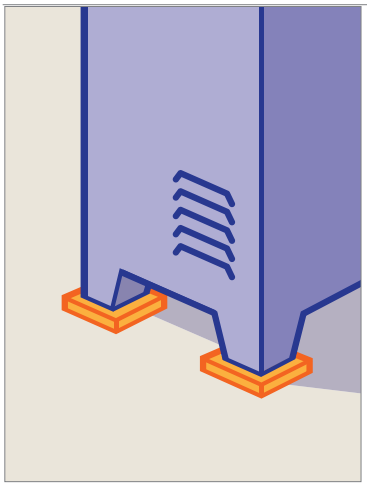
Strip layer bedding:

Uniformly distributed line loads focus the force onto a smaller area leading to increased compressive stresses. Strips can be made to order or cut to size on site.

Typical Applications:

Beneath strip foundations (walls)
Beneath strip machine foundations
Isolating vertical movement joints

Typical Compressive Stress Range:
Low - High



Point load bedding:

Applies to high concentration point loads that focus the force onto a relatively small area creating very high compressive stresses. Pads can be made to order or cut to size on site.

Typical Applications:

Isolating structural columns
Isolating Beam bearings
Beneath machinery support legs

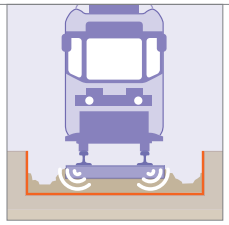
Typical Compressive Stress Range:
Medium - Very High

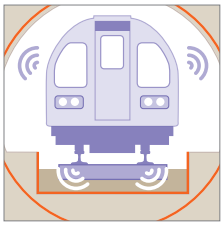
Choosing the right product

To choose the correct Isovibra product you must first understand the problem. To do so the disturbing frequency and the imposed load need to be identified, then a product with the appropriate compressive stress can be selected. For more information please contact the Thermal Economics Technical Department on 01582 544255.

Typical applications

- **Foundation & Basement Isolation**
- **Machine & Plant Isolation**
- **Industrial Floor Isolation**
- **Structural Isolation**
- **HVAC Isolation**
- **Floating Floors**



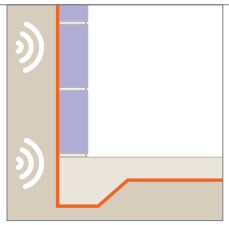


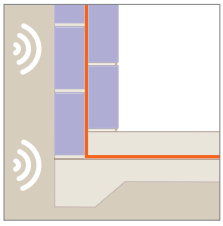
Re-radiated Noise:

Vibration energy in the ground can excite structure foundations and manifest itself as re-radiated noise. Structures built near train lines and busy roads are susceptible to this problem. Isovibra can be used to isolate the foundations preventing re-radiating noise passing through the structure.

Example- New housing development built near a train line.

Disturbing Frequency = 63Hz
Pressure = 0.1N/mm^2
Isolating Product = 5mm Isovibra Rubber Soft



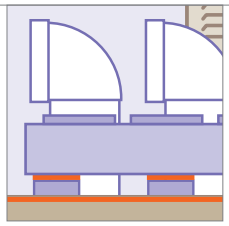


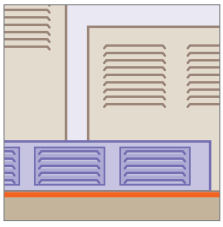
Slab Isolation:

The creation of a floating slab prevents vibration spreading throughout the structure. Using Isovibra in this type of application can also prevent vibration energy re-radiating to nearby structures.

Example- Isolation of ground floor slab in cinema to prevent the transfer of sound between adjoining screens.

Disturbing Frequency = 25Hz and lower
Permanent Load = 5.6 kN/m^2
Variable Load = 4.0 kN/m^2
Isolating Product = Isovibra Rubber Profile 25/7





Machinery & Plant Isolation:

Vibration energy from machinery and plant can radiate throughout a structure. In extreme cases this can cause damage requiring expensive remedial work. Isovibra can be used to isolate individual machines or groups of machines that are situated on the same slab.

Example- Plant situated on upper floor of tower block.

Disturbing Frequency = 50Hz
Machine Weight = 1 Ton
Loading Capacity = 5KN/m^2
Isolating Product = 2 layers of Isovibra Rubber Profile 25/7
Isolation = 92.7%

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ISOVIBRA RUBBER

Isovibra Rubber products are available in various densities and thicknesses. These products can be used in single or multiple layers. This means that it is possible to target specific problem frequencies across a wide range of loads.

The graphs below can be used to select the correct product for your application based upon the required deflection under load and the natural frequency.

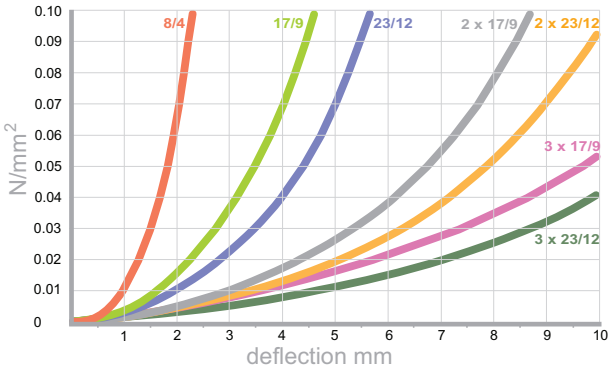
Isovibra Rubber Profile

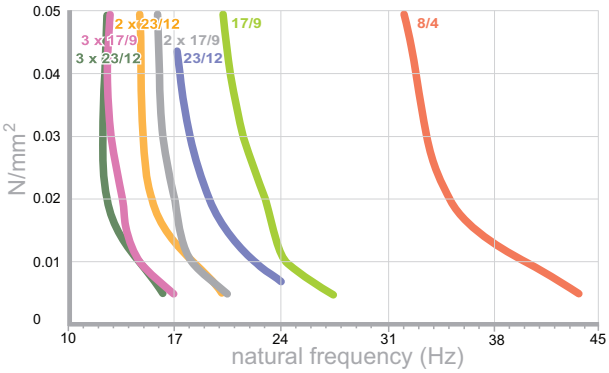
An insulation material made from high-quality recycled rubber offered in several texturing and thickness options.

Its upper side is smooth with light granular texturing; its lower side is available with different dimple patterns.

Compressive stresses range: Very Low

0.005 N/mm^2 to 0.050 N/mm^2.



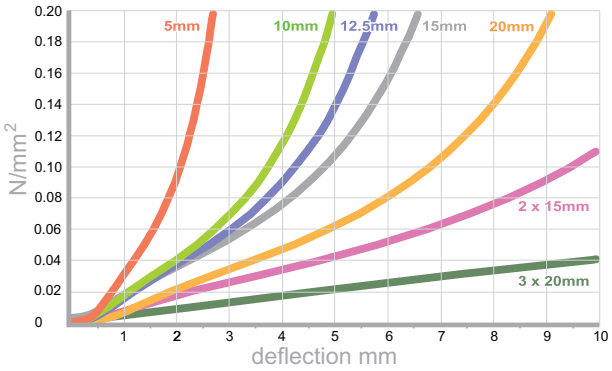


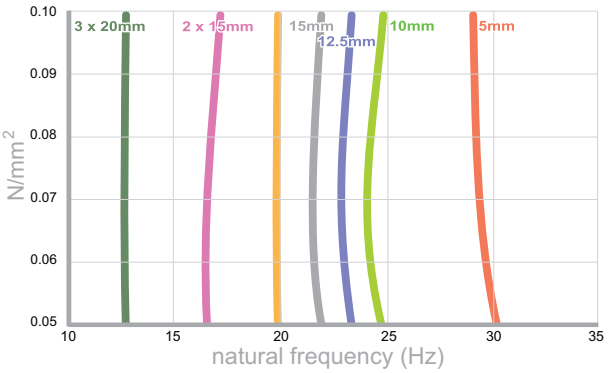
Isovibra Rubber Soft

A lightweight and soft insulation material made from fine-grained recycled cellular rubber. Its upper and lower sides are smooth.

Compressive stresses range: Low

0.05 N/mm^2 to 0.10 N/mm^2.



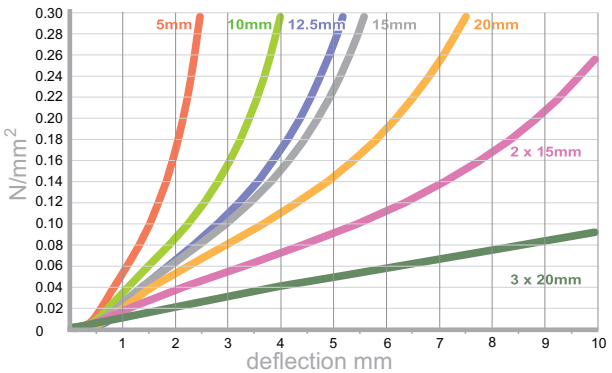


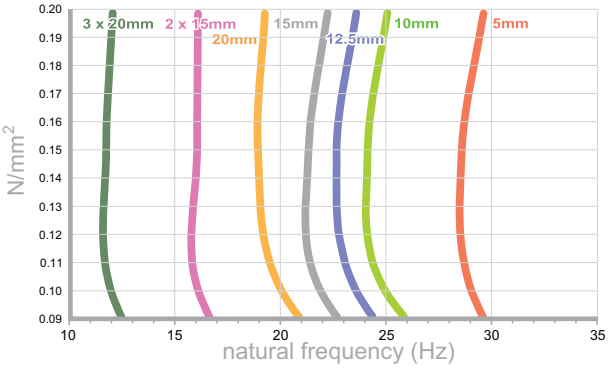
Isovibra Rubber Medium

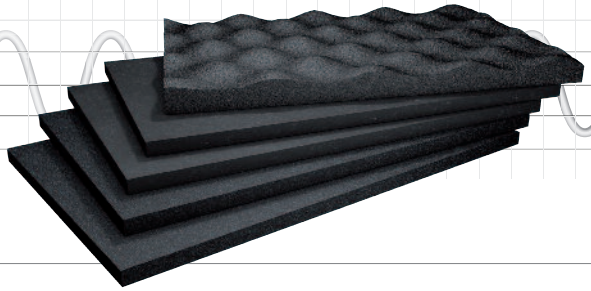
A soft, smooth faced insulation material made from fine-grained recycled cellular rubber.

Compressive stresses range: Medium

0.10 N/mm^2 to 0.20 N/mm^2.







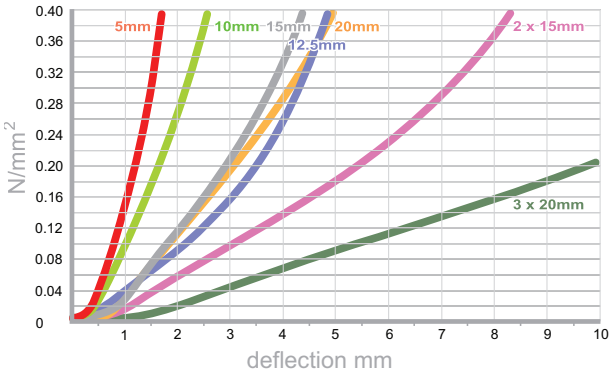
N/mm² x 10.2 = Kgf/cm²

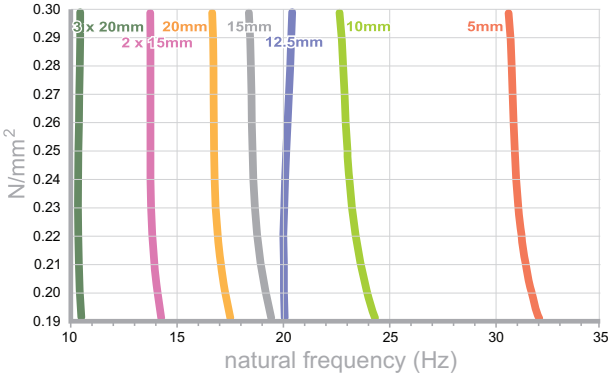
Isovibra Rubber Hard

A semi-hard insulation material made from a blend of fine-grained recycled cellular rubber and high quality recycled rubber. Its upper and lower sides are smooth.

Compressive stresses range: High

0.20 N/mm² to 0.30 N/mm².



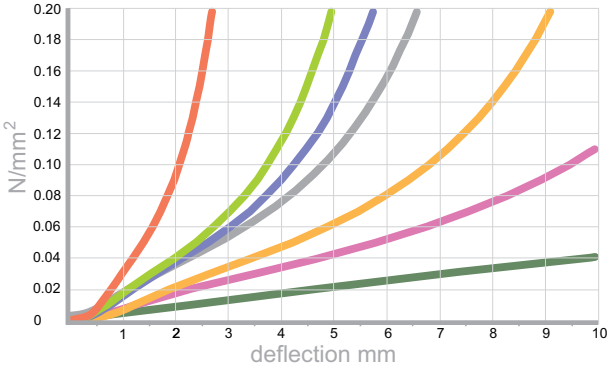


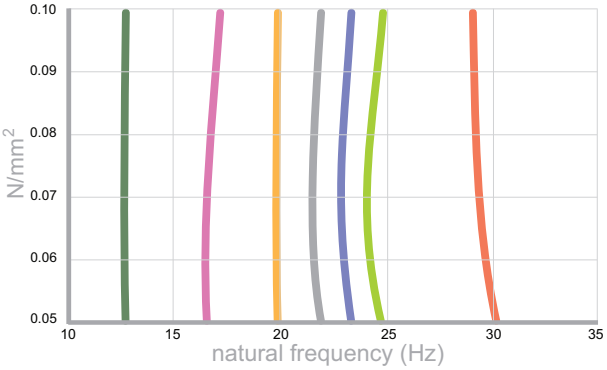
Isovibra Rubber Ultra

A hard insulation material made from high-quality recycled rubber. Its upper and lower sides are smooth.

Compressive stresses range: High

Greater than to 0.3 N/mm².



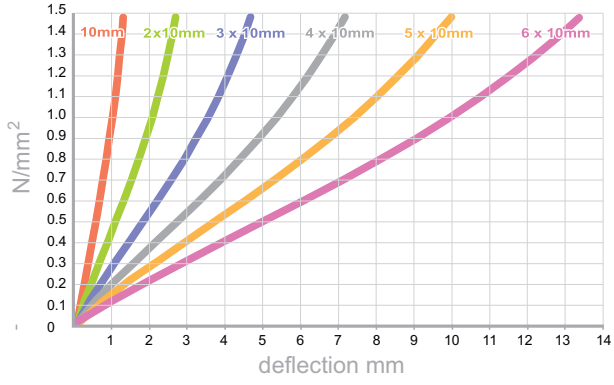


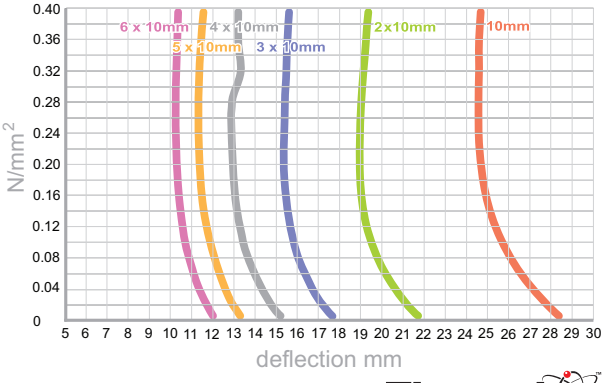
Isovibra Rubber Supreme

A hard insulation material made from high-quality recycled rubber. Its upper and lower sides are smooth.

Compressive stresses range: Very High

Greater than 1.0 N/mm².





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ISOVIBRA FOAM

Isovibra Foam products are available in various densities and thicknesses. The spring characteristic properties of the Isovibra Foam range provide excellent vibration isolation across a wide range of loads and make it ideal for use in applications where temporary peak loads will be applied.

The graphs below can be used to select the correct product for your application based upon the required deflection under load and the natural frequency.

Isovibra Foam 15

A soft insulation material made from Polyurethane elastomer.

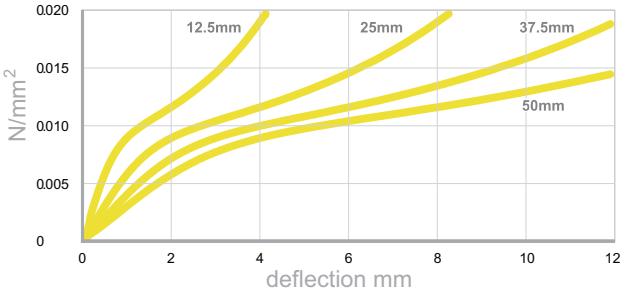
Colour: Yellow

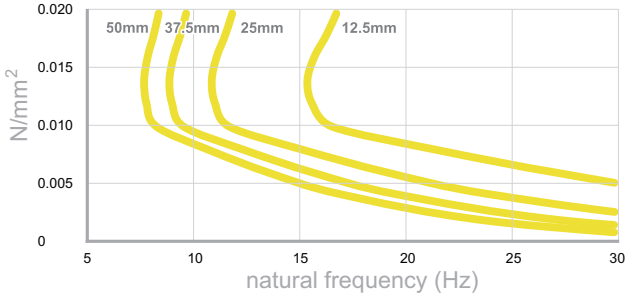
Optimum compressive stresses range: Very low

Up to 0.010N/mm^2 static pressure

Up to 0.015N/mm^2 dynamic pressure

Vibrafoam 15





Isovibra Foam 22

A soft insulation material made from Polyurethane elastomer.

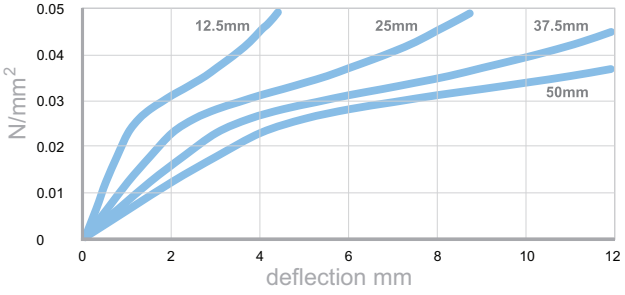
Colour: Blue

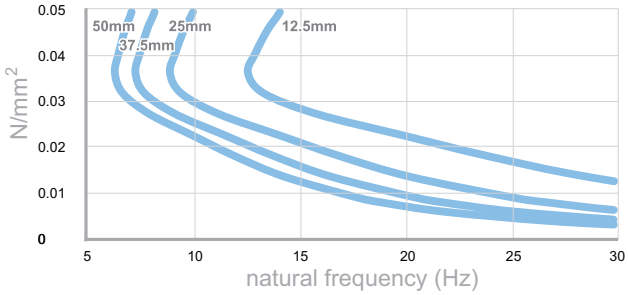
Optimum compressive stresses range: Very low

Up to 0.025N/mm^2 static pressure

Up to 0.035N/mm^2 dynamic pressure

Vibrafoam 22





Isovibra Foam 30

A semi hard insulation material made from Polyurethane elastomer.

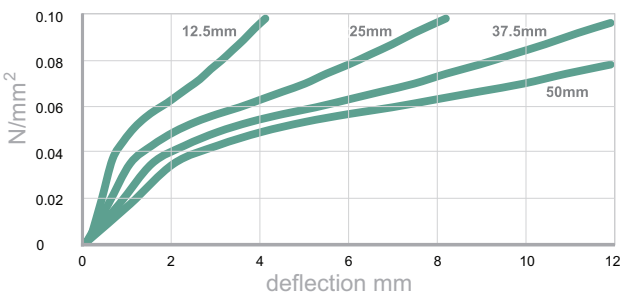
Colour: Green

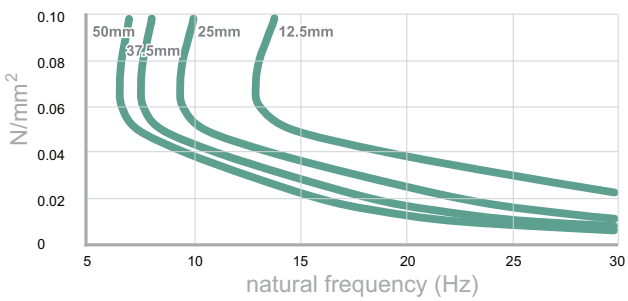
Optimum compressive stresses range: Low

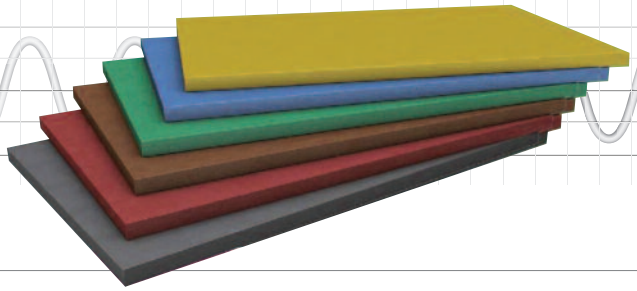
Up to 0.040N/mm^2 static pressure

Up to 0.08N/mm^2 dynamic pressure

Vibrafoam 30







N/mm² x 10.2 = Kgf/cm²

Isovibra Foam 40

A semi hard insulation material made from Polyurethane elastomer.

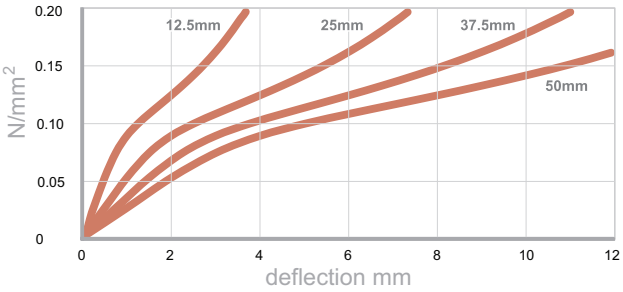
Colour: Brown

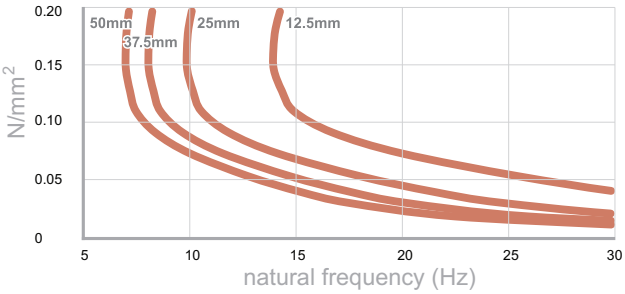
Optimum compressive stresses range: Medium

Up to 0.075N/mm² static pressure

Up to 0.15N/mm² dynamic pressure

Vibrafoam 40





Isovibra Foam 51

A hard insulation material made from Polyurethane elastomer.

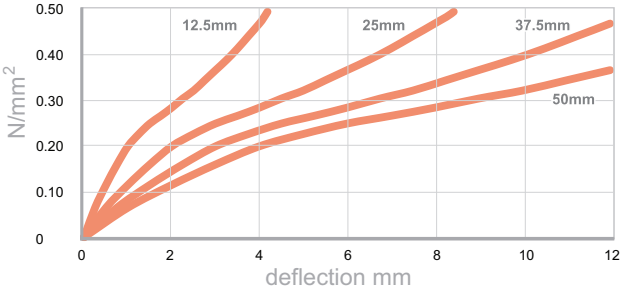
Colour: Red

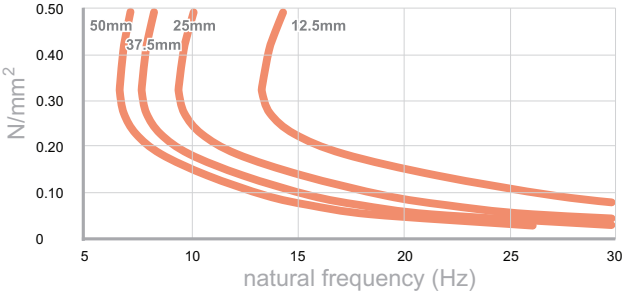
Optimum compressive stresses range: Medium/High

Up to 0.15N/mm² static pressure

Up to 0.30N/mm² dynamic pressure

Vibrafoam 51





Isovibra Foam 68

A hard insulation material made from A hard insulation material made from Polyurethane elastomer.

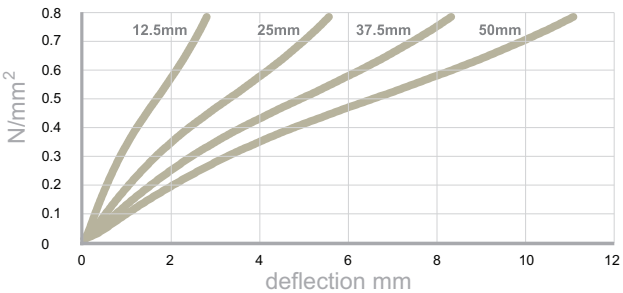
Colour: Grey

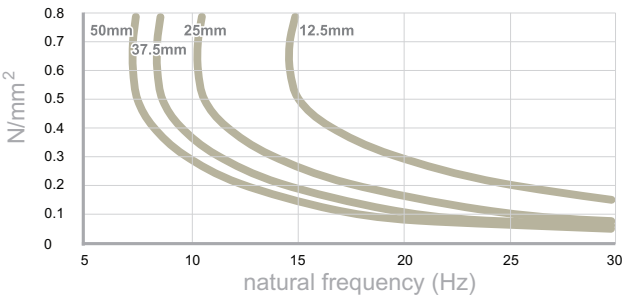
Optimum compressive stresses range: High

Up to 0.40N/mm² static pressure

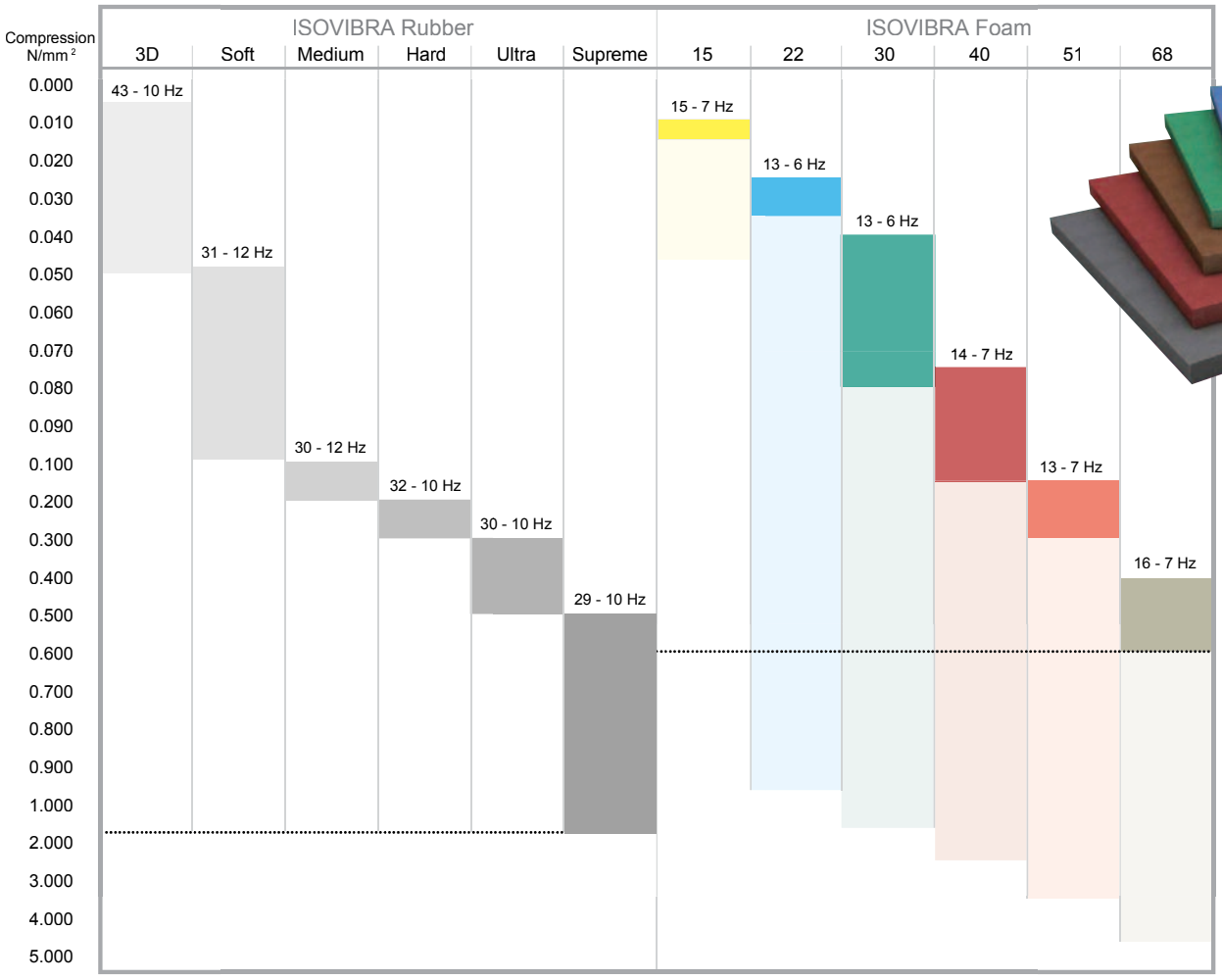
Up to 0.60N/mm² dynamic pressure

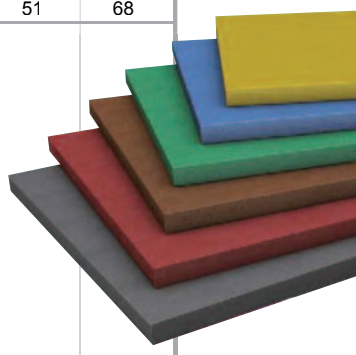
Vibrafoam 68





ISOVIBRA RUBBER & FOAM PRODUCT SELECTOR TABLE





*Products for higher loads available on request

Isovibra products are used for the isolation of low frequency vibration and noise levels higher than those normally encountered in domestic environments.

They form a very effective barrier for the protection of walls and floors from ground and structure transmitted vibration.

Isovibra products are available in a range of thicknesses and densities and can be applied in combined layers to facilitate the accurate isolation of the disturbing frequencies.

FURTHER INFORMATION

We would be glad to provide you or your acoustic advisor with any further detailed product information that may be required.

ISO 14001 Environmental
ISO 9001 Quality

BREEAM® FASTRACKCAD® ARCHITECTURAL CAD DATABASES robustdetails

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