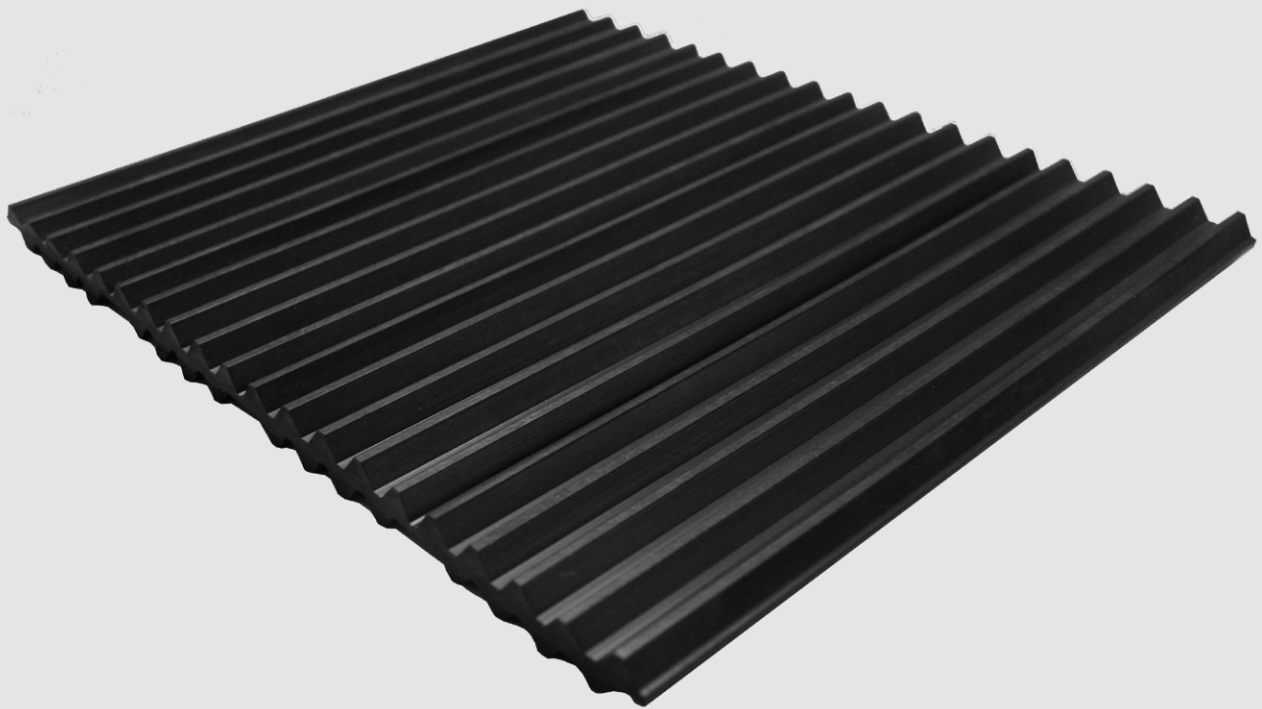




Vibration damping

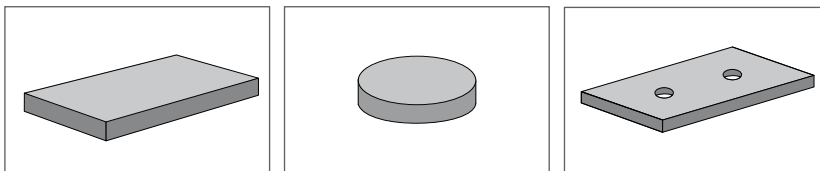
Infrastructure | Buildings | Industrial structures

VIBRAX[®] – Elastomeric bearings



VIBRAX[®] DAMP B

Vibration-isolating bearings





Vibration damping

Applications and key data

General

VIBRAX®DAMP B is a profiled unreinforced deformation bearing with special properties in relation to structure-borne sound insulation and vibration isolation.

VIBRAX®DAMP B is suitable in particular for providing bearing support to prefabricated structural components, such as:

- Stairs
- Landings
- Balcony slabs

The elastomeric bearing can facilitate or compensate longitudinal and transverse movements, and rotations. VIBRAX®DAMP B consists of a high-quality elastomer mix, has a long service life and is maintenance-free.

Structural positioning of the bearings

The bearings should be located in the reinforced area of the connecting structural components.

Function

- Damping bearing for prefabricated concrete elements, combating the transmission of vibrations and structure-borne noise

Permissible pressure

- $\leq 10 \text{ N/mm}^2$

Range of application

- $0.3 - 0.7 \text{ N/mm}^2$

Damping performance

- Up to 20 dB for thickness $t = 10 \text{ mm}$ and excitation at 100Hz
- Up to 26 dB for thickness $t = 20 \text{ mm}$ and excitation at 100Hz

Materials

- EPDM
- Hardness $60 \pm 5 \text{ Shore A}$

Shape and dimensions

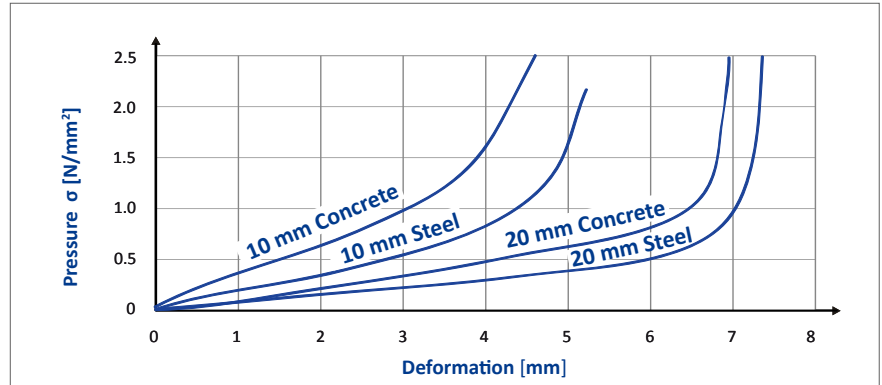
- Linear bearing, width up to 200 mm
- Thickness 10 resp. 20 mm



Design criteria

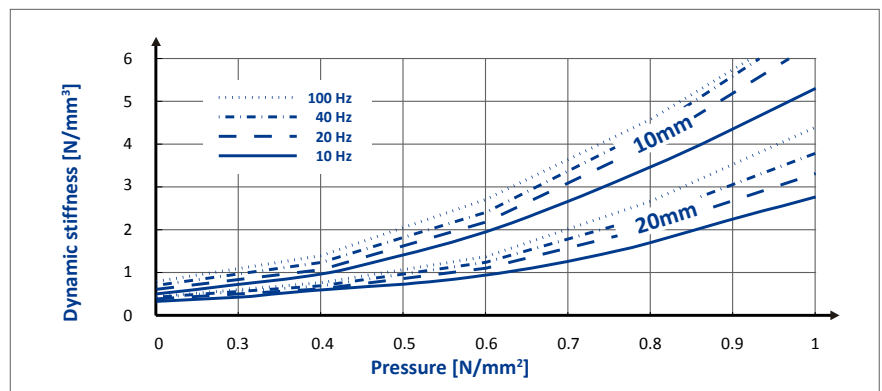
Compression curves

The load-deformation behaviour of the bearing is strongly influenced by the roughness of the connecting surface. The lowest friction and thus the largest deflection is to be expected against polished steel. The deflection values in the presented range of between 0 and 1.0 N/mm² have therefore been determined on the basis of placing against the most commonly used surfaces such as polished steel plates and concrete.



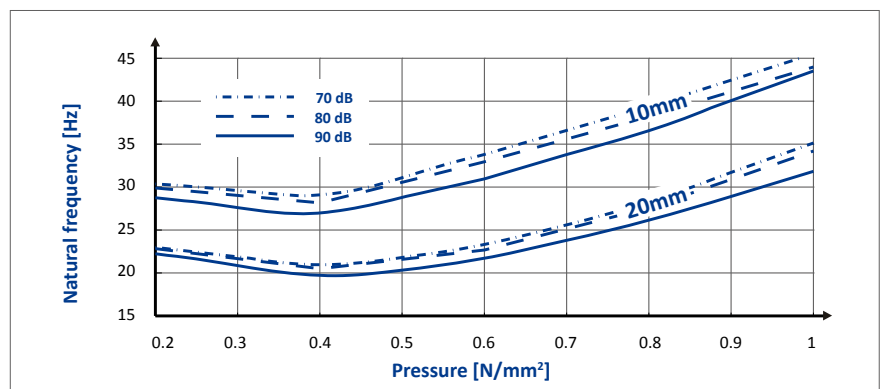
Stiffness

In relation to pressure, for excitation at 10, 20, 40 and 100 Hz and at 90 dB (reference value $v_o = 5 \times 10^{-5}$ mm/s)



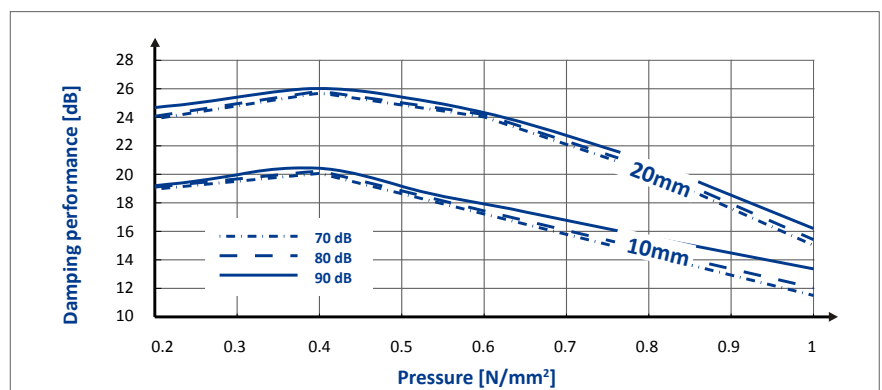
Natural frequency

In relation to pressure, for excitation at 70, 80 and 90 dB (reference value $v_o = 5 \times 10^{-5}$ mm/s)



Damping performance

In relation to pressure, for excitation at 100 Hz and at 70, 80 and 90 dB (reference value $v_o = 5 \times 10^{-5}$ mm/s)





Vibration damping

Delivery, installation and tendering

Delivery format

VIBRAX®DAMP B has a thickness of 10 and 20 mm. It is normally delivered in rolls of width 200 mm and length 10 m. Tailored sections, with pre-drilled holes according to customer specifications, can also be supplied on request.

Assembly

Before laying of VIBRAX®DAMP B, the surface on which it is to be laid must be checked for flatness. Any protrusions must be removed, and suitable grout should be used if necessary to create a flat surface. The bearing can then be laid, ensuring that the surface is clean and grease-free. VIBRAX®DAMP B can be simply butt-jointed without any further measures.

Suggested text for tender requests

Supply and installation of unreinforced sound insulation and deformation bearings, on flat, firm surface

Brand: VIBRAX®DAMP B

Material: EPDM

Permissible pressure: 10 N/mm²

Range of application as sound insulation: 0.3 to 0.7 N/mm²

Bearing thickness: ... mm

Dimensions (L x W): ... mm x ... mm

Units : Pieces.

Supplier:

mageba sa

Solistrasse 68

CH-8180 Bülach

Tel.: +41-44-872 40 50

Fax: +41-44-872 41 29

Email: hochbau@mageba.ch

www.mageba.ch

Surcharge for special designs (e.g. round bearings / with holes)

to Item

Brand: VIBRAX®DAMP B

According to drawing ...

tailored according to the customer's wishes

Project references



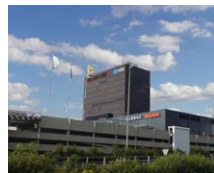
Amiens, FR



Municipal library of Stuttgart, DE



Convention Center, HK



Shopping Centre, CH



Hurghada Airport, EG



Stade de Suisse, CH

Product groups (building construction)



Bearings



Vibration isolation



Expansion joints



Special products

mageba
Switzerland www.mageba.ch