

1. Influence of the shape factor

The stiffness of elastomers depends on the geometry of the bearings.

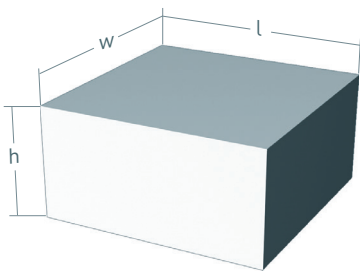
The shape factor q is defined as the ratio of the loaded area to the surface area of the bearing.

In our technical data sheets, we refer in detail and graphs on a valid form factor.

For other form factors, correction values must be taken into account for the information. These correction values can be found on our product data sheets on page 3.

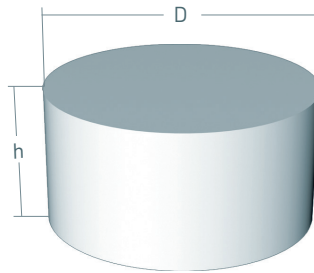
Determination of the shape factor q for:

Cuboid



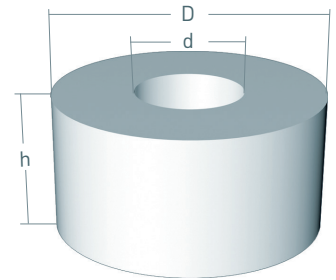
$$q = \frac{w \cdot l}{2 \cdot h \cdot (l + w)}$$

Cylinder



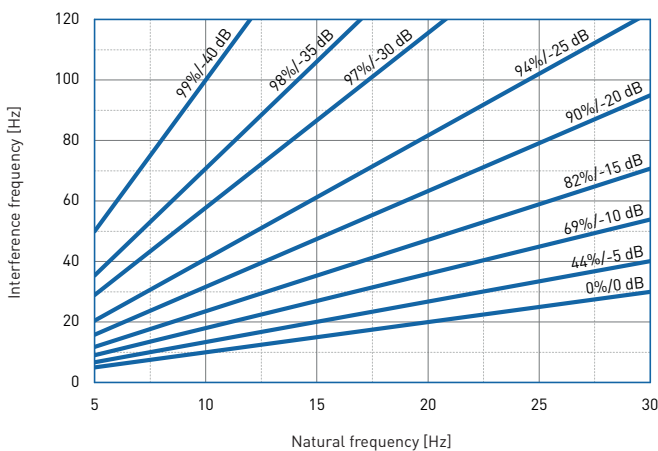
$$q = \frac{D}{4 \cdot h}$$

Hollow cylinder



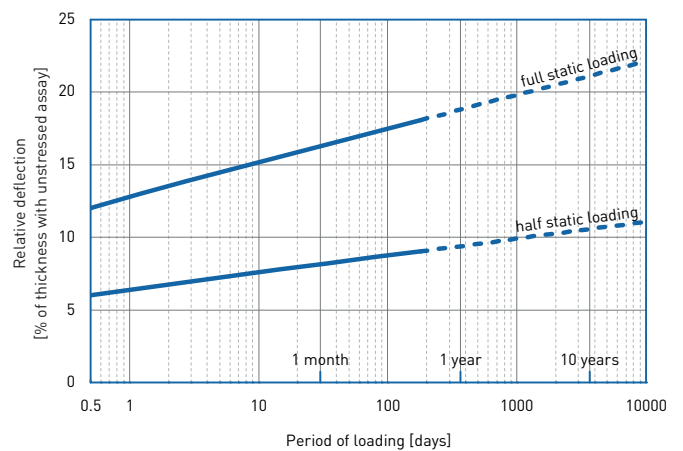
$$q = \frac{D - d}{4 \cdot h}$$

2. Vibration isolation



Isolation efficiency percentage and sensitivity level in decibels for an elastic bearing on a rigid substrate.

3. Creep behaviour



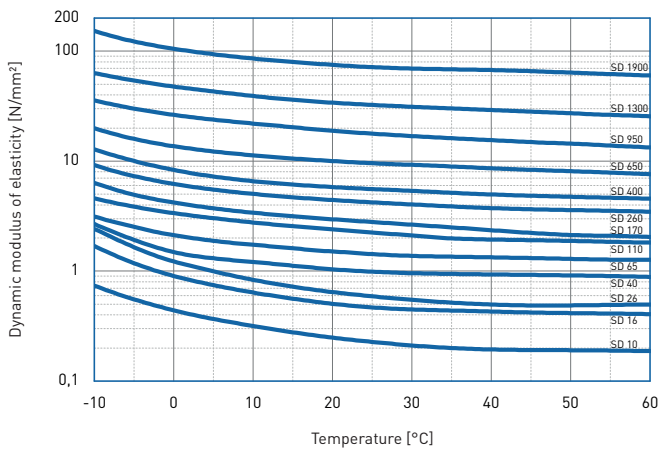
Under consistent loading, the deformation of elastomers increases. The static load ranges of PURASYS **vibrafoam** have been chosen in that way that all types have the same creep behaviour.

All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed. We reserve the right to amend the data.

4. Influence of the temperature

DMA studies (Dynamic Mechanical Analysis) in the linear range of the spring characteristic

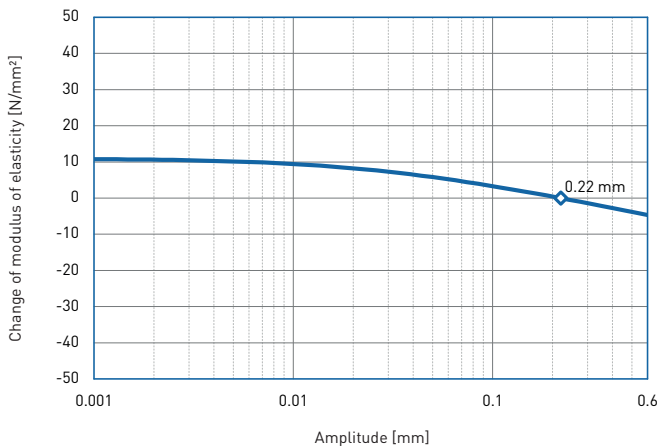
Temperature dependence of the dynamic modulus of elasticity



Temperature dependence of the loss factor

	-10 °C	0 °C	10 °C	23 °C	30 °C	40 °C	50 °C	60 °C
SD 10	0.57	0.45	0.35	0.25	0.22	0.19	0.17	0.15
SD 16	0.65	0.48	0.35	0.24	0.21	0.18	0.17	0.15
SD 26	0.54	0.43	0.33	0.22	0.18	0.15	0.14	0.13
SD 40	0.37	0.29	0.22	0.15	0.12	0.10	0.09	0.09
SD 65	0.44	0.30	0.22	0.18	0.17	0.15	0.14	0.13
SD 110	0.26	0.18	0.15	0.12	0.11	0.10	0.10	0.09
SD 170	0.34	0.22	0.16	0.13	0.12	0.11	0.10	0.10
SD 260	0.29	0.19	0.14	0.11	0.10	0.09	0.08	0.08
SD 400	0.28	0.18	0.13	0.10	0.09	0.08	0.07	0.07
SD 650	0.28	0.18	0.13	0.10	0.09	0.08	0.08	0.07
SD 950	0.23	0.16	0.12	0.10	0.09	0.08	0.08	0.08
SD 1300	0.19	0.13	0.11	0.09	0.08	0.08	0.07	0.07
SD 1900	0.24	0.15	0.11	0.09	0.08	0.07	0.07	0.06

5. Amplitude dependence



The graph indicates a typical curve of the dependence of the dynamic modulus of elasticity of the vibration amplitude.

The reference value is 0.22 mm.

In comparison with other elastic materials, such as e.g. bound rubber granules, one can neglect the amplitude dependence in PURASYS **vibrafoam** products.

DISCLAIMER:

The information provided is intended only as a summary and general overview on matters of interest. The information is not intended to be comprehensive nor does it constitute expert advice. KRAIBURG PuraSys shall not be liable for incidental and/or consequential damages directly or indirectly sustained, nor any loss caused by not complying with relevant industry/product standards and improper use of any PURASYS **vibrafoam** products. Due to varying construction methods, any other circumstances not stated above should be brought to the attention of KRAIBURG PuraSys for review. For suitability to the prevailing site conditions, it is advised that certified testing should be conducted. It is recommended to seek further advice on your application with our technical staff prior to use.

The data sheet is not subject to any change service! All information is without guarantee.
Latest version of this document available on www.kraiburg-purasys.com

All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
We reserve the right to amend the data.