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VIBRATIONSDÆMPENDE PLADER 2019

Vibrationsafdelingen

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Afdelingen i Hvidovre, som beskæftiger ca. 15 medarbejdere, har ansvar for det nordiske marked.

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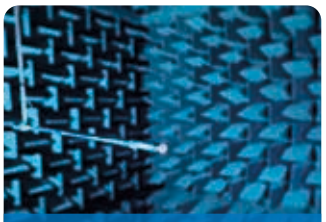
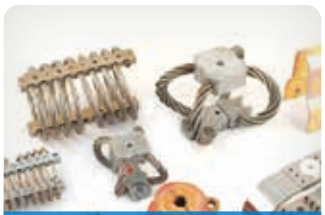
AUDIOMETRIRUM


LYDDØDE RUM


VIBRATIONSDÆMPERE


RUM MED SÆRLIGE AKUSTISKE KRAV


LYDSTUDIER OG KONTROLRUM


CHOKDÆMPERE


PANELSYSTEMER OG STØJINDKAPSLINGER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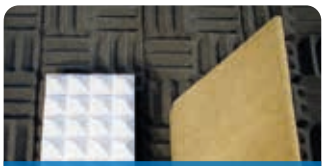
LYDABSORBENTER, PLADEDÆMPNING OG LYDISOLERING


TESTFACILITETER TIL FLY OG HELIKOPTERE


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Indholdsfortegnelse

About Vikafoam

The material and its physical properties

"Due to its properties, Vikafoam is suitable for almost any application."

Vikafoam is a cellular elastomer made of a special kind of polyetherurethane. Elastomer springs are used in mechanical engineering and in the construction sector to isolate and/or damp vibration levels. Vikafoam elastomers exhibit outstanding characteristics as both pressure and compression-loaded springs.

For almost every application, there are 13 basic types of Vikafoam available, ranging from VF 10 to VF 1900 (Fig. 1). The desired requirements can be achieved easily through an appropriate selection of Vikafoam types, support surface area and construction height.

Vikafoam is available as mats for max-imum floor coverage, but can also be obtained in the form of technical moulded parts.

If necessary, special types with exactly matched strength can be produced. This defines special properties for the material. In contrast to non-cellular elastomers, the fine cellular structure of Vikafoam contains enclosed volumes of gas. This makes the material volume-compressible in response to static as well as to dynamic loads. It is therefore suitable for use on large surface areas in constructions made of locally mixed concrete.

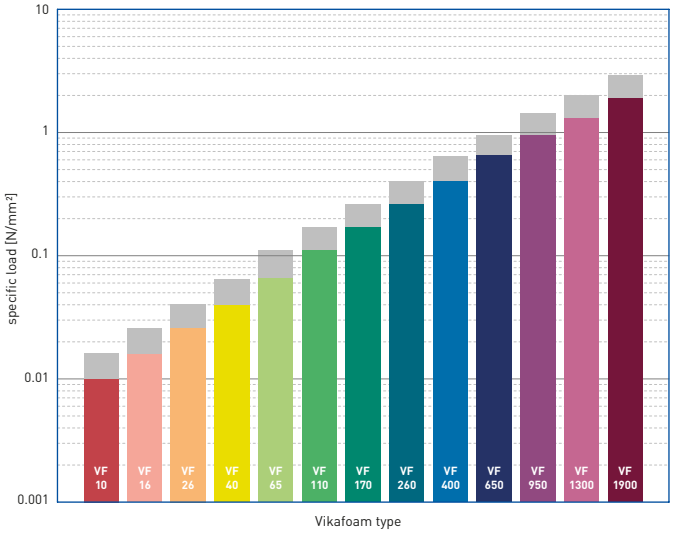

Fig. 1: The Vikafoam materials

The static load deflection curve

Fig. 2 shows the quasi-static load deflection curve from a pressure test conducted on Vikafoam material.

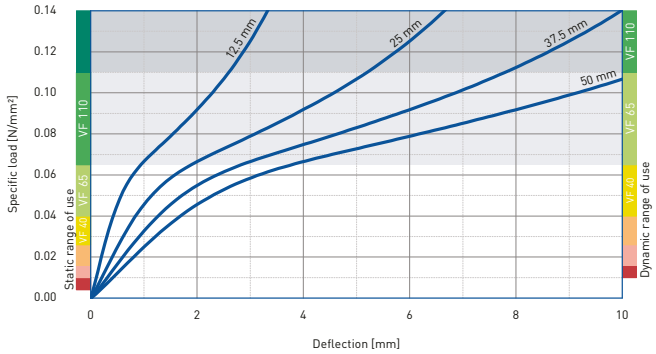

Fig. 2: Quasi-static load deflection curve of a Vikafoam material (VF 65)

Under low compression, the material exhibits an almost linear characteristics curve. The long-term static loading of these flexible bearings should lie within this range. The left scale shows the optimum static application range for each type of Vikafoam.

As loading on these bearings increases, the spring characteristic curve trends downwards (light-grey area). Vikafoam reacts in a very soft way to additional static and dynamic forces. In this dynamic application range, vibration isolation is at an optimum level. The right-hand scale indicates the optimum dynamic range for each type of Vikafoam.

As compression levels rise, the characteristic curve follows a progressive line (dark grey area). Due to the specific properties of Vikafoam, the material is unaffected by brief peak loads. The polymer structure also makes it possible, after brief high peak loads, for the material to return almost to its original position. The compression set defined in EN ISO 1856 is less than 5% for most types of Vikafoam (please refer to the product data sheets for more precise details).

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About Vikafoam

The dynamic properties

Fig. 3 shows the relationship between the quasi-static and the dynamic modulus of elasticity (for 10 Hz and 30 Hz) at given load levels.

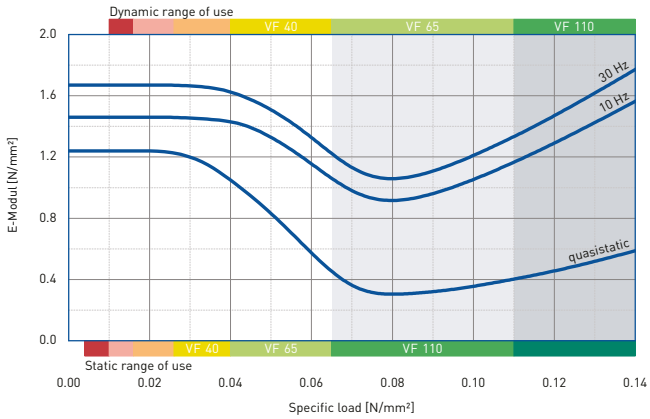

Fig. 3: Modulus of elasticity of a Vikafoam material (VF 65)

Due to its polymer structure, the intrinsic damping in Vikafoam causes the dynamic modulus of elasticity to exhibit higher values than the static modulus of elasticity. Depending on frequency and compression level, the strength reinforcement factor of Vikafoam materials measures 1.5 - 4.

The characteristic curve shown here for the quasi-static and the dynamic modules of elasticity indicates a minimum in the central dynamic application area. Despite slight spring compression action, the material at this minimum still exhibits optimum vibration-isolating properties.

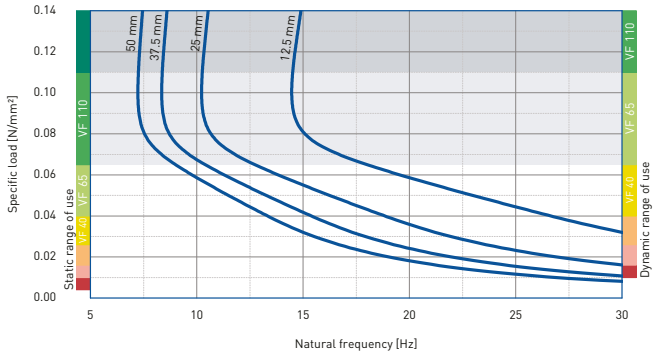

Fig. 4: Natural frequencies of a Vikafoam material (VF 65)

The dynamic characteristics of the modulus of elasticity is frequency-dependent. In practice, a good approximation for most applications is to select the dynamic modulus of elasticity for 10 Hz. Fig. 4 shows the computed natural frequency of a system comprising a compact mass and a flexible mounting made of Vikafoam, dependent on load (basis: dynamic modulus of elasticity at 10 Hz). The desired natural frequency of the system can be achieved through an appropriate choice of construction height.

The damping characteristics

Vikafoam materials are damped spring elements. This means that, when Vikafoam materials are subjected to alternating dynamic loads, a proportion of the mechanically introduced energy is converted into heat. The damping characteristics are described by the mechanical loss factor η.

For Vikafoam materials, these values are between 0.09 and 0.25 (please consult the product data sheets for more precise details).

About Vikadyn

The material and its physical properties

"Due to its superlative dynamic properties, Vikadyn is also suitable for exceptionally challenging applications."

Vikadyn is a closed-cell elastomer and it is made of a special kind of polyetherurethane. Thanks to its structure, this material absorbs almost no fluids and can therefore be used in pressing groundwater. There are 5 basic types of Vikadyn, VD 75 to VD 1500, to suit virtually any application scenario (Fig. 5). The desired requirements can be achieved easily through an appropriate selection of Vikadyn types, support surface area and construction height.

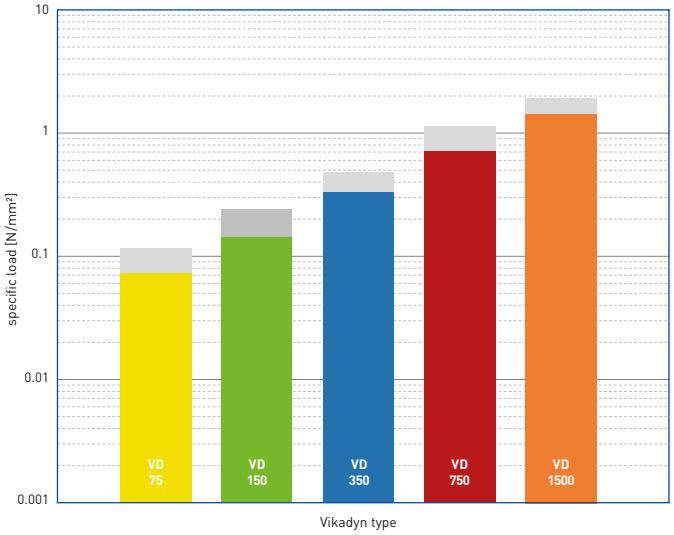

Fig. 5: The Vikadyn materials material

The static load deflection curve

Fig. 6 shows the quasi-static load deflection curve from a pressure test conducted on Vikadyn material.

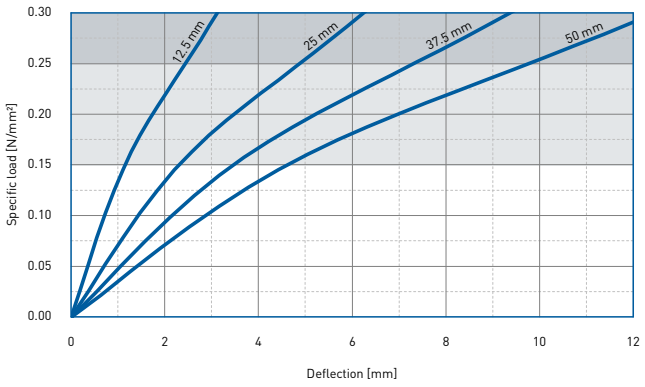

Fig. 6: Quasi-static load deflection curve of a Vikadyn material (VD 150)

As with the Vikafoam types, the load deflection curve of Vikadyn types can be sub-divided into three areas. The linear characteristic curve in the static working area follows a ‚degressive', i.e. downward-trending characteristic curve in the dynamic operating range (light grey area). At higher levels of compressive force, the characteristic curve begins to follow a "progressive", i.e. upward-trending line (dark grey area).

The dynamic properties

Fig. 7 shows the quasi-static and the dynamic modulus of elasticity (for 10 Hz and 30 Hz) at given load levels.

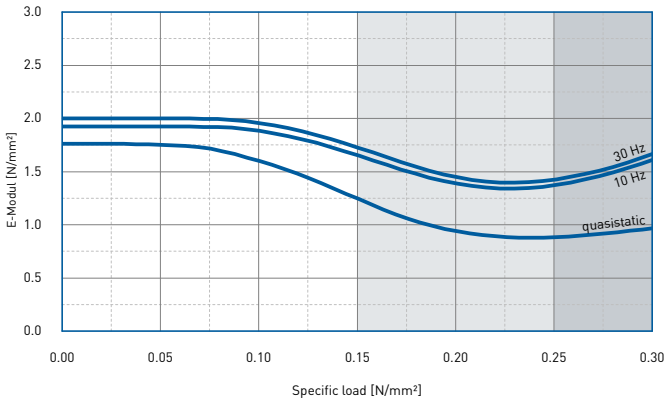

Fig. 7: Modulus of elasticity of a Vikadyn material (VD 150)

Vikadyn materials exhibit very small rigidity-reinforcing factors and are therefore suitable for vibration-isolating applications, even when these involve high dynamic requirements.

Fig. 8 shows the calculated natural frequency of a system consistent of a compact mass and an elastic bearing made of Vikadyn, dependent upon the loading level (basis: dynamic modulus of elasticity at 10 Hz). With Vikadyn, the systems involved in vibration damping can be tuned very low. This achieves highly effective vibration isolation.

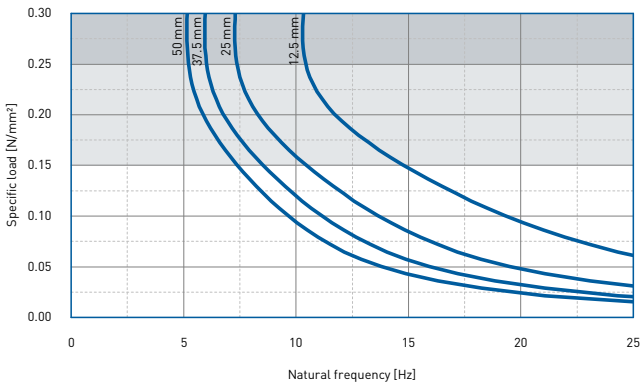

Fig. 8: Natural frequencies for a Vikadyn material (VD 150)

The damping characteristics

Vikadyn materials have very low levels of damping. The mechanical loss factor η for all types of Vikadyn is less than 0.06 (please refer to the product data sheets for more precise details).

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Shared properties and fundamentals of vibration isolation with elastomers

The shear modulus

Structural bearings made of Vikafoam/Vikadyn materials can be also subjected to shear forces. Always ensure that the shear modulus is less than the corresponding modulus of elasticity. This applies to dynamic as well as to static loadings. You can find information about these shear moduli in the relevant product data sheets. The quasi-static shear characteristic curve describes a relatively linear path.

The form factor

The rigidity and/or the load deflection curve of the cellular elastomer is dependent in part on the volumetric compressibility level of the Vikafoam/Vikadyn material. The more compact the types of Vikafoam/Vikadyn are, the lower are their respective levels of volumetric compressibility. The parameter of form factor q (= surface subjected to load/curved surface area) makes it possible to determine the values for suspension action, dynamic modulus of elasticity and natural frequency for the prevailing geometry of the bearing. The dependent relationships between these properties and the form factor are itemised on page 3 of the product data sheets for each type of Vikafoam/Vikadyn. These figures serve as correction values to the graphs on page 2 of the data sheets.

Static and dynamic properties when subject to continuous load

Elastic vibration bearings tend to exhibit load-dependent creepage characteristics. A continuous high level of load can alter the static and dynamic properties of an elastomer. However, the limit values stipulated for Vikafoam/Vikadyn are selected for the permitted levels of load in such a way that no significant change in the dynamic modulus of elasticity does occur, even over very long periods of time.

Influence of temperature

The operational temperature range of Vikafoam/Vikadyn materials should lie between -30°C and +70°C. The details provided in the product data sheets apply to normal climates (room temperature). Temperature-dependent changes in the dynamic modulus of elasticity at different temperature are itemised in the detailed data sheet, and must be considered in the design.

Dependency on amplitude

The dynamic properties of Vikafoam/Vikadyn materials are only slightly dependent on amplitude (see detailed data sheet) so this factor can be treated as insignificant.

Fire characteristics

The classification of Vikafoam/Vikadyn materials is defined in DIN EN ISO 11925-1 as Class E (EN 13501-1). There is no risk of corrosive gas fumes being created in the event of fires. The composition of these materials is similar to that of organic materials such as wood or wool.

Resistance to environmental influences and to chemicals

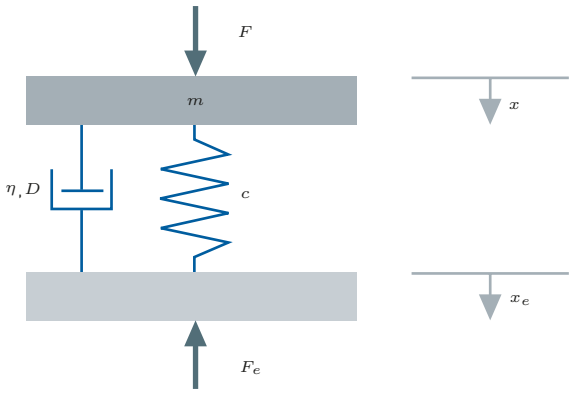
Vikafoam/Vikadyn materials are resistant to water, concrete, oils, and to diluted acids and lyes. More precise information about their resistance to environmental conditions and to chemicals can be found in the data sheet "Stability against chemical influences"

Vibration isolation

The transmission of undesirable mechanical vibrations to the structure requiring protection can be reduced by the right choice of vibration isolation material. With the help of a damped spring, depending on the type of insulation, the source can be isolated from the receiver, or vice versa. Since Vikafoam/Vikadyn materials are 'visco-elastic' construction elements, they perform the role of a damped/slightly damped spring.

The simple computational model

The simply physical model of a one-dimensional mass-spring system (Fig. 9) can be used to analyse many vibration problems.



F	acting dynamic force	[N]
m	oscillating mass	[kg]
c	dynamic spring constant	[N/mm]
F_e	dynamic contact force	[N]
x	deflection of the mass	[mm]
x_e	dynamic deflection of the abutment	[mm]
η	mechanical loss factor	[ ]
D	Lehr's damping factor	[ ]

Fig. 9: One-dimensional mass-spring system

Fundamentals of vibration isolation with elastomers

A free linear-damped oscillation is described by the following equation of motion:

Formula 1

$$\ddot{x} + 2 \cdot D\omega_0\dot{x} + \omega_0^2 x = 0$$

$\dot{x}$, $\ddot{x}$	first or second derivative of deflection with respect to time	[mm/s], [mm/s²]
ω_0	natural angular frequency of an undamped oscillation	[1/s]

The following relationship exists between the mechanical loss factor η and damping factor:

Formula 2

$$\eta = 2 \cdot D$$

If the mass is moved out of its rest position by an external force applied for a short time, this causes free, damped oscillations to occur at natural frequency f (Fig. 10). In a first approximation, the natural frequency of the damped system f' is essentially equal to the natural frequency of the undamped system f_0 ($\eta^2/4 \ll 1$):

Formula 3

$$f_0 = \frac{\omega_0}{2 \cdot \pi} = \frac{1}{2 \cdot \pi}\sqrt{\frac{c}{m}} = \frac{1}{T}$$

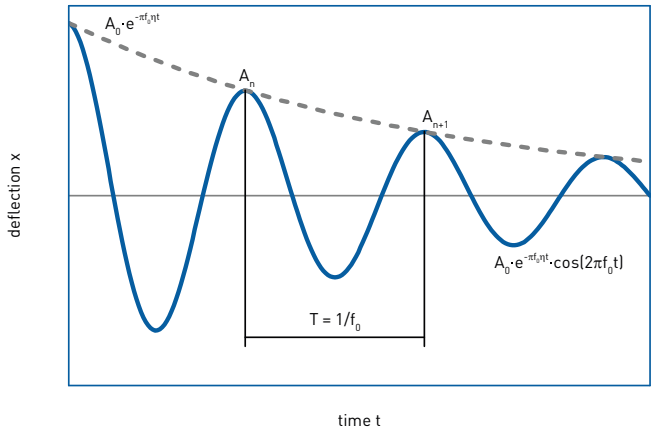


Fig. 10: Free damped vibration

f	excitation frequency	[Hz]
f'	natural frequency of a damped oscillation	[Hz]
f_0	natural frequency of an undamped oscillation	[Hz]
T	period duration	[s]
t	time	[s]

Due to the damping action, amplitude declines over time. The speed at which the amplitude diminishes depends on the damping or the mechanical loss factor. The relationship between damping and the ratio of two consecutive amplitude maximums is provided by:

Formula 4

$$\frac{A_{n+1}}{A_n} = e^{-2 \cdot D\pi} = e^{-\eta\pi}$$

A_n	amplitude of the n-th oscillation	[mm]

Transfer function

If the mass is excited into oscillation by a periodic force F with an amplitude of $\hat{F}$ and an excitation frequency f this gives rise to oscillations with an amplitude of $\hat{x}$:

Formula 5

$$\hat{x} = \frac{\hat{F}}{c}\frac{1}{\sqrt{\left[1 - \left(\frac{f}{f_0}\right)^2\right]^2 + \eta^2\left(\frac{f}{f_0}\right)^2}}$$

$\hat{x}$	deflection amplitude of a driven oscillation	[mm]
$\hat{F}$	amplitude of the acting dynamic force	[N]

In its attenuated condition, the mass oscillates at excitation frequency f. The excessive increase in amplitude at the resonance frequency of the system depends upon mechanical damping. Due to the damping action available in Vikafoam/Vikadyn materials, this peak of amplitude is however only small in magnitude.

Vibration isolation is described by transmission function V. With force excitation (source insulation) the ratio of dynamic mounting force $\hat{F}_e$ and the reciprocal force excitation level $\hat{F}$ are indicated. In contrast, with travel excitation (receiver isolation), the amplitude ratio of mass $\hat{x}$ and of the substrate $\hat{x}_e$ is considered. The transfer function therefore yields the mathematical relationship between the system response and the action exerted thereon, and is dependent on frequency ratio f/f_0 and on the damping.

Formula 6

$$V = \sqrt{\frac{1 + \eta^2\left(\frac{f}{f_0}\right)^2}{\left[1 - \left(\frac{f}{f_0}\right)^2\right]^2 + \eta^2\left(\frac{f}{f_0}\right)^2}}$$

V	transfer function	[ ]

The effectiveness of an elastic bearing is frequently quoted as an insulation efficiency rating I in percent or as transmission factor L in dB.

Formula 7 and 8

$$I = 100 \cdot \left[1 - \sqrt{\frac{1 + \eta^2\left(\frac{f}{f_0}\right)^2}{\left[1 - \left(\frac{f}{f_0}\right)^2\right]^2 + \eta^2\left(\frac{f}{f_0}\right)^2}}\right]$$

$$L = 20 \cdot log\left[\sqrt{\frac{1 + \eta^2\left(\frac{f}{f_0}\right)^2}{\left[1 - \left(\frac{f}{f_0}\right)^2\right]^2 + \eta^2\left(\frac{f}{f_0}\right)^2}}\right]$$

I	isolation efficiency rate	[%]
L	transmission factor	[dB]

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Fundamentals of vibration isolation with elastomers

Fig. 11 illustrates the transmission factor for three different mechanical loss factors. An insulation effect is only provided for frequency range $f/f_0 > \sqrt{2}$.

Below the √2 multiple of resonance frequency, mechanical vibration levels are amplified by physically induced amplitude peaks.

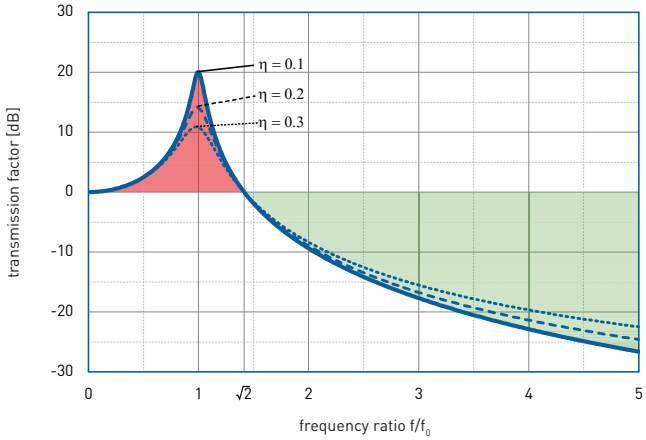


Fig. 11: Transmission factor for various mechanical loss factors

Natural frequency and damping action of vibration systems with Vikafoam/Vikadyn

For the simplest design scenario, involving a vibration bearing with a type of vibrafoam/vibradyn in accordance with the static design rating for compressive force, the computed natural frequency can be obtained by consulting page 2 of the product data sheets.

The calculation of natural frequency involves formula 3. Here, the dynamic spring constant of the bearing is determined as follows:

Formula 9

$$c = \frac{EA}{d}$$

E	dynamic modulus of elasticity	[N/mm²]
A	contact surface area	[mm²]
d	material thickness	[mm]

As an alternative to formula 3, the following formula can be used:

Formula 10

$$f_0 = 15.76 \cdot \sqrt{\frac{E}{d\sigma}}$$

σ	surface compression caused by the weight of the oscillating mass	[N/mm²]

The modulus of elasticity E to be used for the corresponding surface pressure can be found on page 2 of the product data sheets. When calculating the dynamic spring constant using formula 9, and natural frequency using formula 10, ensure that the material thickness for Vikafoam/Vikadyn should be applied in unloaded condition. For sequential switching and/or for a combination of elastomer springs, the natural frequency obtained using formula 3 must be computed from the level of total rigidity. This computational model is also valid for shear loads. However, in this case the dynamic shear modulus should be used.

The isolation level and isolation value of the elastic bearing can be calculated using formula 7 and formula 8 for the corresponding frequency ratio as a function of the prevailing mechanical loss factor. These two parameters, dependent upon natural and interference frequency, are illustrated for the simplified case (η=0) in the detailed data sheet.

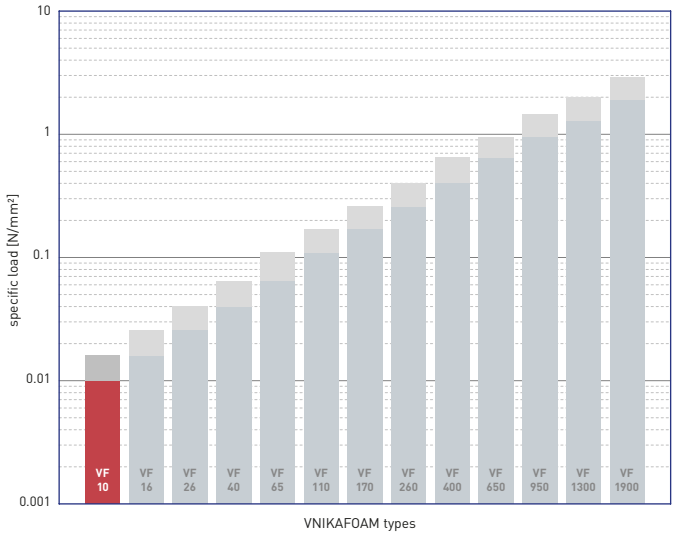
The calculation of natural frequency, assisted by static suspension action as applied to the design of forms of undamped vibration isolation (e.g. steel springs) is not suitable for calculating the natural frequency of a Vikafoam/Vikadyn bearing.

Modelling

The modelling of a vibration system with one degree of freedom is usually enough to create a mechanical one-dimensional analogous model of the mass-spring system. This presupposes theoretically dynamic infinitely rigid and compact masses and a dynamically rigid foundation. This case generally applies to excitation masses that are very small compared to the mass of the foundation, as a first approximation. Here it is usually sufficient to know the lowest resonant frequency of the system.

When linked to structures with many other discrete individual masses and springs, additional natural frequencies can be observed. It can be advisable to extend the model in a suitable manner for this case. Particularly high levels of isolation efficiency can for example be achieved by using a dual-mass vibration

Working range



VF 10

Recommendations for elastic bearing

Static load: up to [N/mm²]

0.010

Dynamic load: up to [N/mm²]

0.016

Load peaks: up to [N/mm²]

0.5

Values depending on form factor and apply to form factor q = 3

- Material mixed cellular polyether-urethane
- Colour red

Sheet specifications

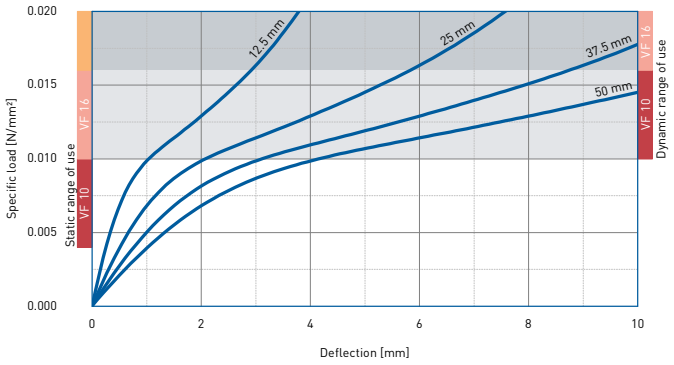
- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.25	DIN 53513 [2]	guide value
Static E-modulus [1]	0.048 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	0.144 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	0.04 N/mm²	DIN 53513 [2]	preload 0.01 N/mm²
Dynamic shear modulus [1]	0.09 N/mm²	DIN 53513 [2]	preload 0.01 N/mm², 10 Hz
Resistance to strain	0.011 N/mm²		at 10% deformation
Residual compression set	< 5 %	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Tensile strength	> 0.35 N/mm²	DIN 53455-6-4	minimum
Elongation at break	> 400 %	DIN 53455-6-4	minimum
Tear resistance	> 0.6 N/mm	DIN ISO 34-1/A	
Rebound elasticity	50 %	DIN EN ISO 8307	± 10%
Specific volume resistance	$>10^{12}$ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.05 W/[m·K]	DIN 52612-1	
Operating temperature	-30 to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

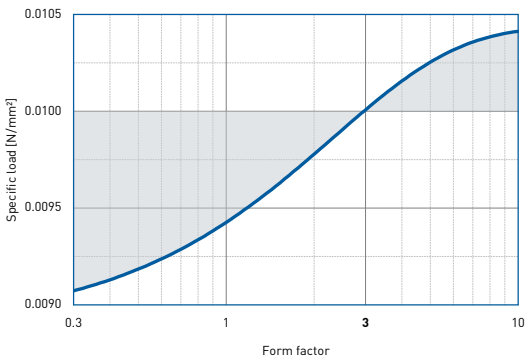
[1] measured at maximum limit of static application range
[2] test according to DIN 53513
All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
We reserve the right to amend the data.

Load deflection curve

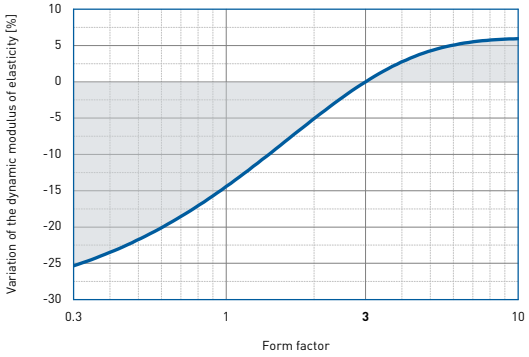


Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 3

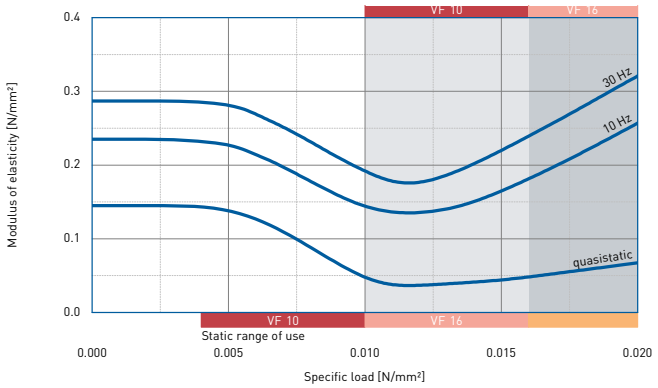
Static load range



Dynamic modulus of elasticity @ 10Hz

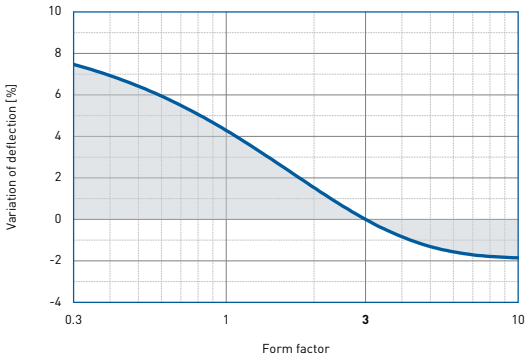


Modulus of elasticity

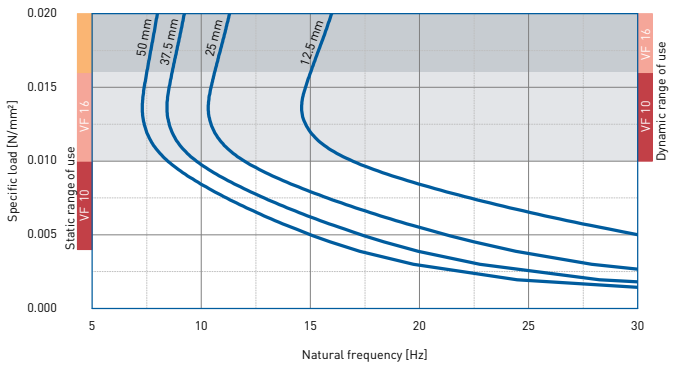


- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.22 mm at 10 Hz and ± 0.08 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 3

Deflection

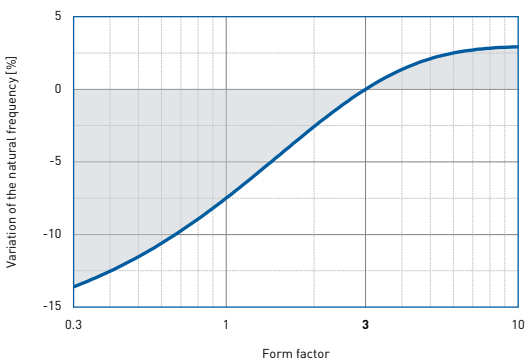


Natural frequency based on the Modulus of elasticity @ 10Hz



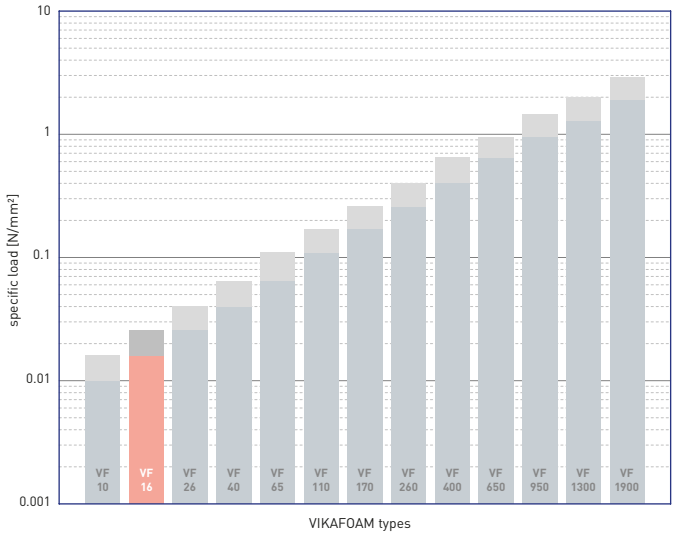
Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKAFOAM VF 10 on a stiff subgrade.
Form factor q = 3

Natural frequency



Correction values varying form factors specific load 0.01 N/mm².
Form factor q = 3

Working range



VF 16

Recommendations for elastic bearing

Static load: up to [N/mm²]

0.016

Dynamic load: up to [N/mm²]

0.026

Load peaks: up to [N/mm²]

0.7

Values depending on form factor and apply to form factor q = 3

- Material mixed cellular polyether-urethane
- Colour pink

Sheet specifications

- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

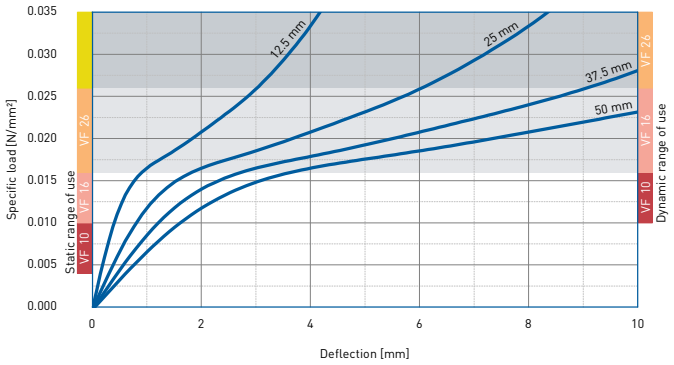
Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.24	DIN 53513 [2]	guide value
Static E-modulus [1]	0.111 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	0.328 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	0.07 N/mm²	DIN 53513 [2]	preload 0.016 N/mm²
Dynamic shear modulus [1]	0.14 N/mm²	DIN 53513 [2]	preload 0.016 N/mm², 10 Hz
Resistance to strain	0.018 N/mm²		at 10% deformation
Residual compression set	< 5 %	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Tensile strength	> 0.40 N/mm²	DIN 53455-6-4	minimum
Elongation at break	> 400 %	DIN 53455-6-4	minimum
Tear resistance	> 0.7 N/mm	DIN ISO 34-1/A	
Rebound elasticity	50 %	DIN EN ISO 8307	± 10%
Specific volume resistance	$>10^{12}$ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.05 W/[m·K]	DIN 52612-1	
Operating temperature	-30 to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

[1] measured at maximum limit of static application range
[2] test according to DIN 53513
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.

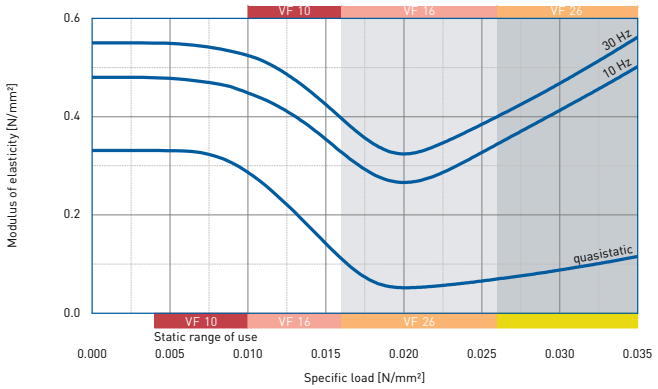
Vikafoam

Load deflection curve



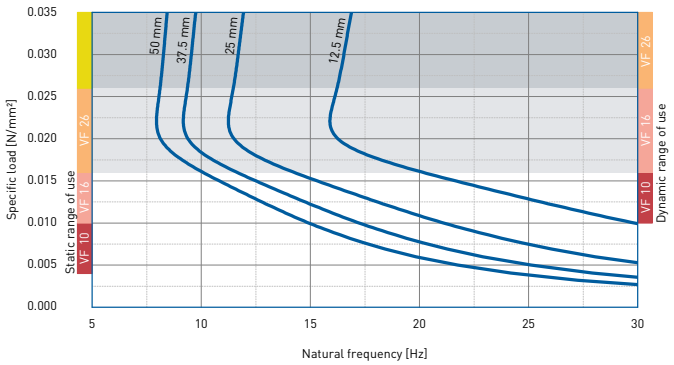
Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 3

Modulus of elasticity



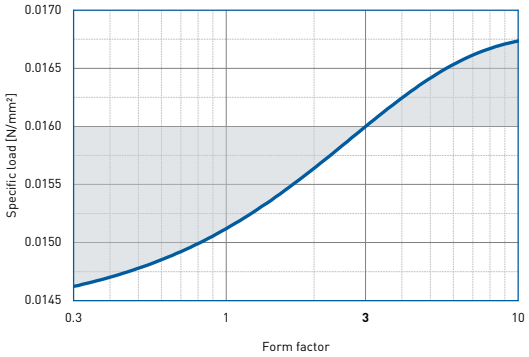
- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.22 mm at 10 Hz and ± 0.08 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 3

Natural frequency based on the Modulus of elasticity @ 10Hz

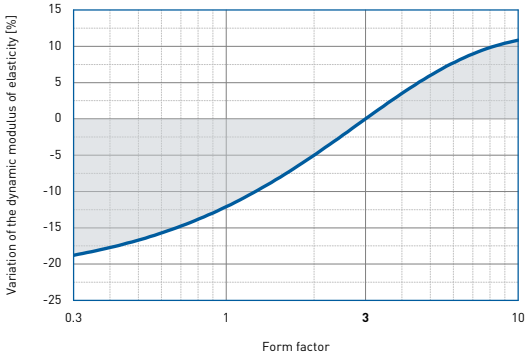


Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKAFOAM VF 16 on a stiff subgrade.
Form factor q = 3

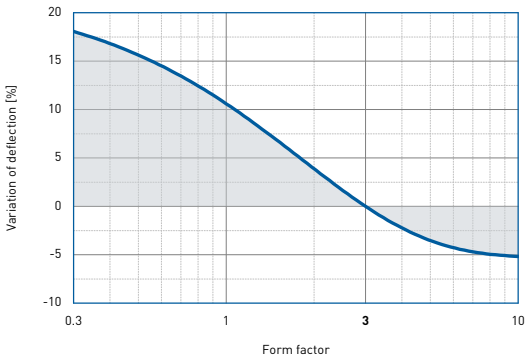
Static load range



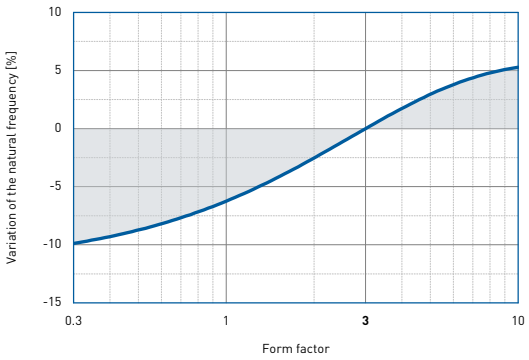
Dynamic modulus of elasticity @ 10Hz



Deflection



Natural frequency

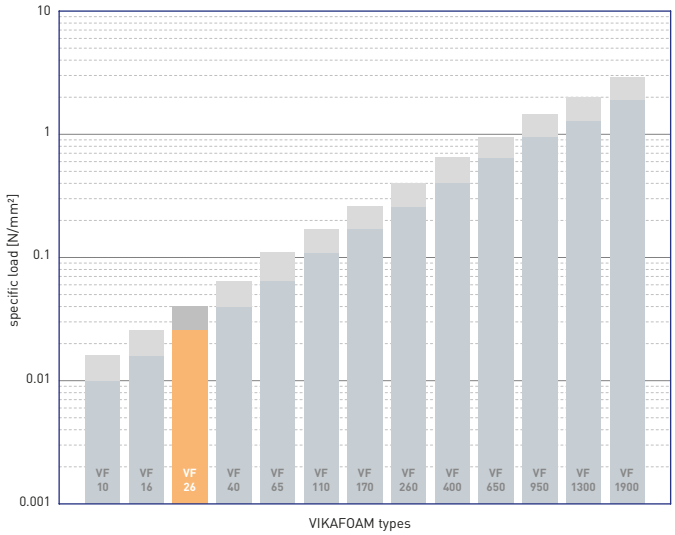


Correction values varying form factors specific load 0.016 N/mm².
Form factor q = 3

Vikafoam

VF26

Working range



VF 26

Recommendations for elastic bearing

Static load: up to [N/mm²]

0.026

Dynamic load: up to [N/mm²]

0.040

Load peaks: up to [N/mm²]

1.0

Values depending on form factor and apply to form factor q = 3

- Material mixed cellular polyether-urethane
- Colour orange

Sheet specifications

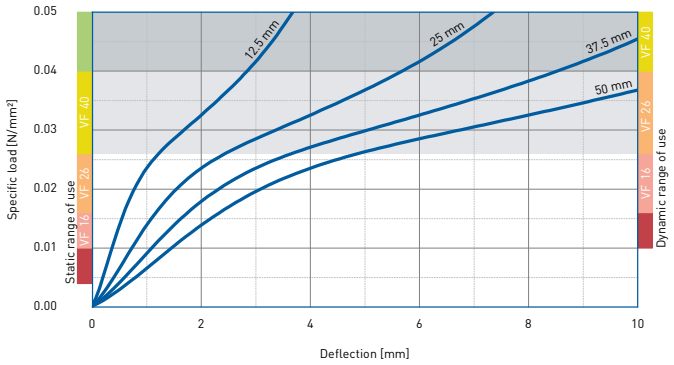
- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.22	DIN 53513 [2]	guide value
Static E-modulus [1]	0.129 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	0.443 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	0.09 N/mm²	DIN 53513 [2]	preload 0.026 N/mm²
Dynamic shear modulus [1]	0.17 N/mm²	DIN 53513 [2]	preload 0.026 N/mm², 10 Hz
Resistance to strain	0.026 N/mm²		at 10% deformation
Residual compression set	< 5 %	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Tensile strength	> 0.45 N/mm²	DIN 53455-6-4	minimum
Elongation at break	> 400 %	DIN 53455-6-4	minimum
Tear resistance	> 0.9 N/mm	DIN ISO 34-1/A	
Rebound elasticity	50 %	DIN EN ISO 8307	± 10%
Specific volume resistance	$>10^{11}$ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.06 W/[m·K]	DIN 52612-1	
Operating temperature	-30 to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

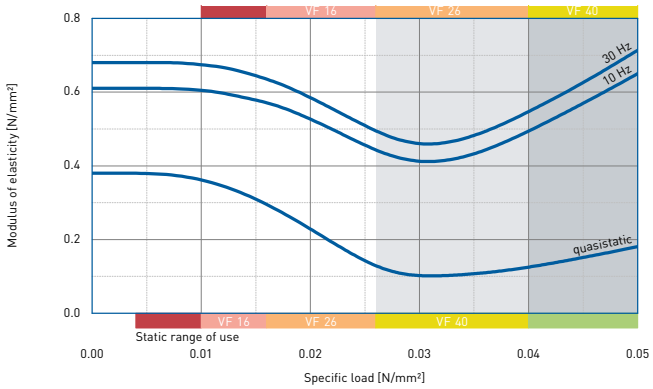
[1] measured at maximum limit of static application range
[2] test according to DIN 53513
All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
We reserve the right to amend the data.

Load deflection curve



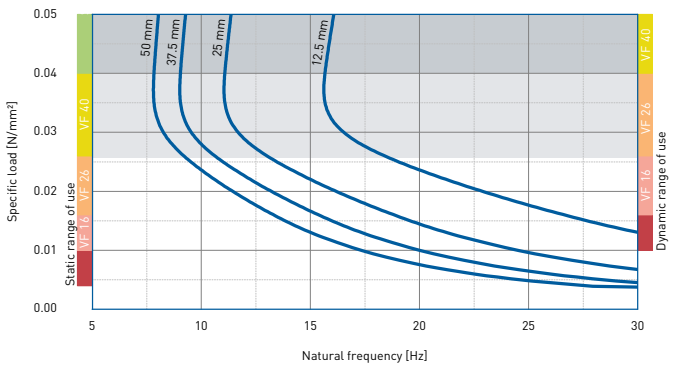
Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 3

Modulus of elasticity



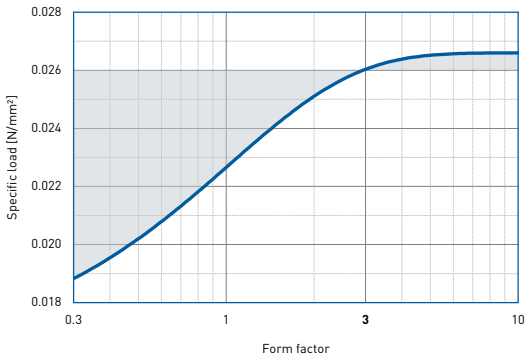
- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.22 mm at 10 Hz and ± 0.08 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 3

Natural frequency based on the Modulus of elasticity @ 10Hz

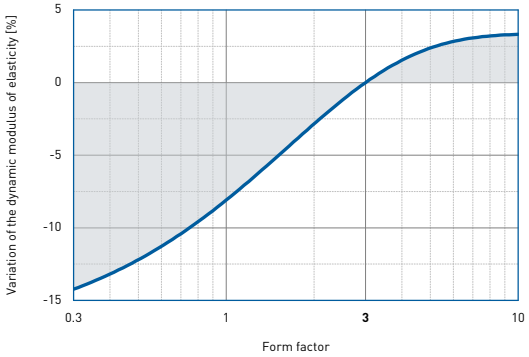


Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKAFOAM VF 26 on a stiff subgrade.
Form factor q = 3

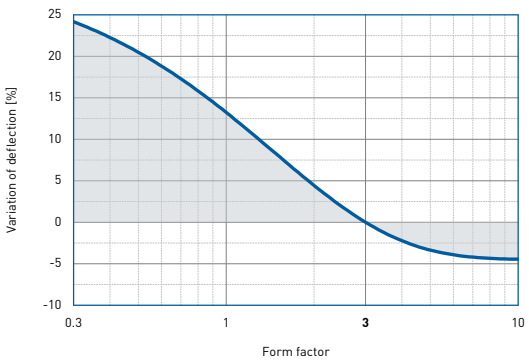
Static load range



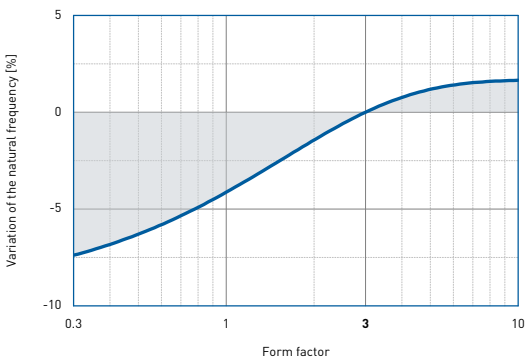
Dynamic modulus of elasticity @ 10Hz



Deflection



Natural frequency

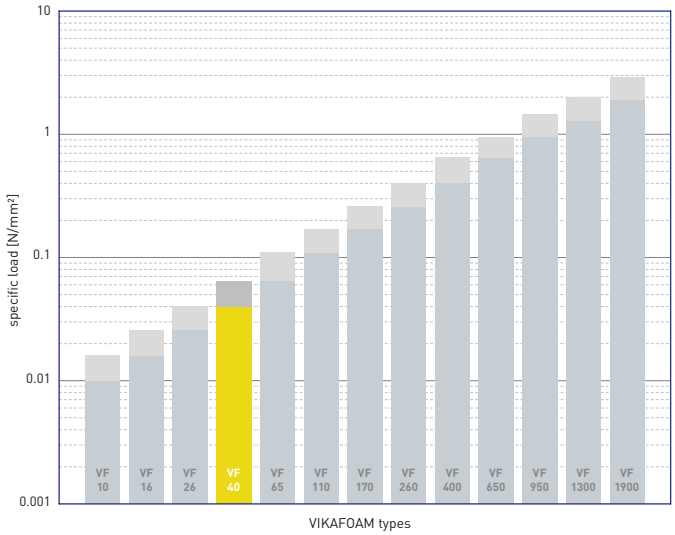


Correction values varying form factors specific load 0.026 N/mm².
Form factor q = 3

Vikafoam

VF40

Working range



VF 40

Recommendations for elastic bearing

Static load: up to [N/mm²]

0.040

Dynamic load: up to [N/mm²]

0.065

Load peaks: up to [N/mm²]

2.0

Values depending on form factor and apply to form factor q = 3

- Material mixed cellular polyether-urethane
- Colour yellow

Sheet specifications

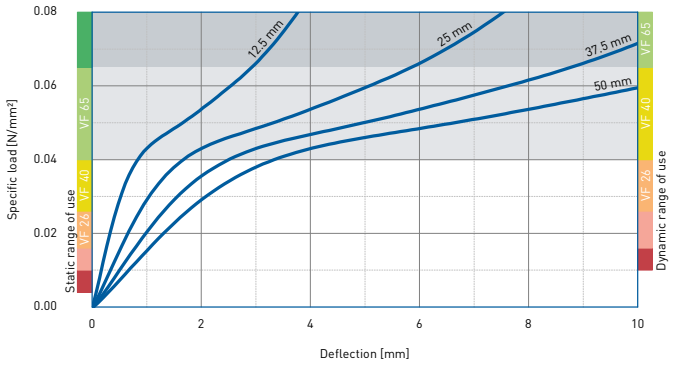
- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.15	DIN 53513 [2]	guide value
Static E-modulus [1]	0.316 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	0.743 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	0.13 N/mm²	DIN 53513 [2]	preload 0.04 N/mm²
Dynamic shear modulus [1]	0.24 N/mm²	DIN 53513 [2]	preload 0.04 N/mm², 10 Hz
Resistance to strain	0.046 N/mm²		at 10% deformation
Residual compression set	< 5 %	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Tensile strength	> 0.55 N/mm²	DIN 53455-6-4	minimum
Elongation at break	> 400 %	DIN 53455-6-4	minimum
Tear resistance	> 1.1 N/mm	DIN ISO 34-1/A	
Rebound elasticity	50 %	DIN EN ISO 8307	± 10%
Specific volume resistance	$>10^{11}$ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.07 W/[m·K]	DIN 52612-1	
Operating temperature	-30 to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

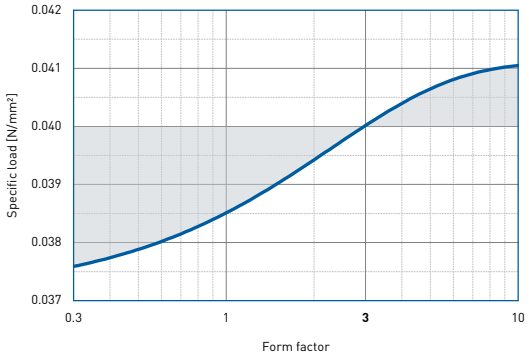
[1] measured at maximum limit of static application range
[2] test according to DIN 53513
All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
We reserve the right to amend the data.

Load deflection curve

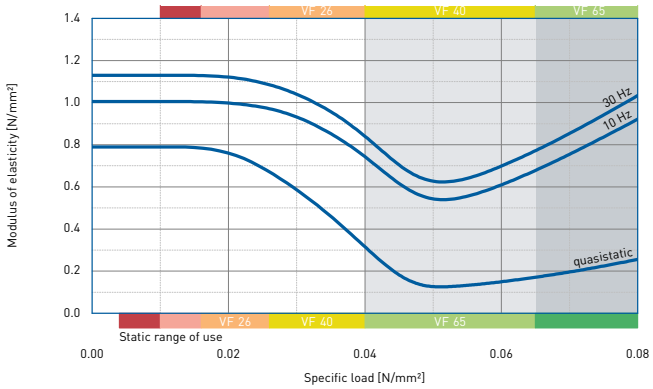


Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 3

Static load range

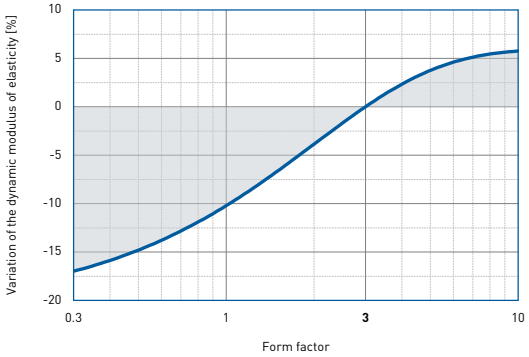


Modulus of elasticity

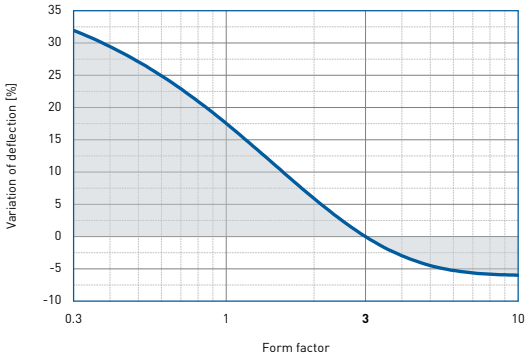


- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.22 mm at 10 Hz and ± 0.08 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 3

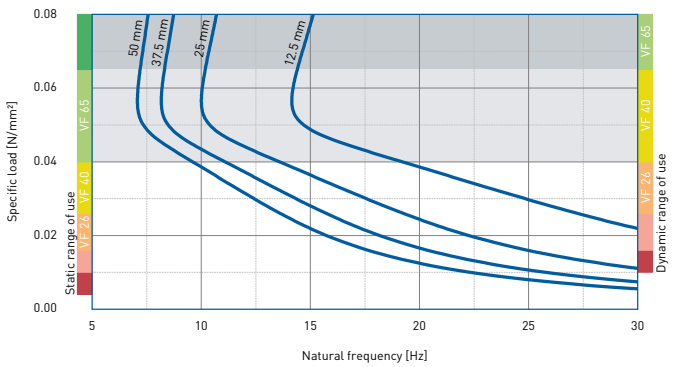
Dynamic modulus of elasticity ⍾ 10Hz



Deflection

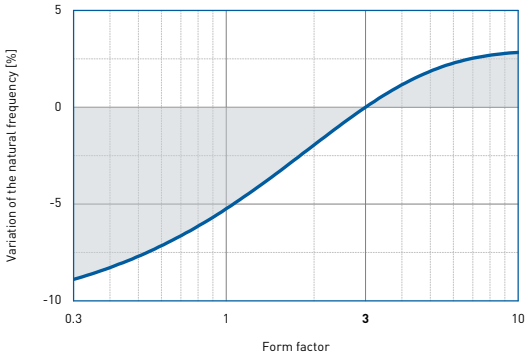


Natural frequency based on the Modulus of elasticity ⍾ 10Hz



Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKAFOAM VF 40 on a stiff subgrade.
Form factor q = 3

Natural frequency

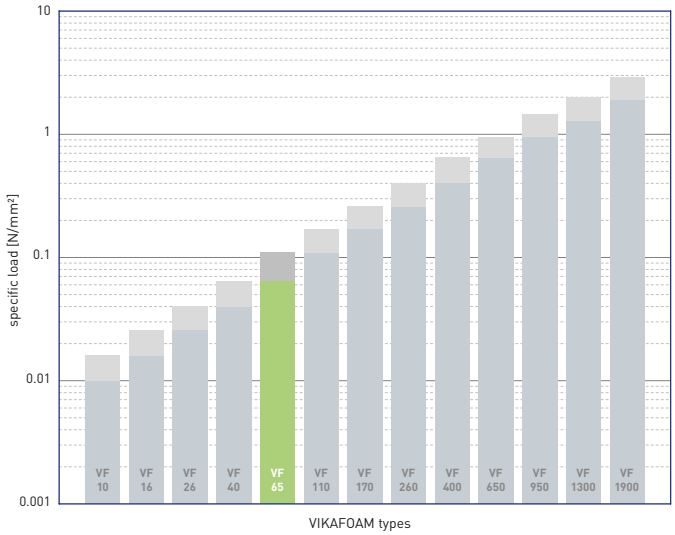


Correction values varying form factors specific load 0.04 N/mm².
Form factor q = 3

Vikafoam

VF65

Working range



VF 65

Recommendations for elastic bearing

Static load: up to [N/mm²]

0.065

Dynamic load: up to [N/mm²]

0.110

Load peaks: up to [N/mm²]

2.5

Values depending on form factor and apply to form factor q = 3

- Material mixed cellular polyether-urethane
- Colour bright green

Sheet specifications

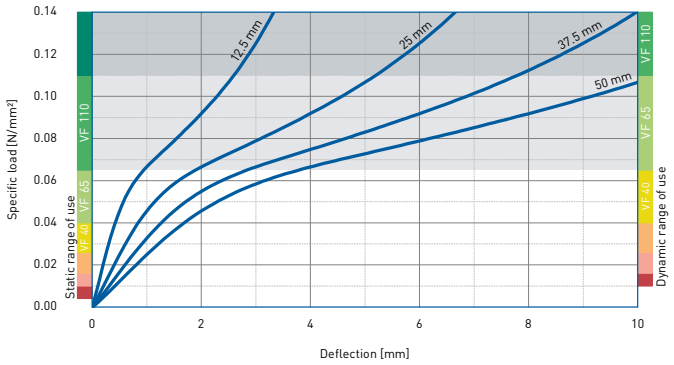
- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.18	DIN 53513 [2]	guide value
Static E-modulus [1]	0.453 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	1.06 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	0.17 N/mm²	DIN 53513 [2]	preload 0.065 N/mm²
Dynamic shear modulus [1]	0.33 N/mm²	DIN 53513 [2]	preload 0.065 N/mm², 10 Hz
Resistance to strain	0.073 N/mm²		at 10% deformation
Residual compression set	< 5 %	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Tensile strength	> 0.70 N/mm²	DIN 53455-6-4	minimum
Elongation at break	> 400 %	DIN 53455-6-4	minimum
Tear resistance	> 1.3 N/mm	DIN ISO 34-1/A	
Rebound elasticity	50 %	DIN EN ISO 8307	± 10%
Specific volume resistance	$>10^{11}$ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.07 W/[m·K]	DIN 52612-1	
Operating temperature	-30 to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

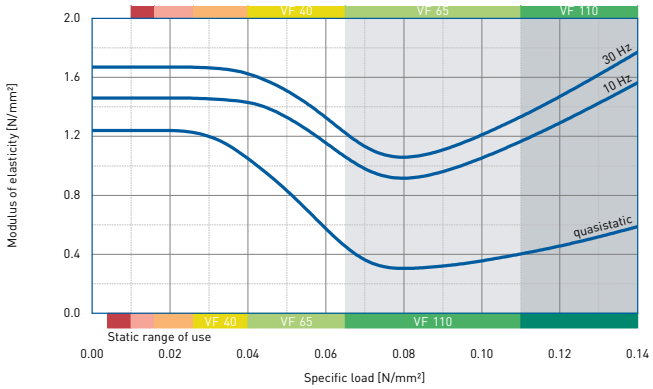
[1] measured at maximum limit of static application range
[2] test according to DIN 53513
All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
We reserve the right to amend the data.

Load deflection curve



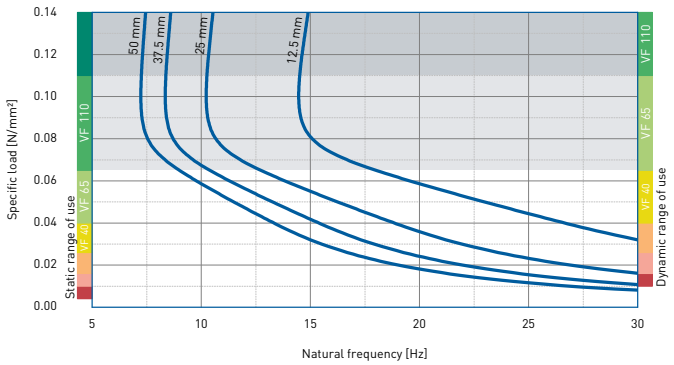
Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 3

Modulus of elasticity



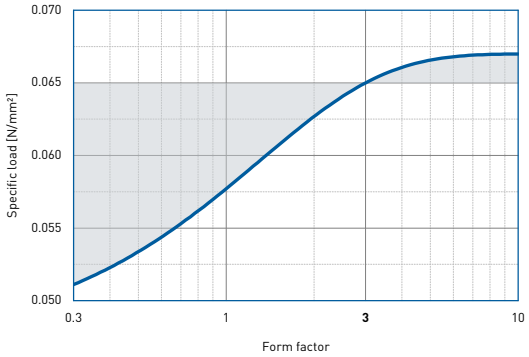
- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.22 mm at 10 Hz and ± 0.08 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 3

Natural frequency based on the Modulus of elasticity ⍾ 10Hz

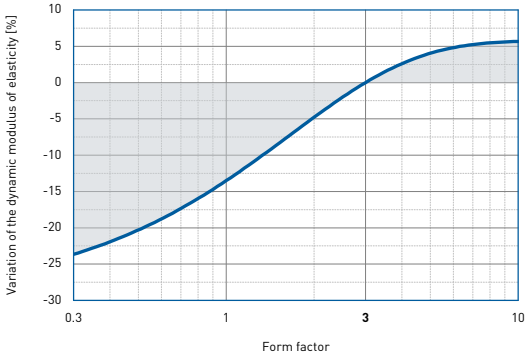


Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKAFOAM VF 65 on a stiff subgrade.
Form factor q = 3

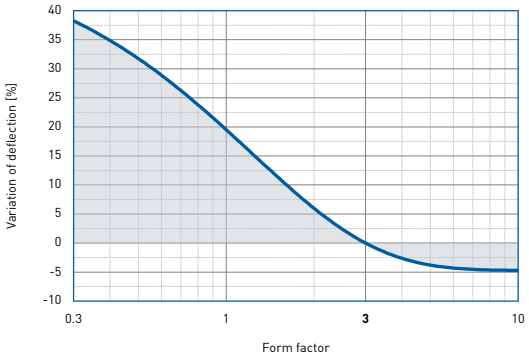
Static load range



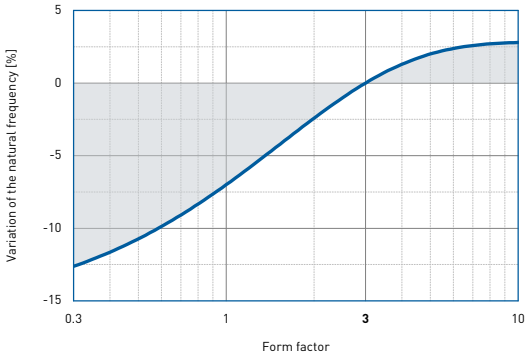
Dynamic modulus of elasticity ⍾ 10Hz



Deflection



Natural frequency

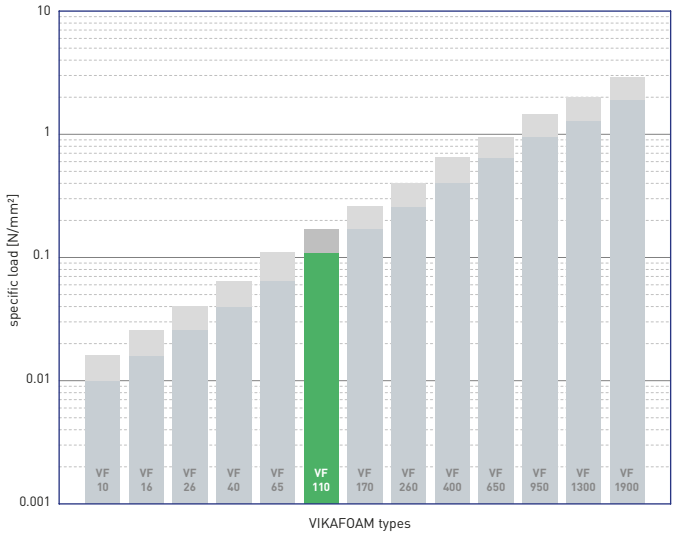


Correction values varying form factors specific load 0.065 N/mm².
Form factor q = 3

Vikafoam

VF110

Working range



VF 110

Recommendations for elastic bearing

Static load: up to [N/mm²]

0.110

Dynamic load: up to [N/mm²]

0.170

Load peaks: up to [N/mm²]

3.0

Values depending on form factor and apply to form factor q = 3

- Material mixed cellular polyether-urethane
- Colour green

Sheet specifications

- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

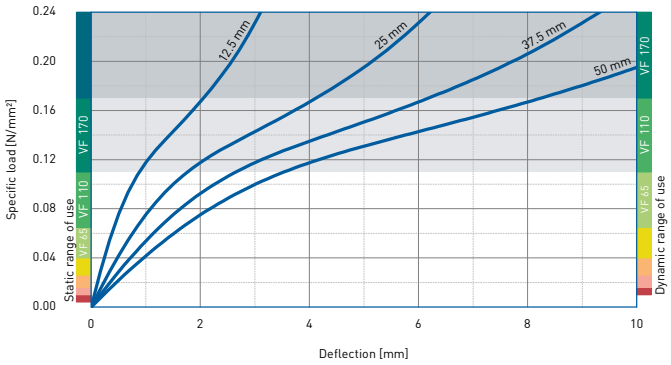
Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.12	DIN 53513 [2]	guide value
Static E-modulus [1]	0.861 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	1.86 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	0.21 N/mm²	DIN 53513 [2]	preload 0.11 N/mm²
Dynamic shear modulus [1]	0.49 N/mm²	DIN 53513 [2]	preload 0.11 N/mm², 10 Hz
Resistance to strain	0.130 N/mm²		at 10% deformation
Residual compression set	< 5 %	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Tensile strength	> 0.95 N/mm²	DIN 53455-6-4	minimum
Elongation at break	> 400 %	DIN 53455-6-4	minimum
Tear resistance	> 1.9 N/mm	DIN ISO 34-1/A	
Rebound elasticity	50 %	DIN EN ISO 8307	± 10%
Specific volume resistance	$>10^{11}$ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.08 W/[m·K]	DIN 52612-1	
Operating temperature	-30 to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

[1] measured at maximum limit of static application range
[2] test according to DIN 53513
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.

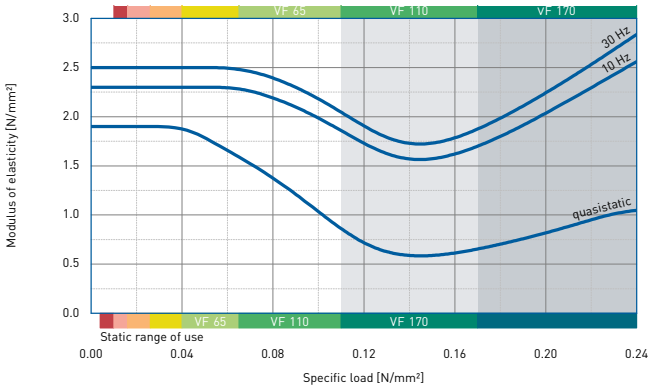
Vikafoam

Load deflection curve



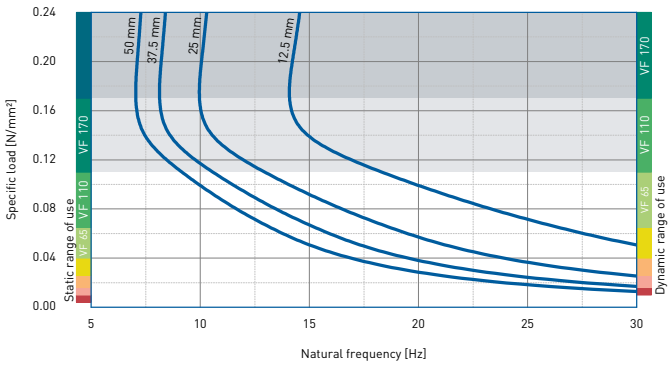
Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 3

Modulus of elasticity



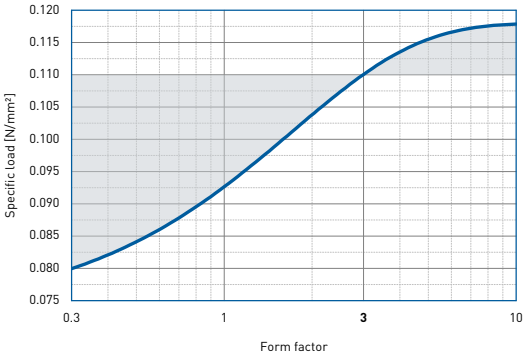
- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.22 mm at 10 Hz and ± 0.08 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 3

Natural frequency based on the Modulus of elasticity @ 10Hz

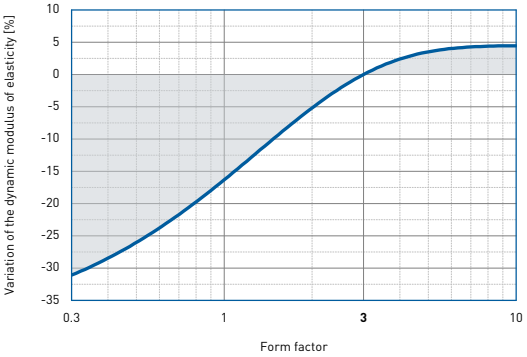


Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKAFOAM VF 110 on a stiff subgrade.
Form factor q = 3

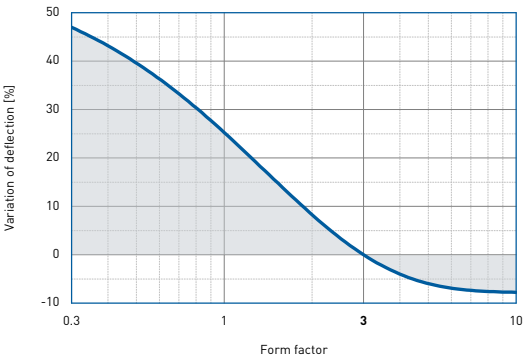
Static load range



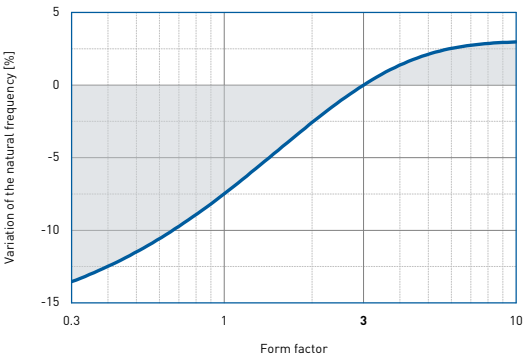
Dynamic modulus of elasticity @ 10Hz



Deflection



Natural frequency

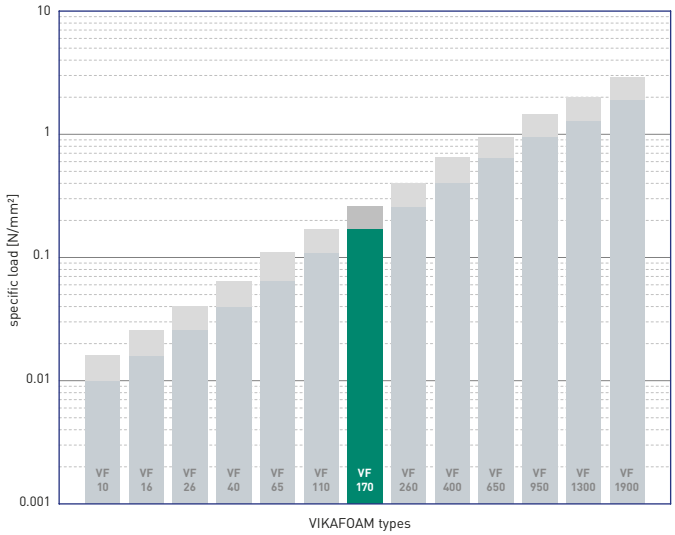


Correction values varying form factors specific load 0.11 N/mm².
Form factor q = 3

Vikafoam

VF170

Working range



VF 170

Recommendations for elastic bearing

Static load: up to [N/mm²]

0.170

Dynamic load: up to [N/mm²]

0.260

Load peaks: up to [N/mm²]

3.5

Values depending on form factor and apply to form factor q = 3

- Material mixed cellular polyether-urethane
- Colour dark green

Sheet specifications

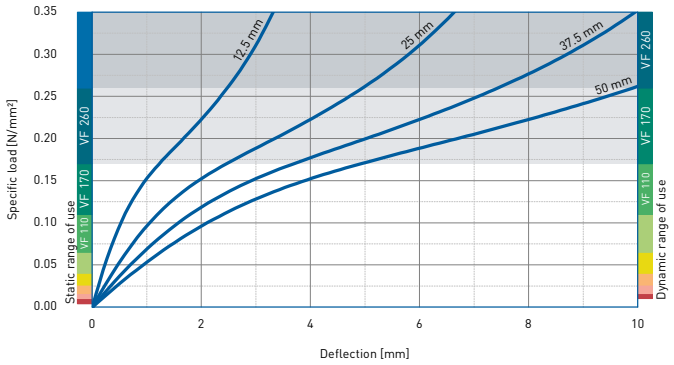
- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.13	DIN 53513 [2]	guide value
Static E-modulus [1]	0.931 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	2.27 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	0.29 N/mm²	DIN 53513 [2]	preload 0.17 N/mm²
Dynamic shear modulus [1]	0.73 N/mm²	DIN 53513 [2]	preload 0.17 N/mm², 10 Hz
Resistance to strain	0.170 N/mm²		at 10% deformation
Residual compression set	< 5 %	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Tensile strength	> 1.25 N/mm²	DIN 53455-6-4	minimum
Elongation at break	> 400 %	DIN 53455-6-4	minimum
Tear resistance	> 2.5 N/mm	DIN ISO 34-1/A	
Rebound elasticity	50 %	DIN EN ISO 8307	± 10%
Specific volume resistance	$>10^{11}$ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.08 W/[m·K]	DIN 52612-1	
Operating temperature	-30 up to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

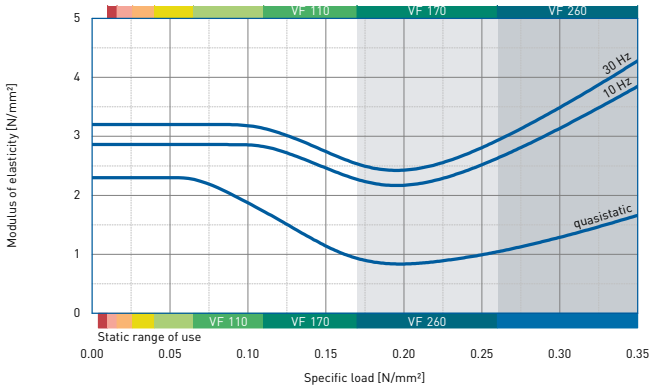
[1] measured at maximum limit of static application range
[2] test according to DIN 53513
All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
We reserve the right to amend the data.

Load deflection curve



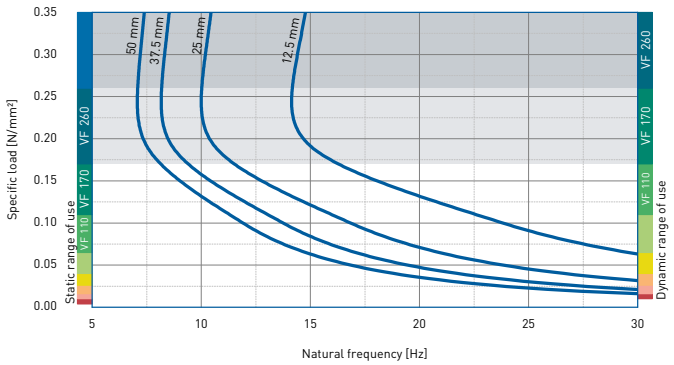
Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 3

Modulus of elasticity



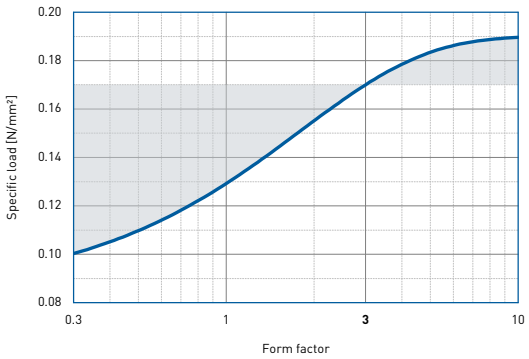
- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.22 mm at 10 Hz and ± 0.08 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 3

Natural frequency based on the Modulus of elasticity @ 10Hz

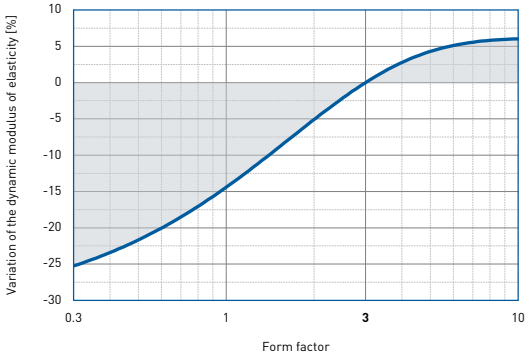


Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKAFOAM VF 170 on a stiff subgrade.
Form factor q = 3

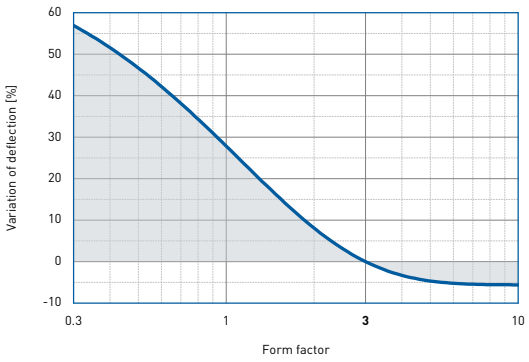
Static load range



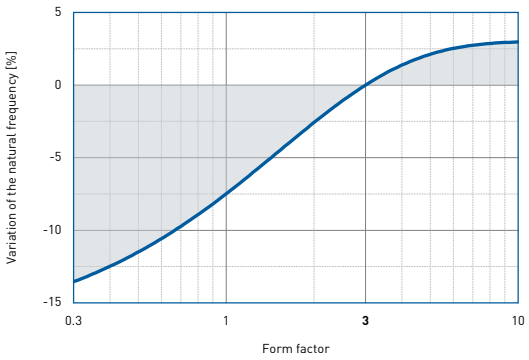
Dynamic modulus of elasticity @ 10Hz



Deflection



Natural frequency

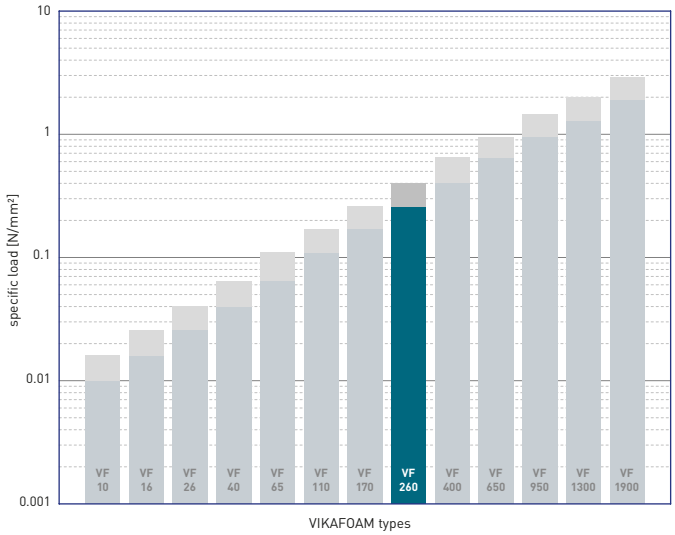


Correction values varying form factors specific load 0.17 N/mm².
Form factor q = 3

Vikafoam

VF260

Working range



VF 260

Recommendations for elastic bearing

Static load: up to [N/mm²]

0.260

Dynamic load: up to [N/mm²]

0.400

Load peaks: up to [N/mm²]

4.0

Values depending on form factor and apply to form factor q = 3

- Material mixed cellular polyether-urethane
- Colour petrol

Sheet specifications

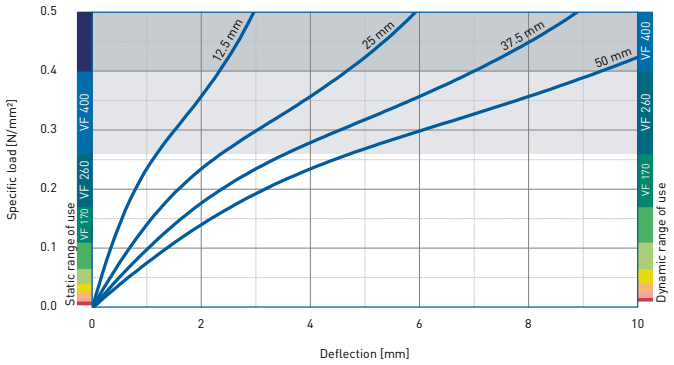
- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.11	DIN 53513 [2]	guide value
Static E-modulus [1]	1.64 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	3.63 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	0.41 N/mm²	DIN 53513 [2]	preload 0.26 N/mm²
Dynamic shear modulus [1]	1.00 N/mm²	DIN 53513 [2]	preload 0.26 N/mm², 10 Hz
Resistance to strain	0.270 N/mm²		at 10% deformation
Residual compression set	< 5 %	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Tensile strength	> 1.65 N/mm²	DIN 53455-6-4	minimum
Elongation at break	> 400 %	DIN 53455-6-4	minimum
Tear resistance	> 2.9 N/mm	DIN ISO 34-1/A	
Rebound elasticity	45 %	DIN EN ISO 8307	± 10%
Specific volume resistance	$>10^{11}$ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.08 W/[m·K]	DIN 52612-1	
Operating temperature	-30 to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

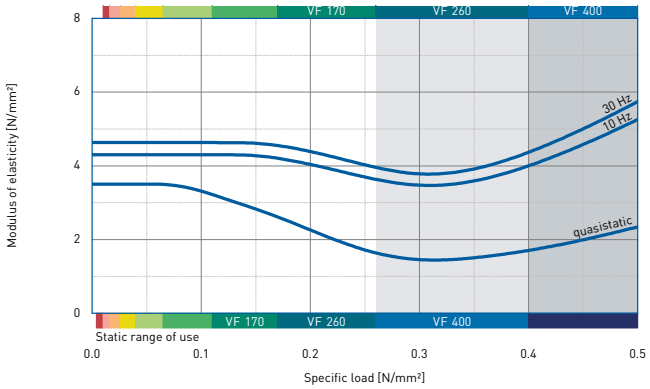
[1] measured at maximum limit of static application range
[2] test according to DIN 53513
All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
We reserve the right to amend the data.

Load deflection curve



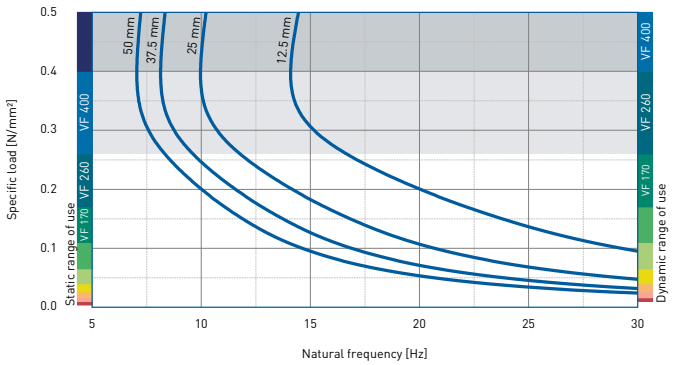
Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 3

Modulus of elasticity



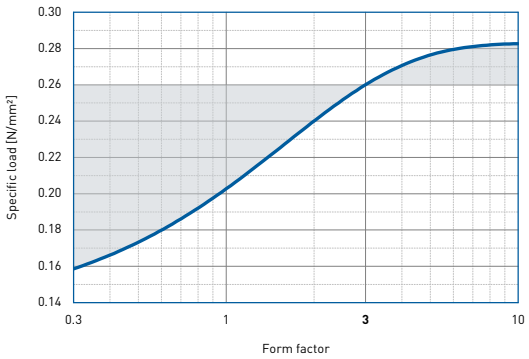
- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.22 mm at 10 Hz and ± 0.08 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 3

Natural frequency based on the Modulus of elasticity @ 10Hz

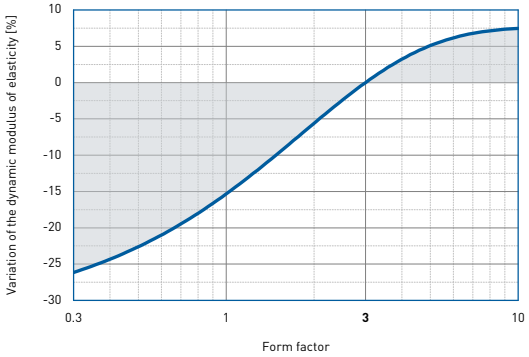


Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKAFOAM VF 260 on a stiff subgrade.
Form factor q = 3

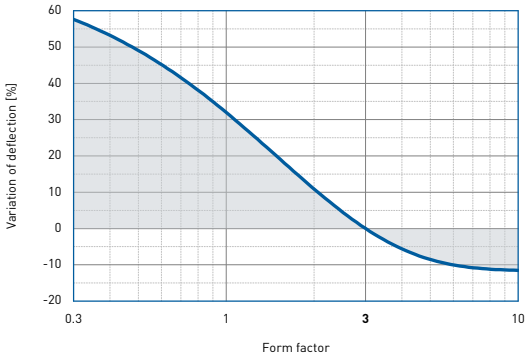
Static load range



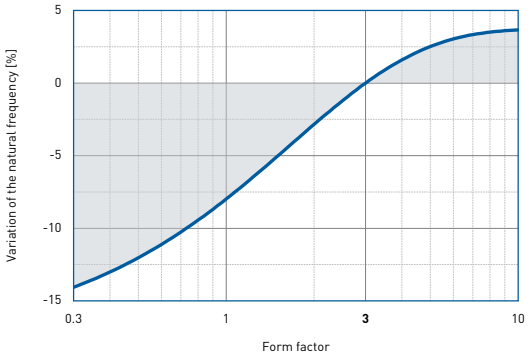
Dynamic modulus of elasticity @ 10Hz



Deflection



Natural frequency

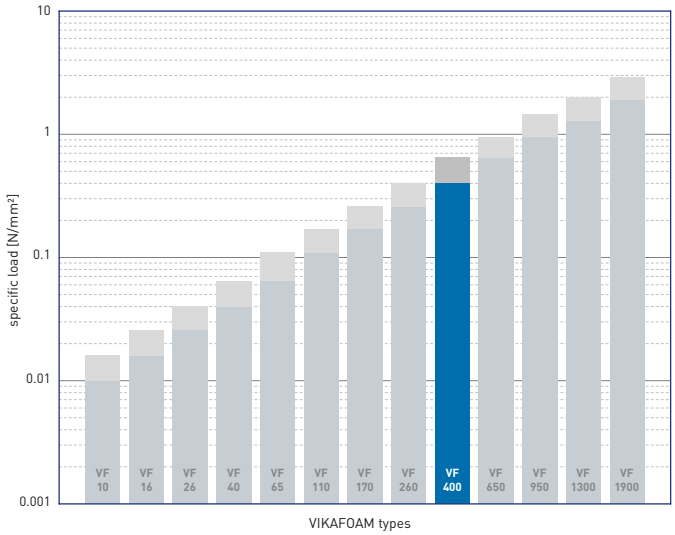


Correction values varying form factors specific load 0.26 N/mm².
Form factor q = 3

Vikafoam

VF400

Working range



VF 400

Recommendations for elastic bearing

Static load: up to [N/mm²]

0.400

Dynamic load: up to [N/mm²]

0.650

Load peaks: up to [N/mm²]

4.5

Values depending on form factor and apply to form factor q = 3

- Material mixed cellular polyether-urethane
- Colour blue

Sheet specifications

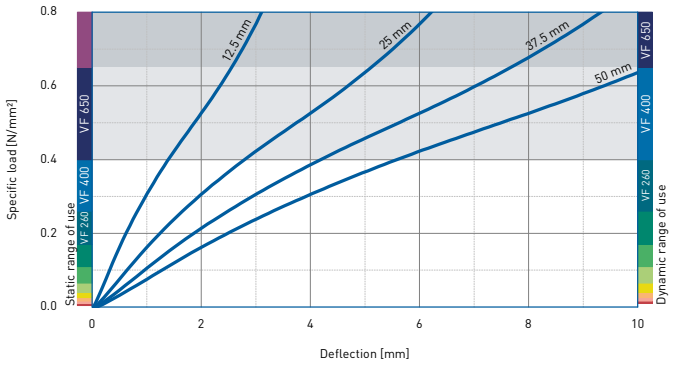
- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.10	DIN 53513 [2]	guide value
Static E-modulus [1]	2.72 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	5.27 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	0.53 N/mm²	DIN 53513 [2]	preload 0.40 N/mm²
Dynamic shear modulus [1]	1.15 N/mm²	DIN 53513 [2]	preload 0.40 N/mm², 10 Hz
Resistance to strain	0.370 N/mm²		at 10% deformation
Residual compression set	< 5 %	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Tensile strength	> 2.25 N/mm²	DIN 53455-6-4	minimum
Elongation at break	> 400 %	DIN 53455-6-4	minimum
Tear resistance	> 3.2 N/mm	DIN ISO 34-1/A	
Rebound elasticity	45 %	DIN EN ISO 8307	± 10%
Specific volume resistance	$>10^{11}$ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.10 W/[m·K]	DIN 52612-1	
Operating temperature	-30 to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

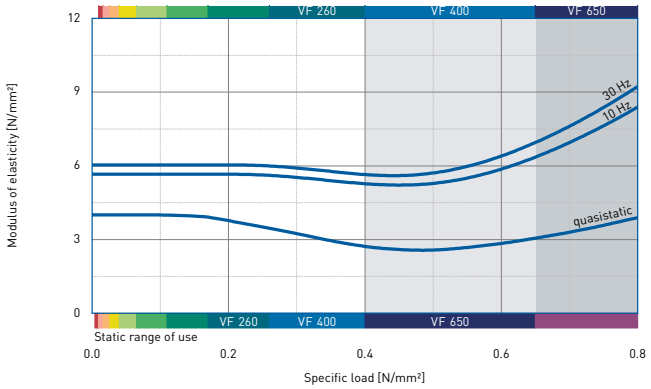
[1] measured at maximum limit of static application range
[2] test according to DIN 53513
All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
We reserve the right to amend the data.

Load deflection curve



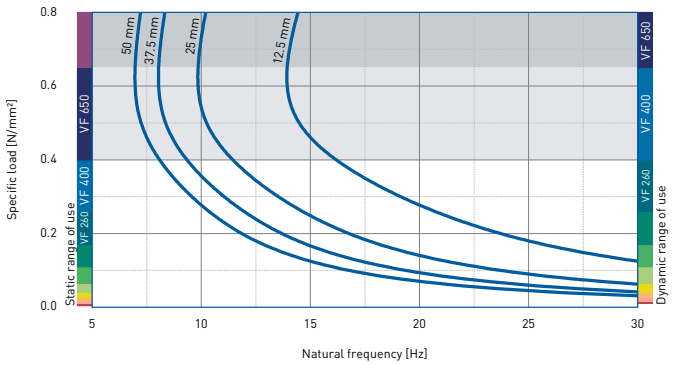
Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 3

Modulus of elasticity



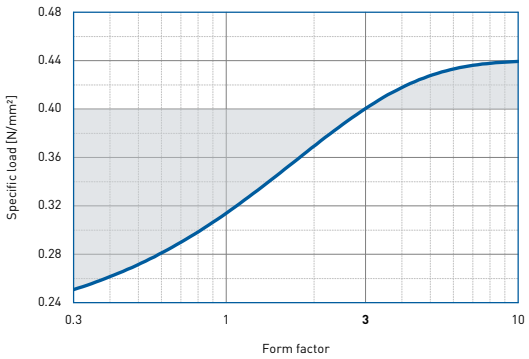
- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.22 mm at 10 Hz and ± 0.08 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 3

Natural frequency based on the Modulus of elasticity @ 10Hz

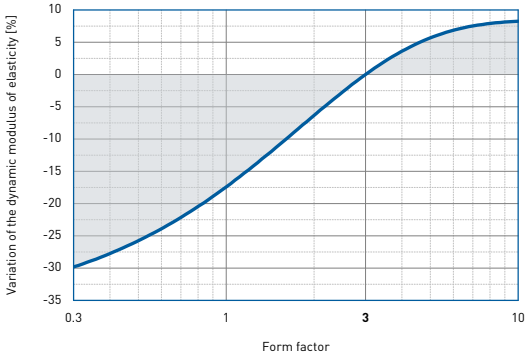


Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKAFOAM VF 400 on a stiff subgrade.
Form factor q = 3

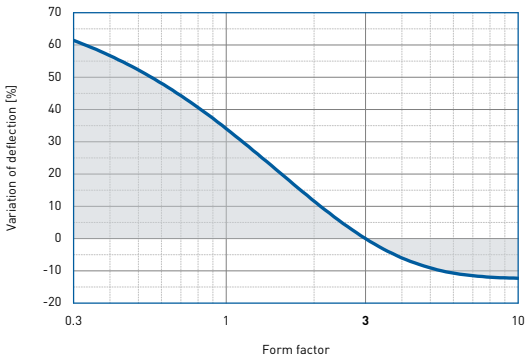
Static load range



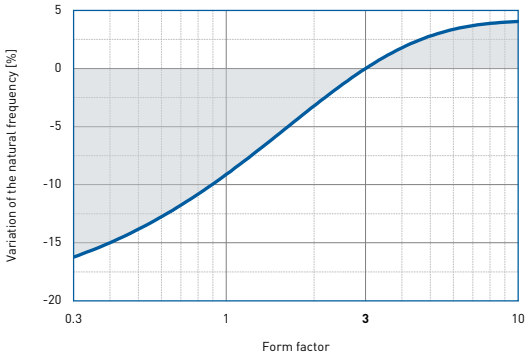
Dynamic modulus of elasticity @ 10Hz



Deflection



Natural frequency

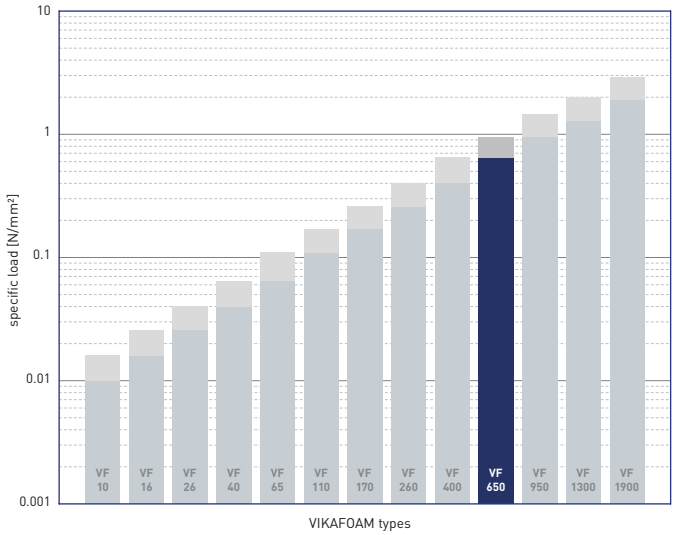


Correction values varying form factors specific load 0.4 N/mm².
Form factor q = 3

Vikafoam

VF650

Working range



VF 650

Recommendations for elastic bearing

Static load: up to [N/mm²]

0.650

Dynamic load: up to [N/mm²]

0.950

Load peaks: up to [N/mm²]

5.5

Values depending on form factor and apply to form factor q = 3

- Material mixed cellular polyether-urethane
- Colour dark blue

Sheet specifications

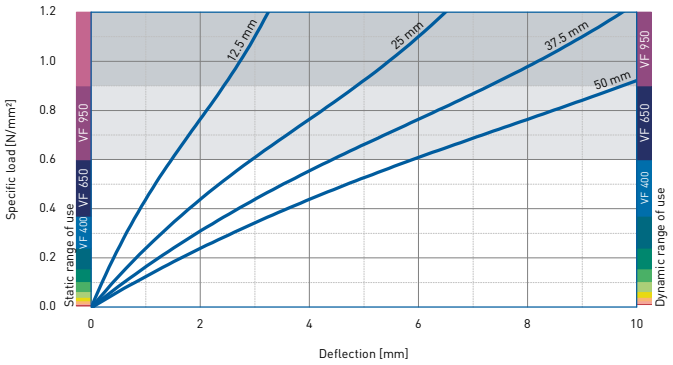
- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.10	DIN 53513 [2]	guide value
Static E-modulus [1]	4.57 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	10.4 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	0.68 N/mm²	DIN 53513 [2]	preload 0.65 N/mm²
Dynamic shear modulus [1]	1.85 N/mm²	DIN 53513 [2]	preload 0.65 N/mm², 10 Hz
Resistance to strain	0.590 N/mm²		at 10% deformation
Residual compression set	< 5 %	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Tensile strength	> 3.00 N/mm²	DIN 53455-6-4	minimum
Elongation at break	> 400 %	DIN 53455-6-4	minimum
Tear resistance	> 3.8 N/mm	DIN ISO 34-1/A	
Rebound elasticity	45 %	DIN EN ISO 8307	± 10%
Specific volume resistance	$>10^{11}$ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.10 W/[m·K]	DIN 52612-1	
Operating temperature	-30 to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

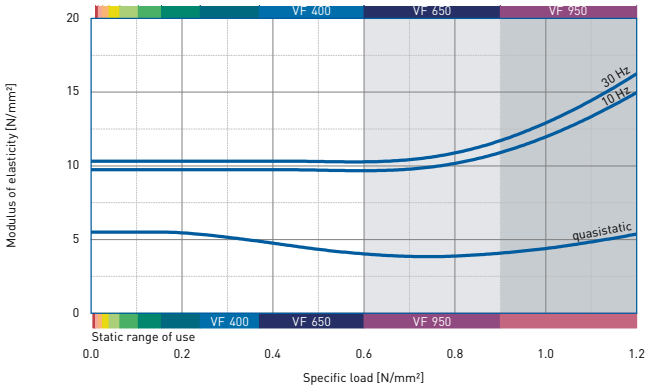
[1] measured at maximum limit of static application range
[2] test according to DIN 53513
All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
We reserve the right to amend the data.

Load deflection curve



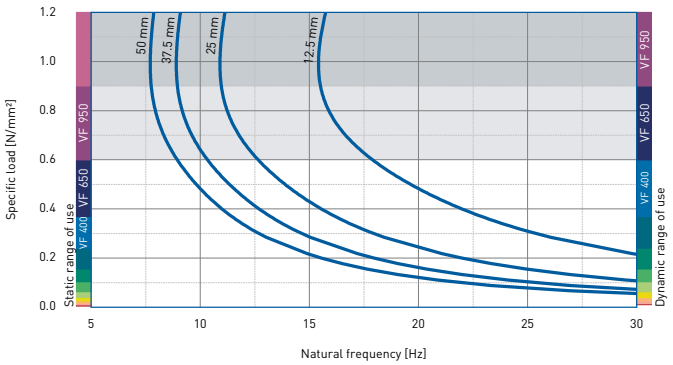
Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 2

Modulus of elasticity



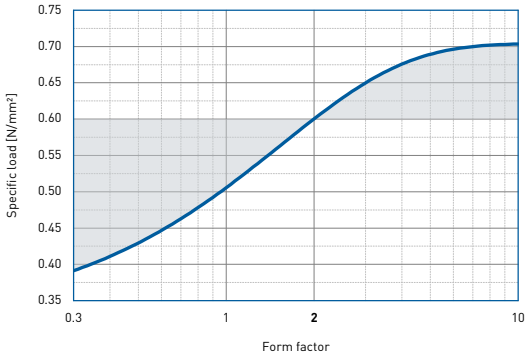
- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.22 mm at 10 Hz and ± 0.08 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 2

Natural frequency based on the Modulus of elasticity @ 10Hz

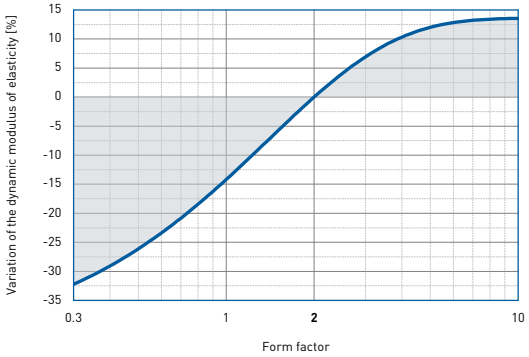


Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKAFOAM VF 650 on a stiff subgrade.
Form factor q = 2

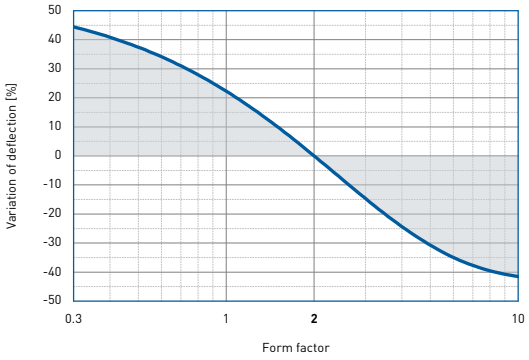
Static load range



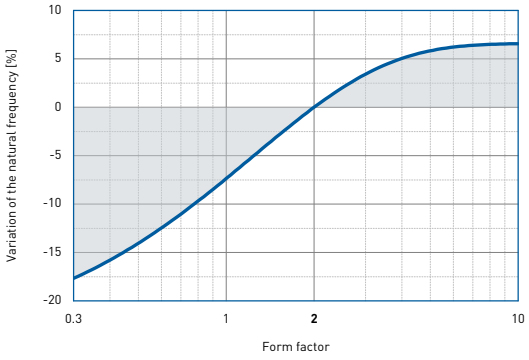
Dynamic modulus of elasticity @ 10Hz



Deflection



Natural frequency

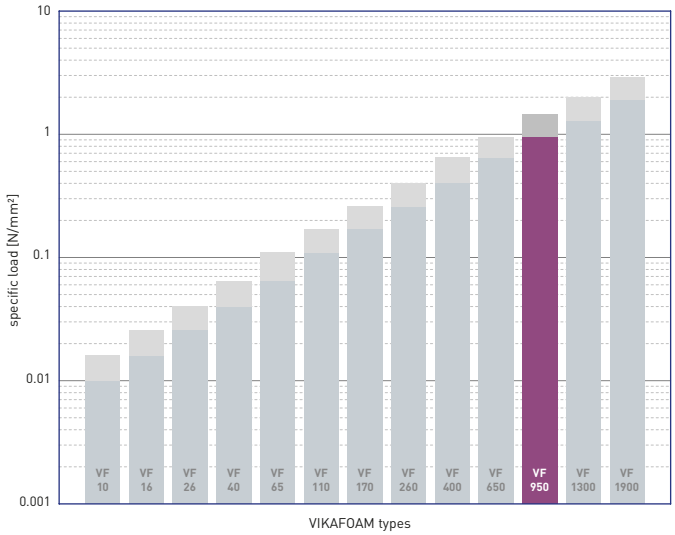


Correction values varying form factors specific load 0.6 N/mm².
Form factor q = 2

Vikafoam

VF950

Working range



VF 950

Recommendations for elastic bearing

Static load: up to [N/mm²]

0.950

Dynamic load: up to [N/mm²]

1.450

Load peaks: up to [N/mm²]

6.0

Values depending on form factor and apply to form factor q = 3

- Material mixed cellular polyether-urethane
- Colour dark violet

Sheet specifications

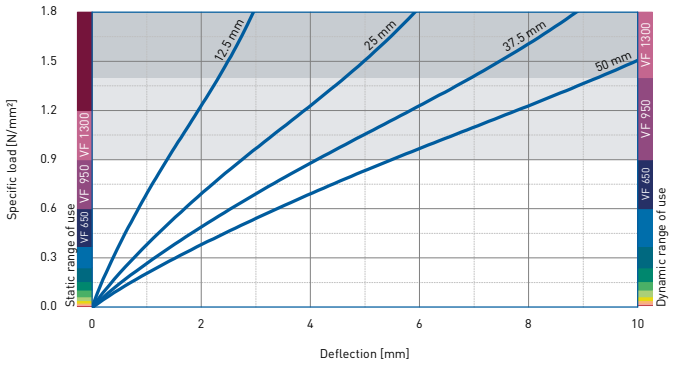
- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.10	DIN 53513 [2]	guide value
Static E-modulus [1]	8.16 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	21.5 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	0.93 N/mm²	DIN 53513 [2]	preload 0.95 N/mm²
Dynamic shear modulus [1]	2.84 N/mm²	DIN 53513 [2]	preload 0.95 N/mm², 10 Hz
Resistance to strain	0.930 N/mm²		at 10% deformation
Residual compression set	< 9 %	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Tensile strength	> 3.80 N/mm²	DIN 53455-6-4	minimum
Elongation at break	> 400 %	DIN 53455-6-4	minimum
Tear resistance	> 5.2 N/mm	DIN ISO 34-1/A	
Rebound elasticity	45 %	DIN EN ISO 8307	± 10%
Specific volume resistance	$>10^{11}$ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.11 W/[m·K]	DIN 52612-1	
Operating temperature	-30 to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

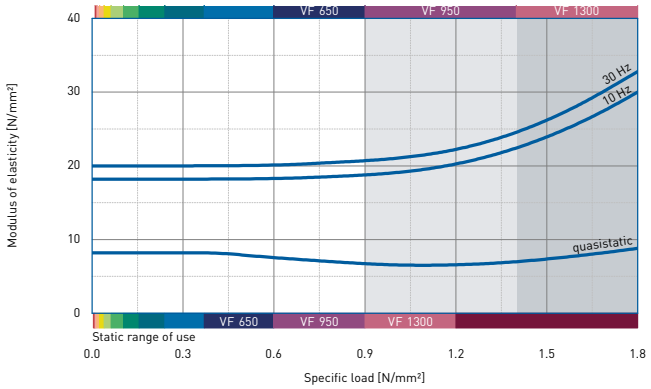
[1] measured at maximum limit of static application range
[2] test according to DIN 53513
All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
We reserve the right to amend the data.

Load deflection curve



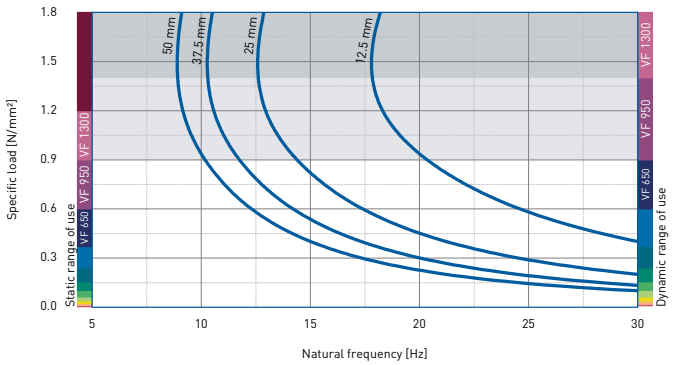
Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 2

Modulus of elasticity



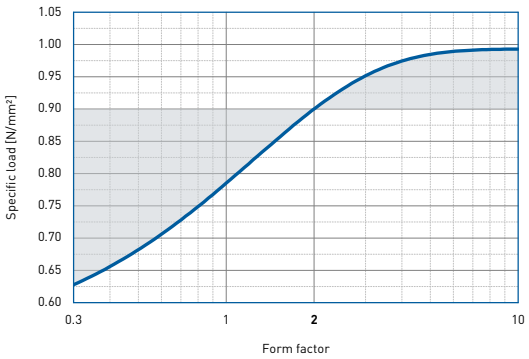
- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.22 mm at 10 Hz and ± 0.08 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 2

Natural frequency based on the Modulus of elasticity @ 10Hz

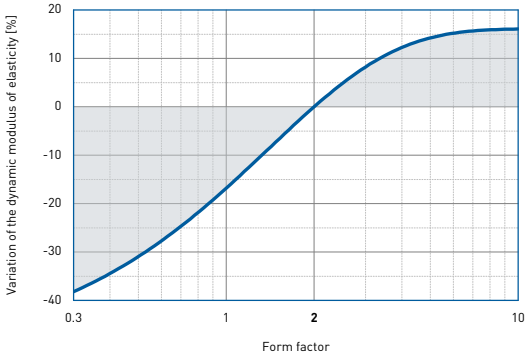


Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKAFOAM VF 950 on a stiff subgrade.
Form factor q = 2

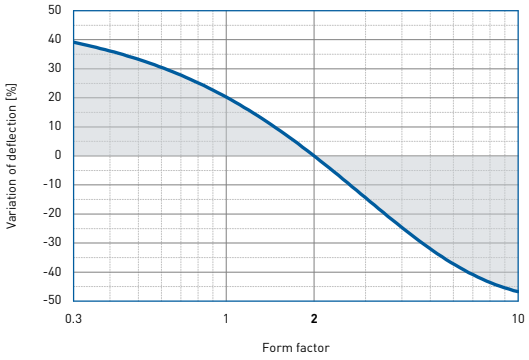
Static load range



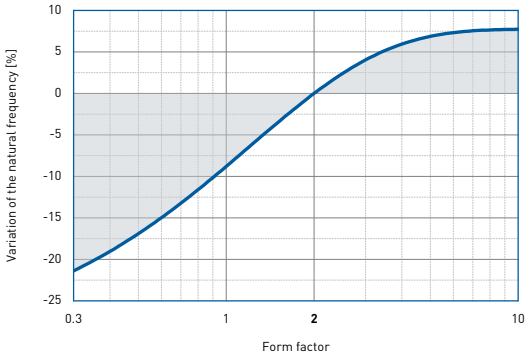
Dynamic modulus of elasticity @ 10Hz



Deflection



Natural frequency

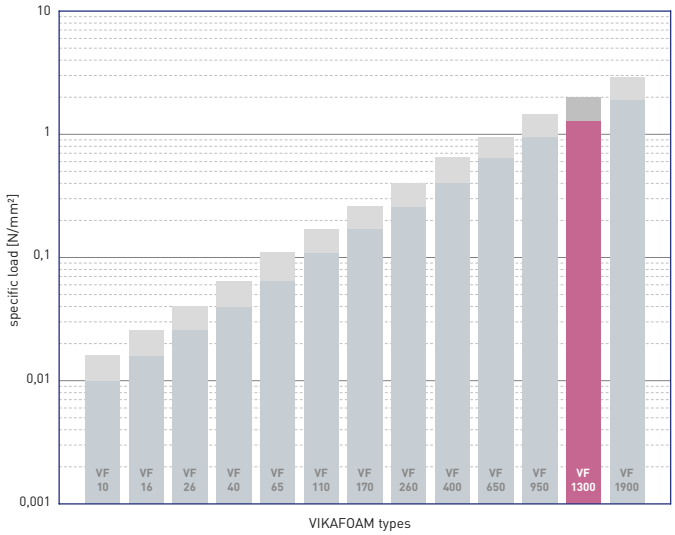


Correction values varying form factors specific load 0.9 N/mm².
Form factor q = 2

Vikafoam

VF1300

Working range



VF 1300

Recommendations for elastic bearing

Static load: up to [N/mm²]

1.300

Dynamic load: up to [N/mm²]

2.000

Load peaks: up to [N/mm²]

6.5

Values depending on form factor and apply to form factor q = 3

- Material mixed cellular polyether-urethane
- Colour violet

Sheet specifications

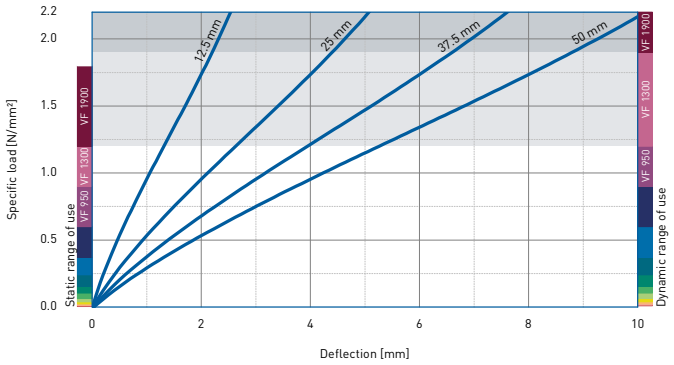
- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.09	DIN 53513 [2]	guide value
Static E-modulus [1]	12.0 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	35.2 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	1.23 N/mm²	DIN 53513 [2]	preload 1.30 N/mm²
Dynamic shear modulus [1]	3.51 N/mm²	DIN 53513 [2]	preload 1.30 N/mm², 10 Hz
Resistance to strain	1.340 N/mm²		at 10% deformation
Residual compression set	< 9 %	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Tensile strength	> 4.40 N/mm²	DIN 53455-6-4	minimum
Elongation at break	> 400 %	DIN 53455-6-4	minimum
Tear resistance	> 5.4 N/mm	DIN ISO 34-1/A	
Rebound elasticity	40 %	DIN EN ISO 8307	± 10%
Specific volume resistance	$>10^{11}$ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.11 W/[m·K]	DIN 52612-1	
Operating temperature	-30 to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

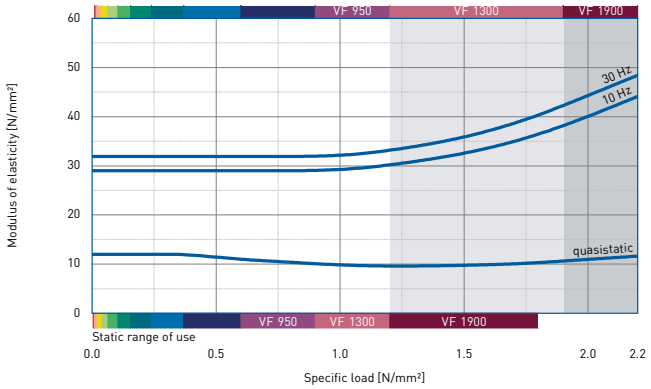
[1] measured at maximum limit of static application range
[2] test according to DIN 53513
All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
We reserve the right to amend the data.

Load deflection curve



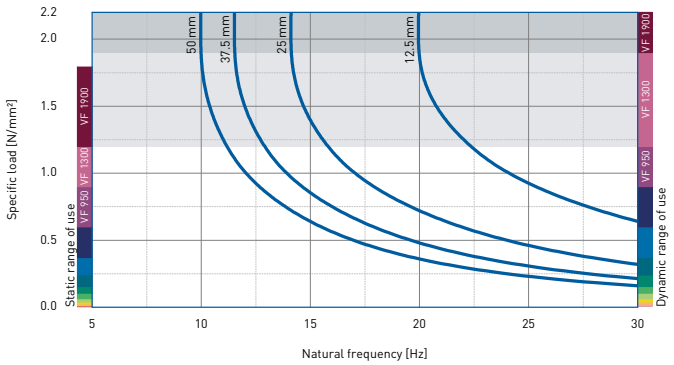
Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 2

Modulus of elasticity



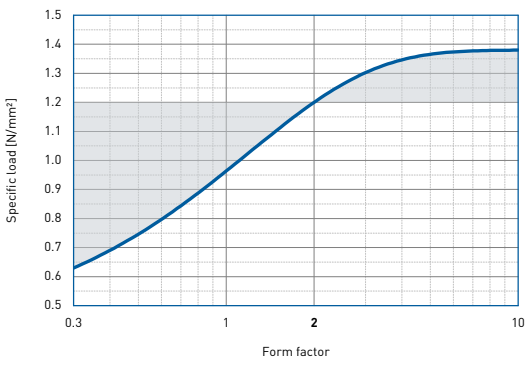
- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.22 mm at 10 Hz and ± 0.08 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 2

Natural frequency based on the Modulus of elasticity @ 10Hz

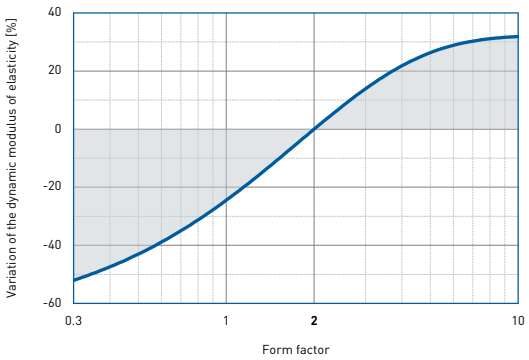


Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKAFOAM VF 1300 on a stiff subgrade.
Form factor q = 2

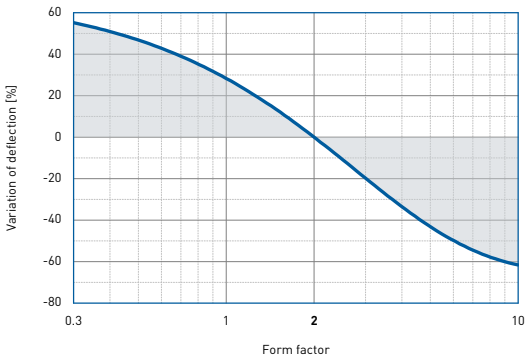
Static load range



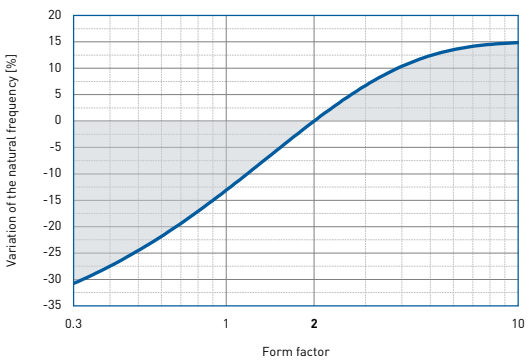
Dynamic modulus of elasticity @ 10Hz



Deflection



Natural frequency

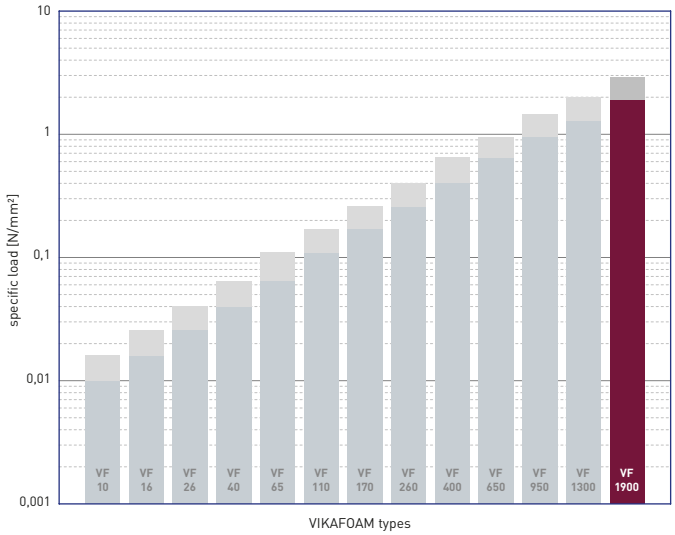


Correction values varying form factors specific load 1.2 N/mm².
Form factor q = 2

Vikafoam

VF1900

Working range



VF 1900

Recommendations for elastic bearing

Static load: up to [N/mm²]

1.900

Dynamic load: up to [N/mm²]

2.800

Load peaks: up to [N/mm²]

7.0

Values depending on form factor and apply to form factor q = 3

- Material mixed cellular polyether-urethane
- Colour bordeaux red

Sheet specifications

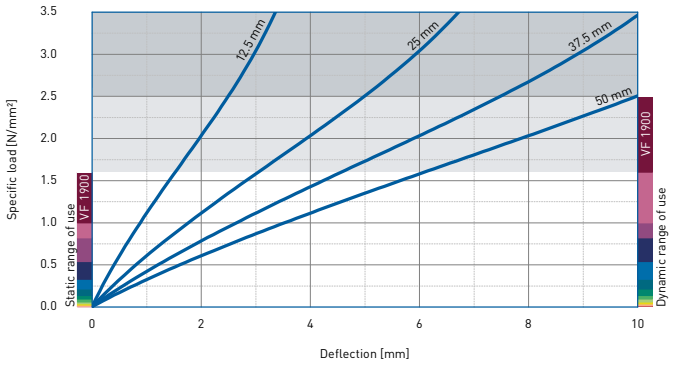
- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.09	DIN 53513 [2]	guide value
Static E-modulus [1]	20.4 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	78.2 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	1.75 N/mm²	DIN 53513 [2]	preload 1.90 N/mm²
Dynamic shear modulus [1]	6.00 N/mm²	DIN 53513 [2]	preload 1.90 N/mm², 10 Hz
Resistance to strain	1.840 N/mm²		at 10% deformation
Residual compression set	< 8 %	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Tensile strength	> 5.00 N/mm²	DIN 53455-6-4	minimum
Elongation at break	> 400 %	DIN 53455-6-4	minimum
Tear resistance	> 6.0 N/mm	DIN ISO 34-1/A	
Rebound elasticity	40 %	DIN EN ISO 8307	± 10%
Specific volume resistance	$>10^{11}$ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.11 W/[m·K]	DIN 52612-1	
Operating temperature	-30 to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

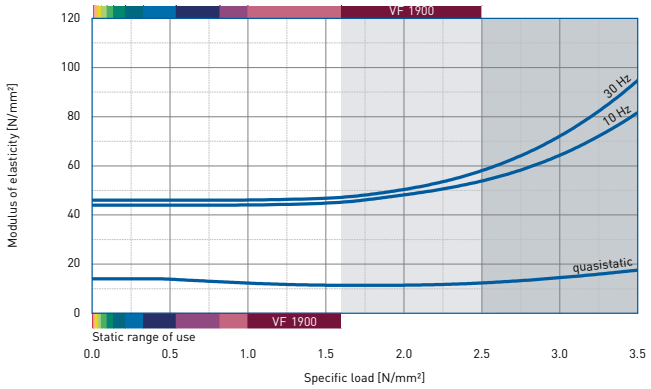
[1] measured at maximum limit of static application range
[2] test according to DIN 53513
All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
We reserve the right to amend the data.

Load deflection curve



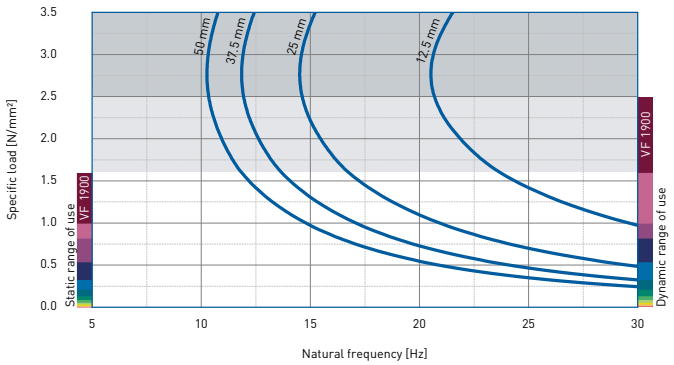
Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 1.25

Modulus of elasticity



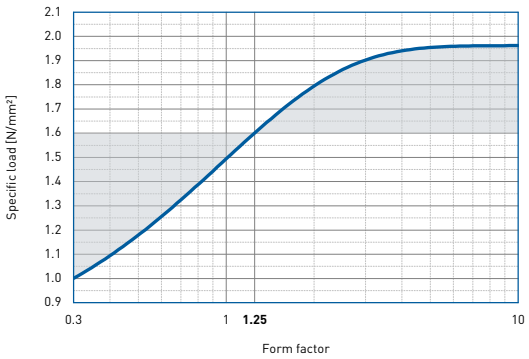
- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.22 mm at 10 Hz and ± 0.08 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 1.25

Natural frequency based on the Modulus of elasticity @ 10Hz

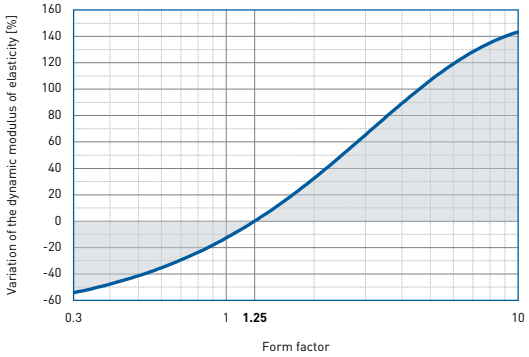


Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKAFOAM VF 1900 on a stiff subgrade.
Form factor q = 1.25

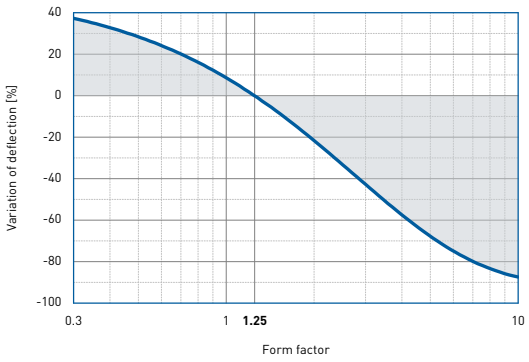
Static load range



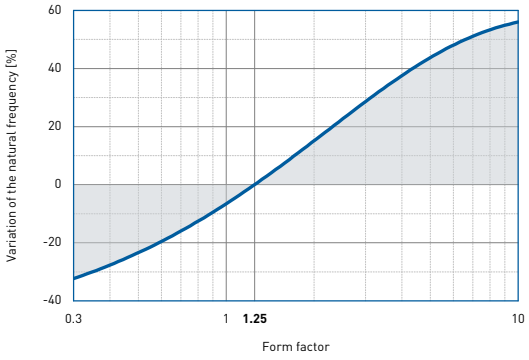
Dynamic modulus of elasticity @ 10Hz



Deflection

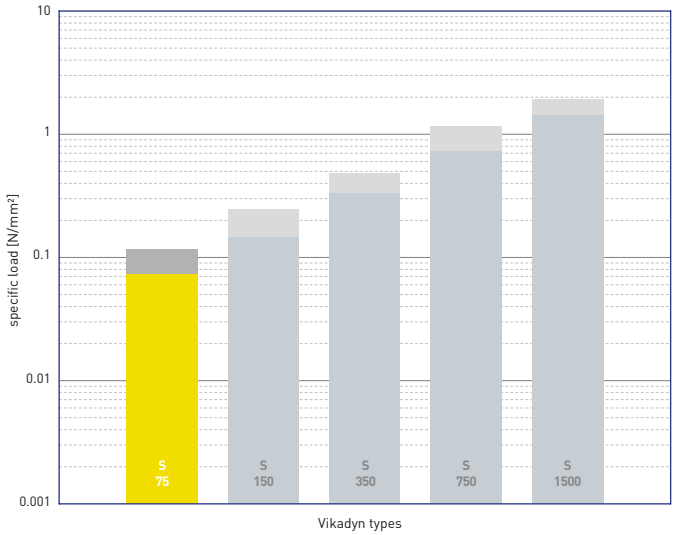


Natural frequency



Correction values varying form factors specific load 1.6 N/mm².
Form factor q = 1.25

Working range



VD 75

Recommendations for elastic bearing

Static load: up to [N/mm²]

0.075

Dynamic load: up to [N/mm²]

0.120

Load peaks: up to [N/mm²]

2.0

Values depending on form factor and apply to form factor q = 3

- Material closed cellular polyether-urethane
- Colour yellow

Sheet specifications

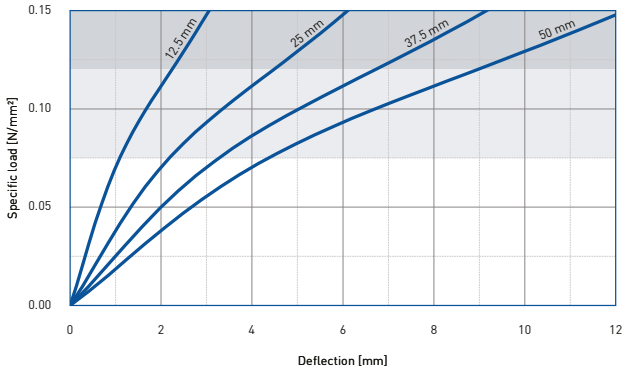
- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.06	DIN 53513 [2]	guide value
Static E-modulus [1]	0.63 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	0.92 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	0.16 N/mm²	DIN 53513 [2]	preload 0.075 N/mm²
Dynamic shear modulus [1]	0.27 N/mm²	DIN 53513 [2]	preload 0.075 N/mm², 10 Hz
Resistance to strain	0.083 N/mm²		at 10% deformation
Residual compression set	< 5 %	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Tensile strength	> 1.5 N/mm²	DIN 53455-6-4	minimum
Elongation at break	> 500 %	DIN 53455-6-4	minimum
Tear resistance	> 1.6 N/mm	DIN ISO 34-1/A	
Rebound elasticity	70 %	DIN EN ISO 8307	± 10%
Specific volume resistance	$>10^{11}$ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.06 W/[m·K]	DIN 52612-1	
Operating temperature	-30 up to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

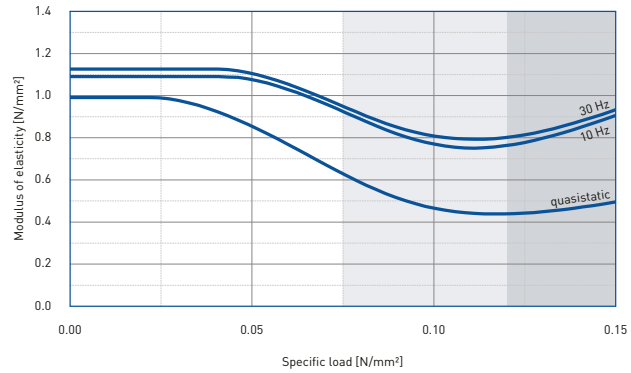
[1] measured at maximum limit of static application range
[2] test according to DIN 53513
All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
We reserve the right to amend the data.

Load deflection curve



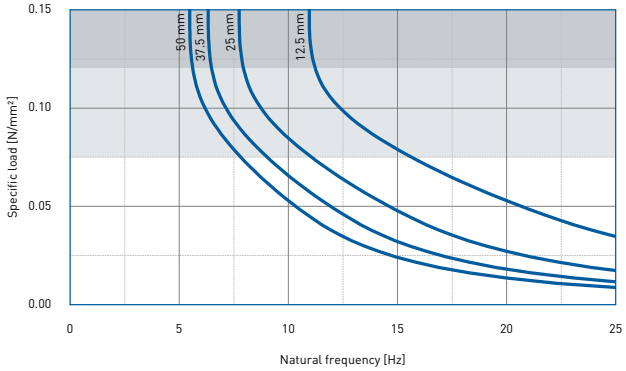
Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 3

Modulus of elasticity



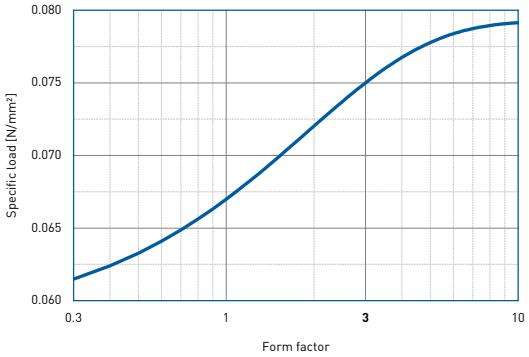
- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.11 mm at 10 Hz and ± 0.04 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 3

Natural frequency based on the Modulus of elasticity @ 10Hz

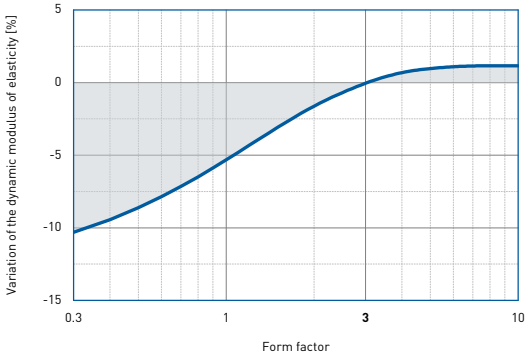


Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKADYN VD 150 on a stiff subgrade.
Form factor q = 3

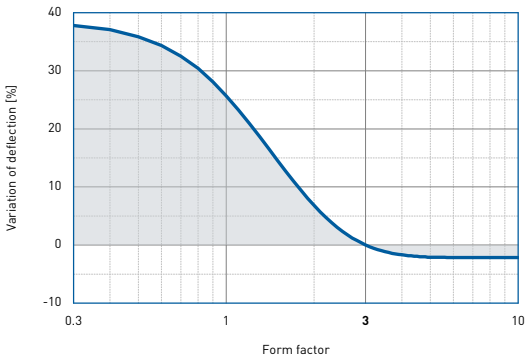
Static load range



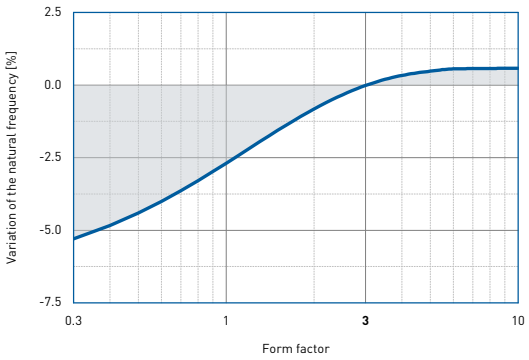
Dynamic modulus of elasticity @ 10Hz



Deflection

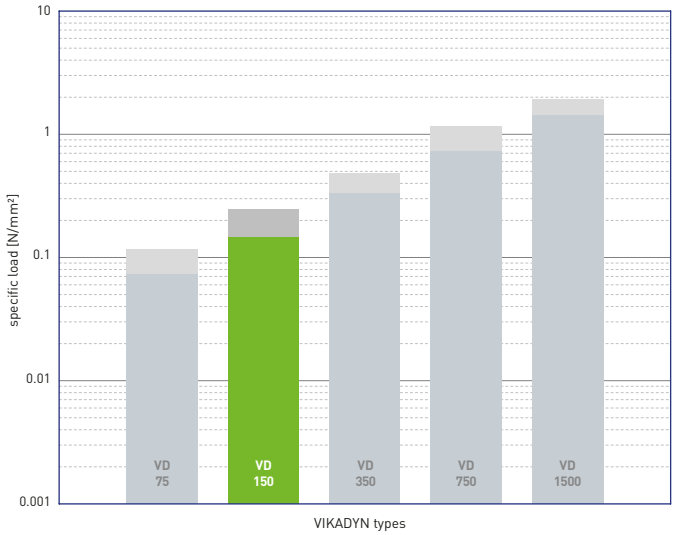


Natural frequency



Correction values varying form factors specific load 0.15 N/mm².
Form factor q = 3

Working range



VD 150

Recommendations for elastic bearing

Static load: up to [N/mm²]

0.150

Dynamic load: up to [N/mm²]

0.250

Load peaks: up to [N/mm²]

3.0

Values depending on form factor and apply to form factor q = 3

- Material closed cellular polyether-urethane
- Colour green

Sheet specifications

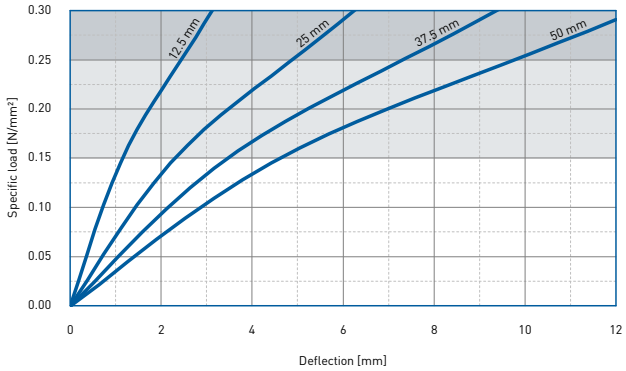
- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.03	DIN 53513 [2]	guide value
Static E-modulus [1]	1.25 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	1.65 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	0.22 N/mm²	DIN 53513 [2]	preload 0.15 N/mm²
Dynamic shear modulus [1]	0.35 N/mm²	DIN 53513 [2]	preload 0.15 N/mm², 10 Hz
Resistance to strain	0.16 N/mm²		at 10% deformation
Residual compression set	< 5 %	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Tensile strength	> 2.0 N/mm²	DIN 53455-6-4	minimum
Elongation at break	> 500 %	DIN 53455-6-4	minimum
Tear resistance	> 2.1 N/mm	DIN ISO 34-1/A	
Rebound elasticity	70 %	DIN EN ISO 8307	± 10%
Specific volume resistance	$>10^{11}$ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.075 W/[m·K]	DIN 52612-1	
Operating temperature	-30 up to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

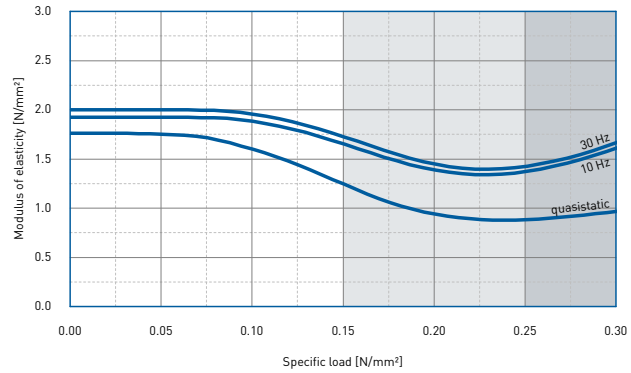
[1] measured at maximum limit of static application range
[2] test according to DIN 53513
All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
We reserve the right to amend the data.

Load deflection curve



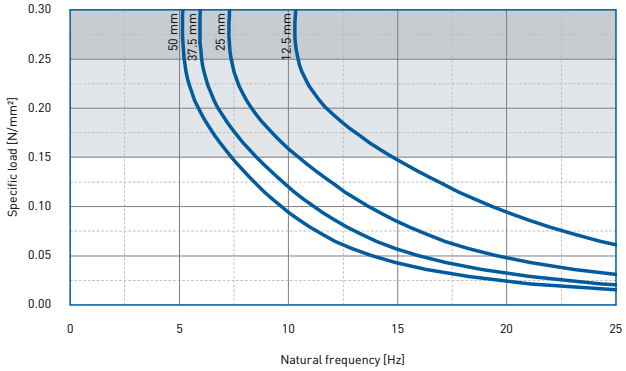
Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 3

Modulus of elasticity



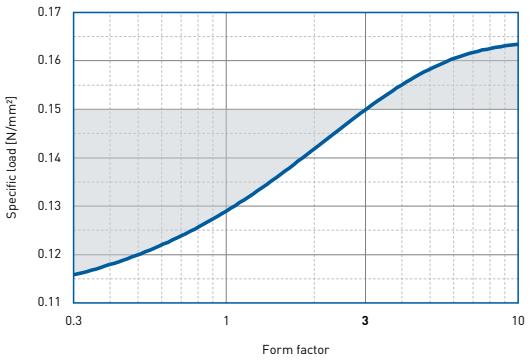
- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.11 mm at 10 Hz and ± 0.04 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 3

Natural frequency based on the Modulus of elasticity @ 10Hz

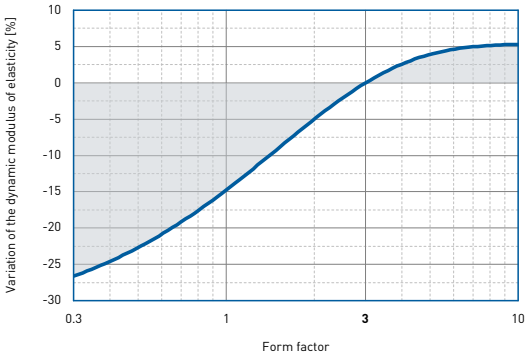


Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKADYN VD 150 on a stiff subgrade.
Form factor q = 3

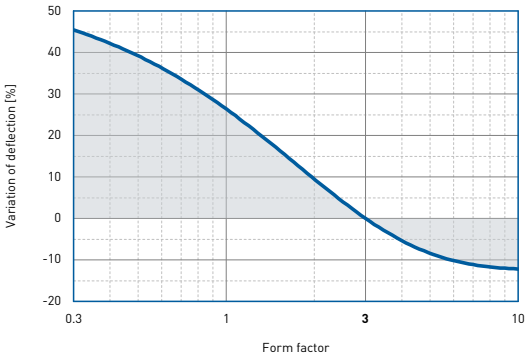
Static load range



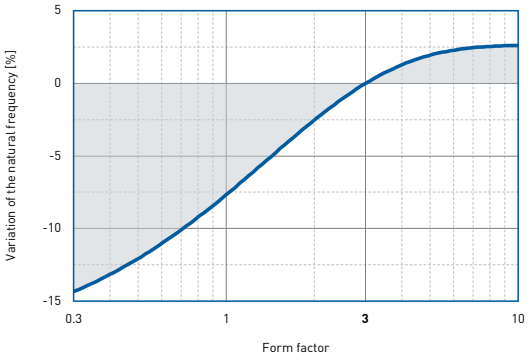
Dynamic modulus of elasticity @ 10Hz



Deflection

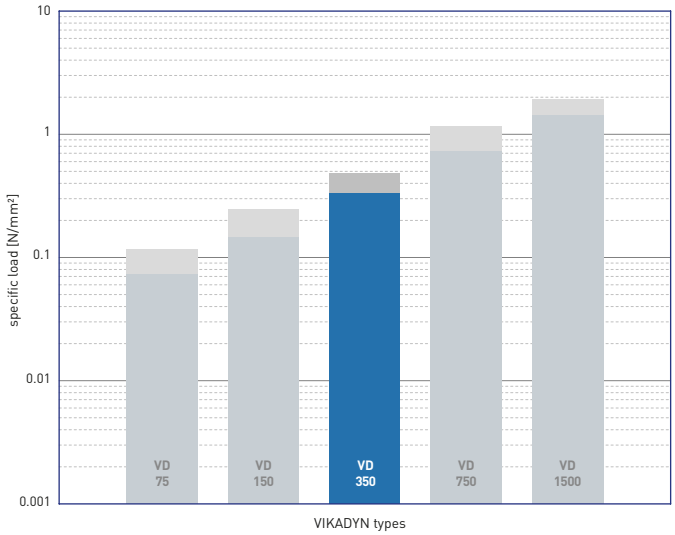


Natural frequency



Correction values varying form factors specific load 0.15 N/mm².
Form factor q = 3

Working range



VD 350

Recommendations for elastic bearing

Static load: up to [N/mm²]

0.350

Dynamic load: up to [N/mm²]

0.500

Load peaks: up to [N/mm²]

4.0

Values depending on form factor and apply to form factor q = 3

- Material closed cellular polyether-urethane
- Colour blue

Sheet specifications

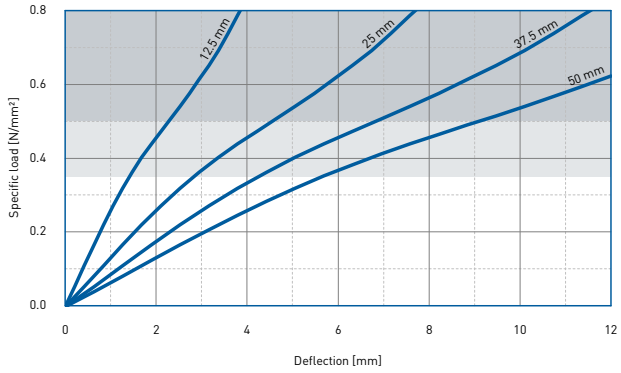
- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.03	DIN 53513 [2]	guide value
Static E-modulus [1]	2.53 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	3.25 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	0,35 N/mm²	DIN 53513 [2]	preload 0.35 N/mm²
Dynamic shear modulus [1]	0,52 N/mm²	DIN 53513 [2]	preload 0.35 N/mm², 10 Hz
Resistance to strain	0.32 N/mm²		at 10% deformation
Residual compression set	< 5 %	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Tensile strength	> 3.5 N/mm²	DIN 53455-6-4	minimum
Elongation at break	> 500 %	DIN 53455-6-4	minimum
Tear resistance	> 2.5 N/mm	DIN ISO 34-1/A	
Rebound elasticity	70 %	DIN EN ISO 8307	± 10%
Specific volume resistance	$>10^{11}$ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.09 W/[m·K]	DIN 52612-1	
Operating temperature	-30 up to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

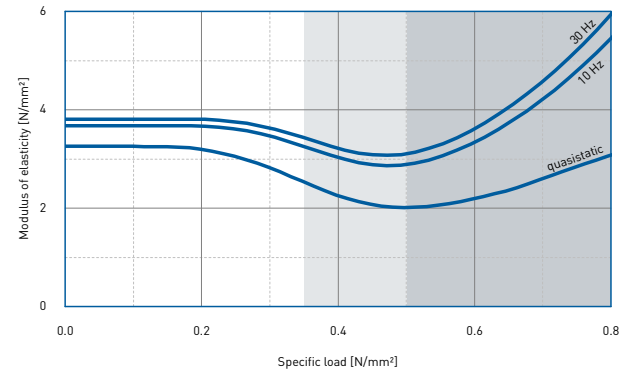
[1] measured at maximum limit of static application range
[2] test according to DIN 53513
All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
We reserve the right to amend the data.

Load deflection curve



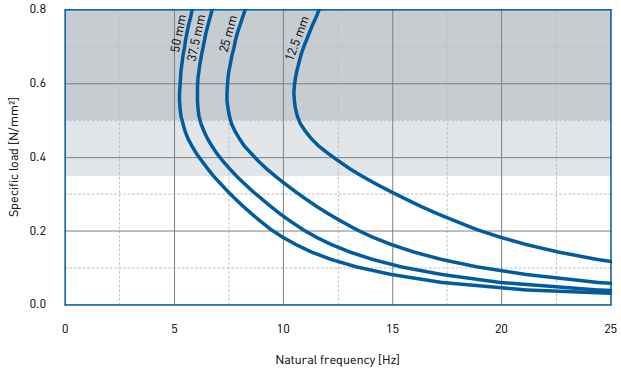
Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 3

Modulus of elasticity



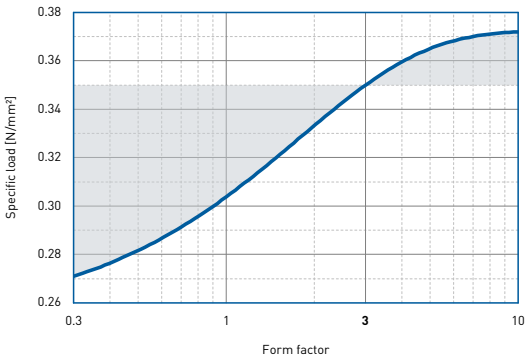
- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.11 mm at 10 Hz and ± 0.04 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 3

Natural frequency based on the Modulus of elasticity @ 10Hz

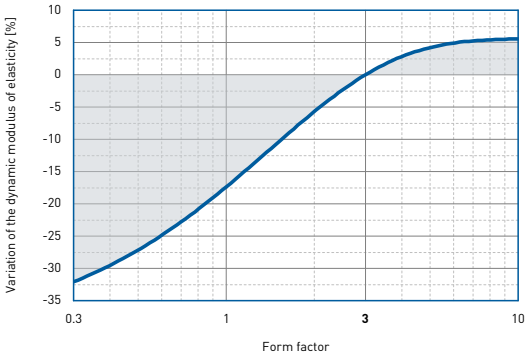


Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKADYN VD 350 on a stiff subgrade.
Form factor q = 3

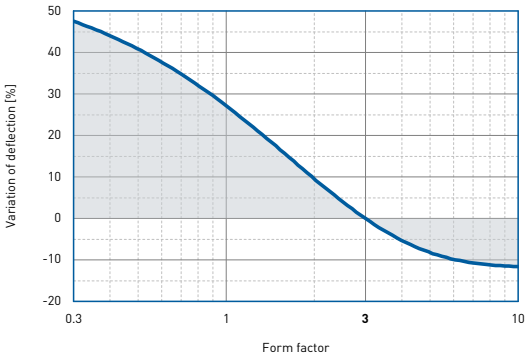
Static load range



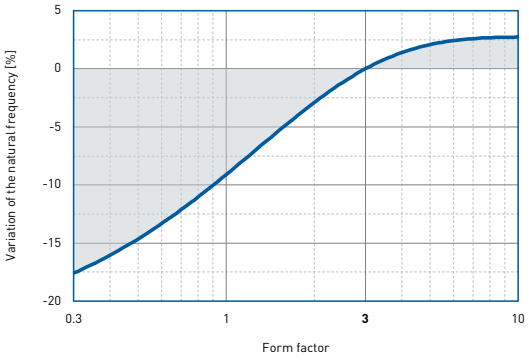
Dynamic modulus of elasticity @ 10Hz



Deflection

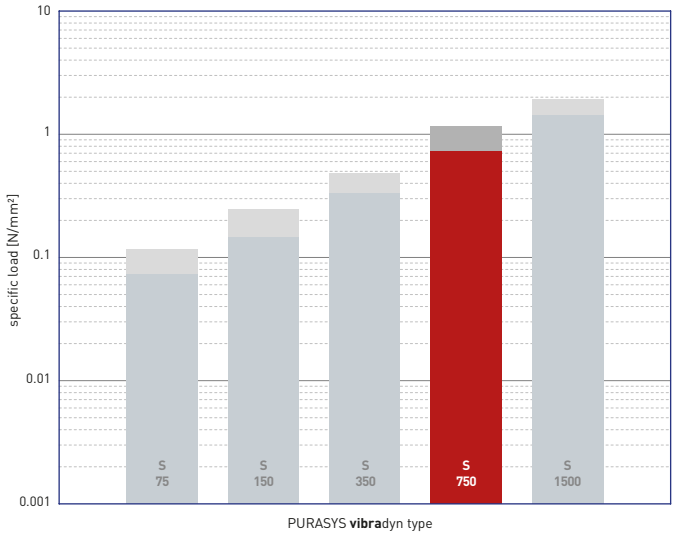


Natural frequency



Correction values varying form factors specific load 0.35 N/mm².
Form factor q = 3

Working range



Recommendations for elastic bearing

Static load: up to [N/mm²]

0.750

Dynamic load: up to [N/mm²]

1.200

Load peaks: up to [N/mm²]

6.0

Values depending on form factor and apply to form factor q = 3

- Material closed cellular polyether-urethane
- Colour red

Sheet specifications

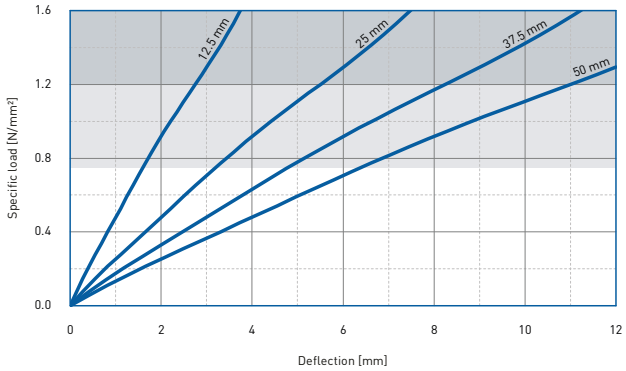
- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.04	DIN 53513 [2]	guide value
Static E-modulus [1]	5.21 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	8.88 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	0.80 N/mm²	DIN 53513 [2]	preload 0.75 N/mm²
Dynamic shear modulus [1]	1.22 N/mm²	DIN 53513 [2]	preload 0.75 N/mm², 10 Hz
Resistance to strain	0.59 N/mm²		at 10% deformation
Residual compression set	< 6 %	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Tensile strength	> 5.0 N/mm²	DIN 53455-6-4	minimum
Elongation at break	> 500 %	DIN 53455-6-4	minimum
Tear resistance	> 4.3 N/mm	DIN ISO 34-1/A	
Rebound elasticity	70 %	DIN EN ISO 8307	± 10%
Specific volume resistance	$>10^{11}$ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.10 W/[m·K]	DIN 52612-1	
Operating temperature	-30 up to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

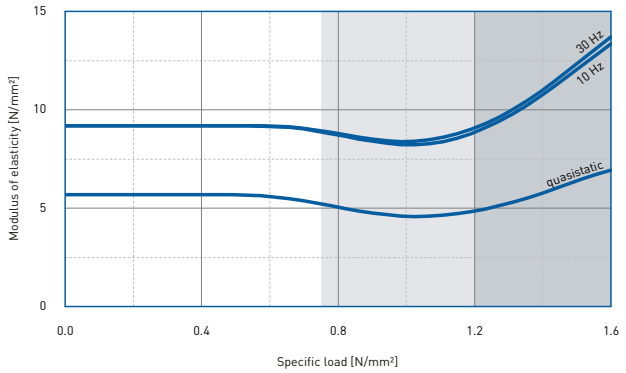
[1] measured at maximum limit of static application range
[2] test according to DIN 53513
All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
We reserve the right to amend the data.

Load deflection curve



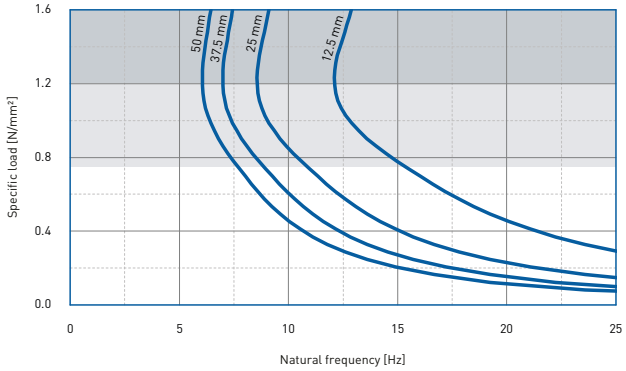
Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 3

Modulus of elasticity



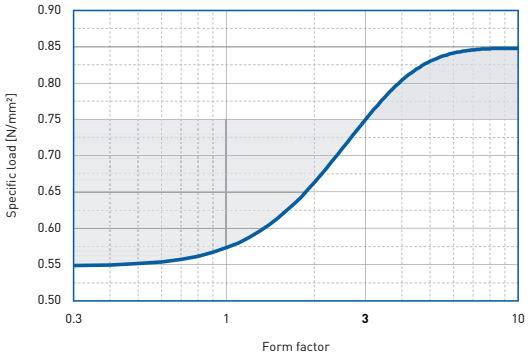
- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.11 mm at 10 Hz and ± 0.04 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 3

Natural frequency based on the Modulus of elasticity @ 10Hz

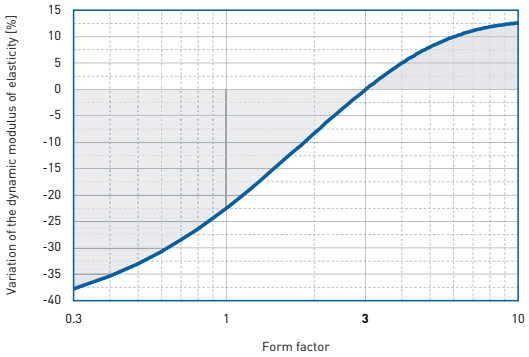


Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKADYN VD 350 on a stiff subgrade.
Form factor q = 3

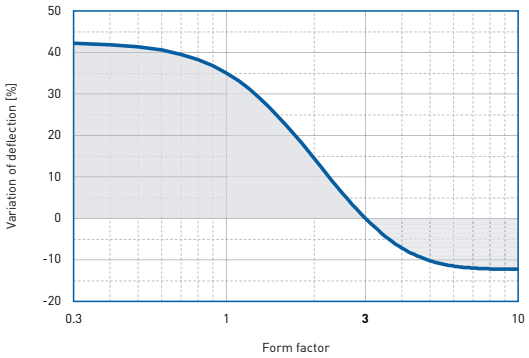
Static load range



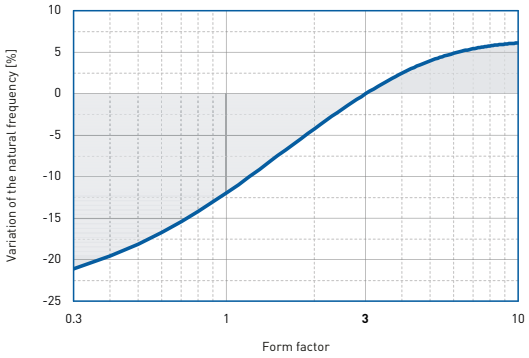
Dynamic modulus of elasticity @ 10Hz



Deflection



Natural frequency

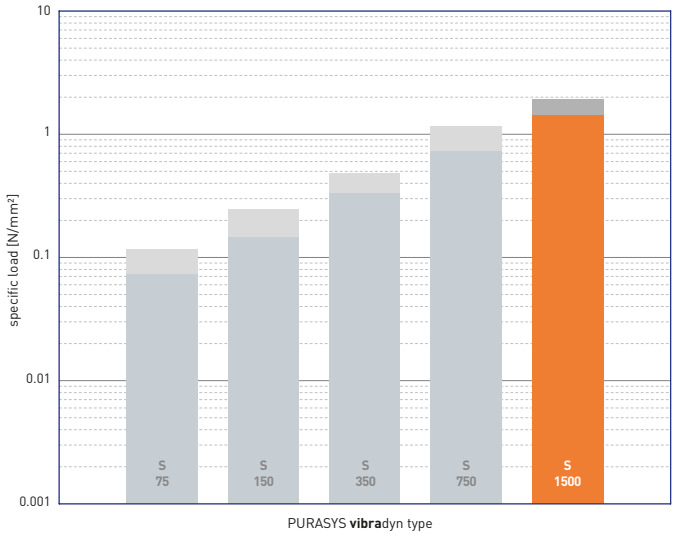


Correction values varying form factors specific load 0.35 N/mm².
Form factor q = 3

Vikadyn

VD1500

Working range



VD 1500

Recommendations for elastic bearing

Static load: up to [N/mm²]

1.500

Dynamic load: up to [N/mm²]

2.000

Load peaks: up to [N/mm²]

8.0

Values depending on form factor and apply to form factor q = 3

- Material closed cellular polyether-urethane
- Colour orange

Sheet specifications

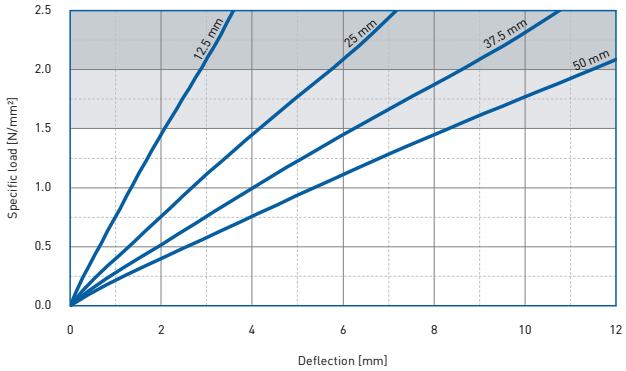
- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.05	DIN 53513 [2]	guide value
Static E-modulus [1]	9.21 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	16.66 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	1.15 N/mm²	DIN 53513 [2]	preload 1.5 N/mm²
Dynamic shear modulus [1]	1.69 N/mm²	DIN 53513 [2]	preload 1.5 N/mm², 10 Hz
Resistance to strain	0.94 N/mm²		at 10% deformation
Residual compression set	< 8 %	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Tensile strength	> 7.0 N/mm²	DIN 53455-6-4	minimum
Elongation at break	> 500 %	DIN 53455-6-4	minimum
Tear resistance	> 5.6 N/mm	DIN ISO 34-1/A	
Rebound elasticity	70 %	DIN EN ISO 8307	± 10%
Specific volume resistance	$>10^{11}$ Ω·cm	DIN IEC 93	dry
Thermal conductivity	0.11 W/[m·K]	DIN 52612-1	
Operating temperature	-30 up to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

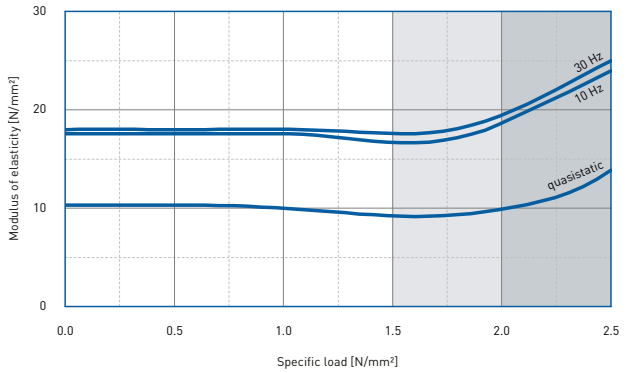
[1] measured at maximum limit of static application range
[2] test according to DIN 53513
All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
We reserve the right to amend the data.

Load deflection curve



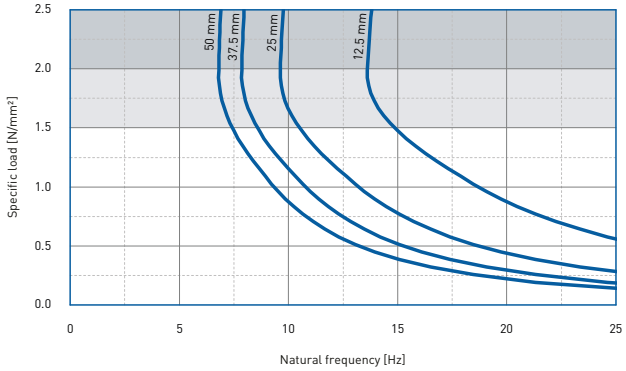
Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 3

Modulus of elasticity



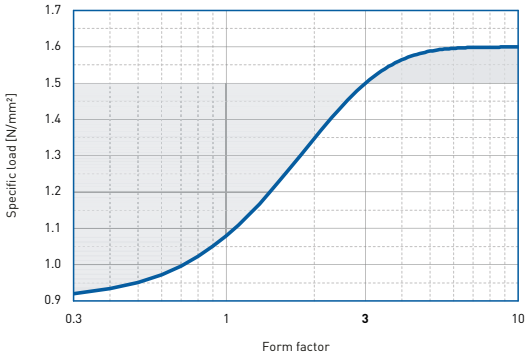
- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.11 mm at 10 Hz and ± 0.04 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 3

Natural frequency based on the Modulus of elasticity @ 10Hz

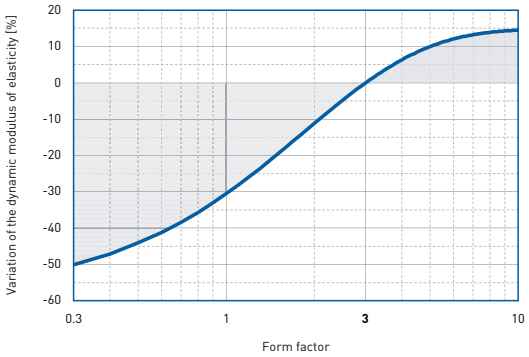


Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKADYN VD 350 on a stiff subgrade.
Form factor q = 3

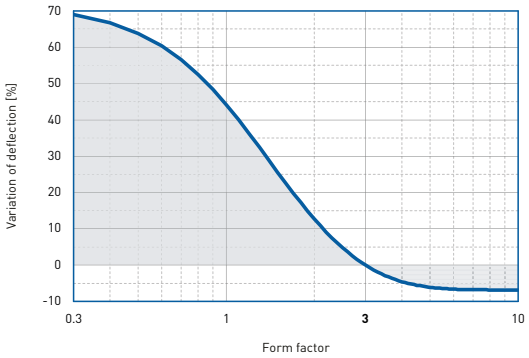
Static load range



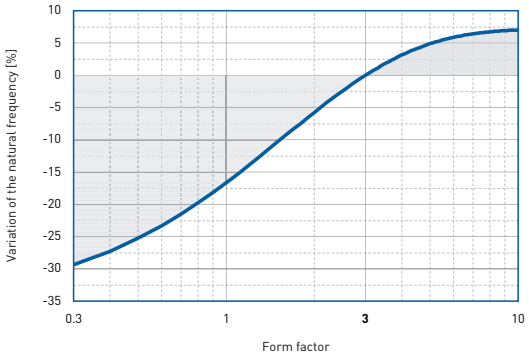
Dynamic modulus of elasticity @ 10Hz



Deflection



Natural frequency



Correction values varying form factors specific load 0.35 N/mm².
Form factor q = 3

Working range

Recommendations for elastic bearing

Static load: up to [N/mm²]

3.00

Dynamic load: up to [N/mm²]

4.50

Load peaks: up to [N/mm²]

10.5

Values depending on form factor and apply to form factor q = 3

- Material closed cellular polyether-urethane
- Colour blue

Sheet specifications

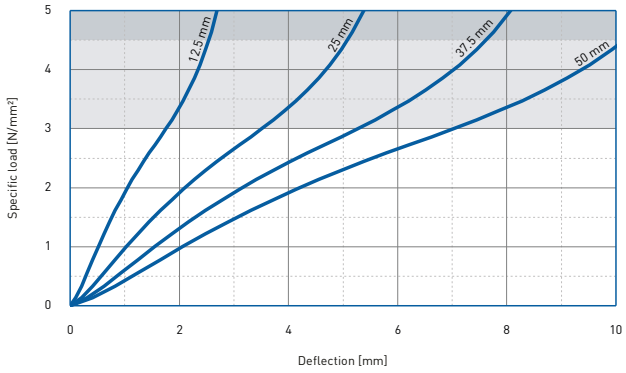
- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.09	DIN 53513 [2]	guide value
Static E-modulus [1]	17 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	43 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	1.93 N/mm²	DIN 53513 [2]	preload 3.0 N/mm²
Dynamic shear modulus [1]	4.0 N/mm²	DIN 53513 [2]	preload 3.0 N/mm², 10 Hz
Resistance to strain	2.3 N/mm²		at 10% deformation
Residual compression set	< 5%	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Operating temperature	-30 to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

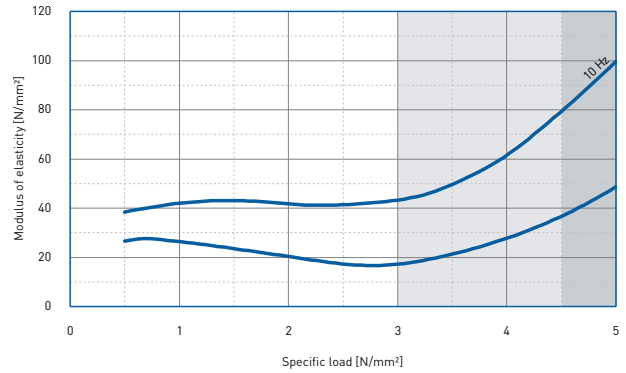
[1] measured at maximum limit of static application range
[2] test according to DIN 53513
All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
We reserve the right to amend the data.

Load deflection curve



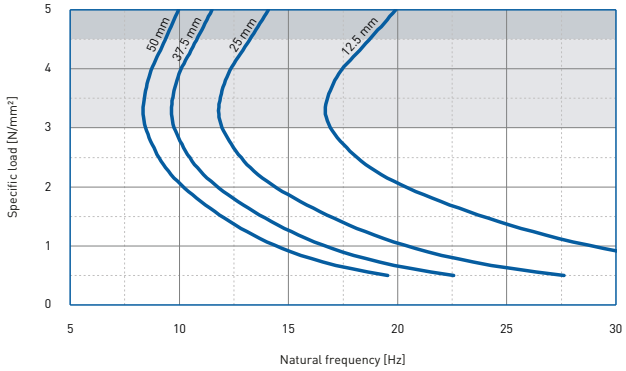
Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 3

Modulus of elasticity



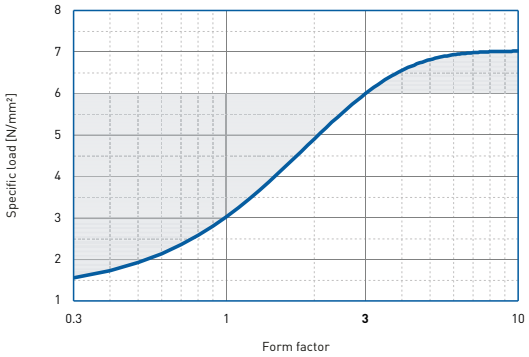
- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.11 mm at 10 Hz and ± 0.04 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 3

Natural frequency based on the Modulus of elasticity @ 10Hz

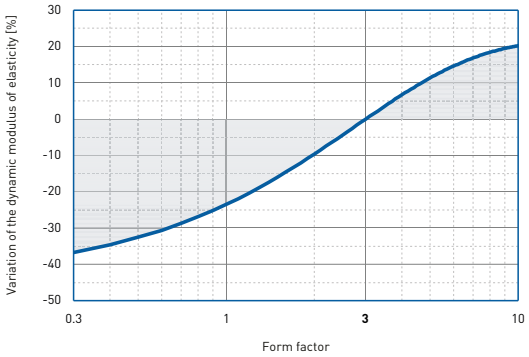


Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKADYN VD 350 on a stiff subgrade.
Form factor q = 3

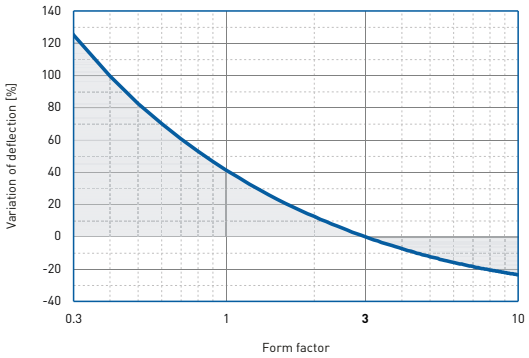
Static load range



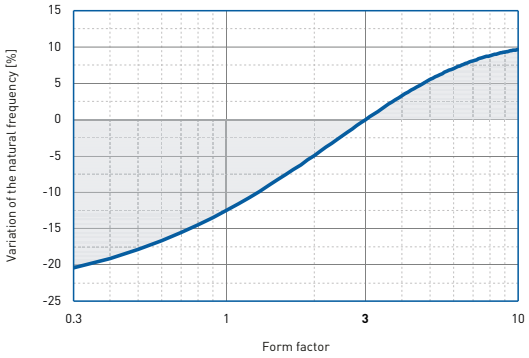
Dynamic modulus of elasticity @ 10Hz



Deflection



Natural frequency



Correction values varying form factors specific load 0.35 N/mm².
Form factor q = 3

Working range

Recommendations for elastic bearing

Static load: up to [N/mm²]

6.00

Dynamic load: up to [N/mm²]

9.00

Load peaks: up to [N/mm²]

18.0

Values depending on form factor and apply to form factor q = 3

- Material closed cellular polyether-urethane
- Colour black grey

Sheet specifications

- Standard Thickness 12.5 mm and 25 mm
- Custom Thickness Combine two or more sheets
- Dimensions 2.000 x 500 mm

Other dimensions on request (also stamping and moulded parts).

Properties	Value	Test method	Comment
Mechanical loss factor [1]	0.11	DIN 53513 [2]	guide value
Static E-modulus [1]	55 N/mm²	DIN 53513 [2]	
Dynamic E-modulus [1]	135 N/mm²	DIN 53513 [2]	
Static shear modulus [1]	3.5 N/mm²	DIN 53513 [2]	preload 6.0 N/mm²
Dynamic shear modulus [1]	6.0 N/mm²	DIN 53513 [2]	preload 6.0 N/mm², 10 Hz
Resistance to strain	4.2 N/mm²		at 10% deformation
Residual compression set	< 5%	DIN EN ISO 1856	50%, 23°C, 70 h, 30 min after unloading
Operating temperature	-30 to +70 °C		
Temperature peak	+120 °C		
Inflammability	Class E / EN 13501-1	EN ISO 11925-1	normal flammable

[1] measured at maximum limit of static application range
[2] test according to DIN 53513
All information and data is based on our current knowledge. The data are subject to typical manufacturing tolerances and are not guaranteed.
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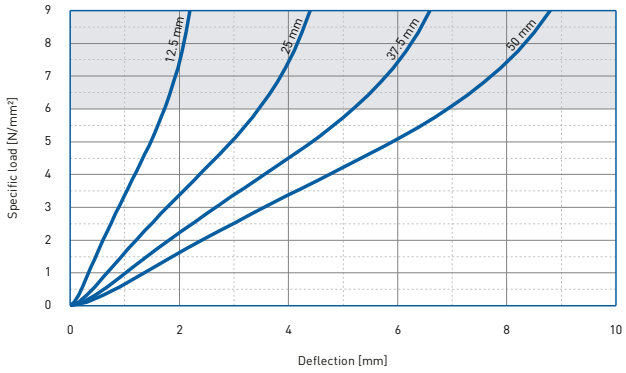
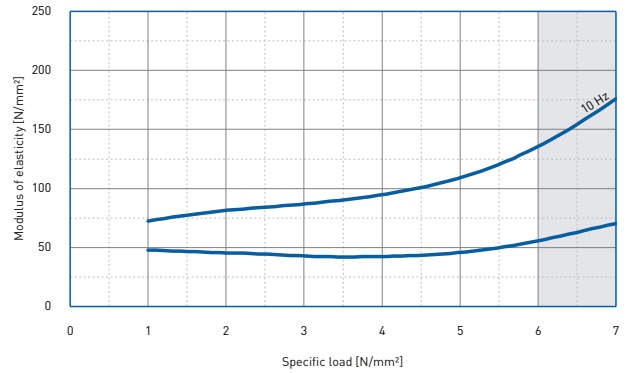
Load deflection curve



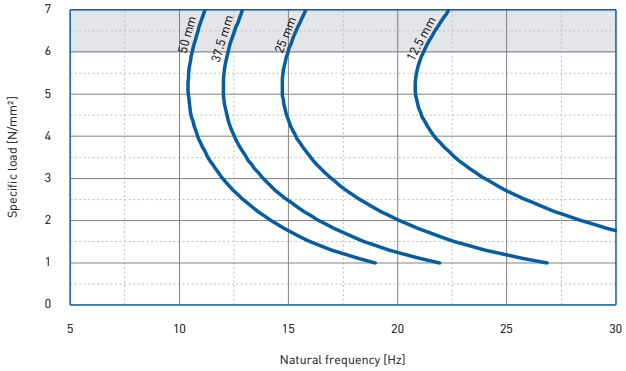
Recording of the 3rd loading; testing between steel plates at room temperature measured with a deflection rate of 1% of the thickness per second.
Form factor q = 3

Modulus of elasticity



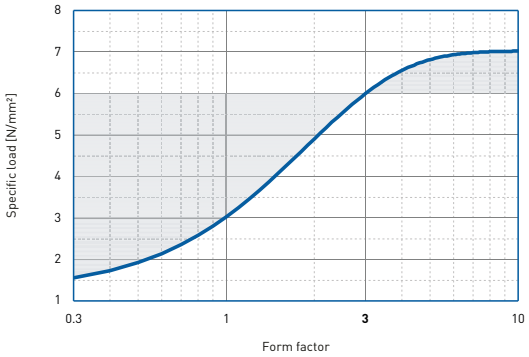
- Dynamic test: sinusoidal excitation with an oscillating range of ± 0.11 mm at 10 Hz and ± 0.04 mm at 30 Hz.
- Quasistatic modulus of elasticity: tangent modulus taken from the load deflection curve.
- Test according to DIN 53513. Form factor q = 3

Natural frequency based on the Modulus of elasticity @ 10Hz

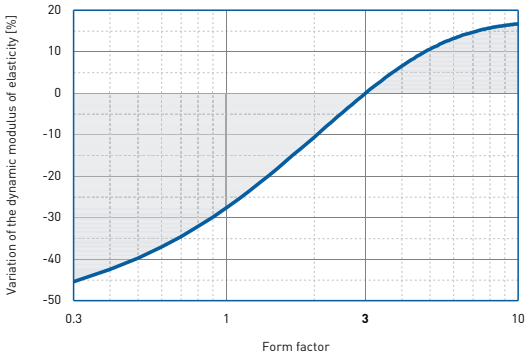


Natural frequency of a single-degree-of-freedom system consisting of a fixed mass and an elastic bearing consisting of VIKADYN VD 350 on a stiff subgrade.
Form factor q = 3

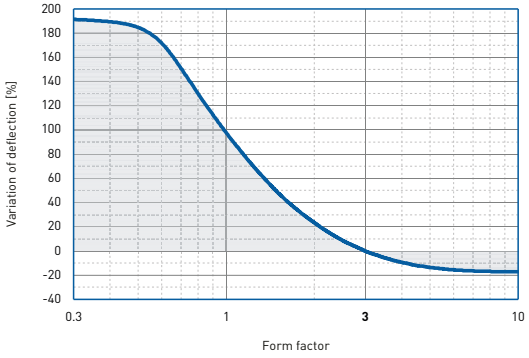
Static load range



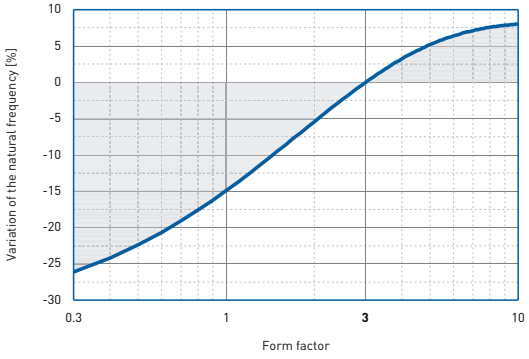
Dynamic modulus of elasticity @ 10Hz



Deflection



Natural frequency



Correction values varying form factors specific load 0.35 N/mm².
Form factor q = 3

Referenceliste for flydende gulve

VIKAFOAM / VIKACELL

Amager Bakke Denmark
- Waste-to-Heat Plant, Floating floor, 3.650 m² with VIKACELL

Sillebroen Denmark
- Cinema, room-in-room, four theaters on VIKACELL

University of Southern Denmark Denmark
- Floating floor, around electron microscope on VIKACELL

CINEMAXX Denmark
- Cinema, one theater, on VIKAFOAM

Grundfos Denmark
- Floating floor, carpet type, on 75 mm thick VIKAFOAM

Sony Ericsson Sweden
- Anechoic chamber, on VIKAFOAM

Danish Technical University Denmark
- Audiology room, on VIKAFOAM

Sennheiser Communications Denmark
- Three sound quality rooms, on VIKAFOAM

Østfold Sykehus Norway
- Audiometry room, on VIKAFOAM

Danish Technical University Denmark
- Five test boxes, on VIKAFOAM

Dammam University Saudi Arabia
- Anechoic and reverberation chamber, on VIKAFOAM

Sydvest Sygehus Denmark
- Audiometry room, on VIKAFOAM

Akershus University Hospital Norway
- Four audiometry rooms, on VIKAFOAM

Flight Medical Centre (Copenhagen University Hospital) Denmark
- Audiometry room, clinical testing, on VIKAFOAM

Helsingborg Hospital Sweden
- Three audiometry rooms, on VIKAFOAM

Aalborg Centre for Deaf-Blindness and Hearing Loss Denmark
- Audiometry room, Cochlear implants, on VIKAFOAM

Herning Private Clinic Denmark
- Two audiometry rooms, on VIKAFOAM

Ryhov Hospital Sweden
- Audiometry room, on VIKAFOAM

Nässjö Hospital Sweden
- Audiometry room, on VIKAFOAM

Norwegian University of Science and Technology Norway
- Two voice-over-booths, Psychological research ,on VIKAFOAM

Lund University Hospital Sweden
- Anechoic chamber and audiometry chamber for clinical testing and research, on VIKAFOAM

Statped (Trondheim) Norway
- Voice-over-booth, on VIKAFOAM

Danish Technical University Denmark
- Three audiometry chambers, Centre for Applied Hearing Research, on VIKAFOAM

Danmarks Radio Denmark
- Three news sports studios, on VIKAFOAM

DELTA Denmark
- Hørsholm: EBU, reference class listening chamber, on VIKAFOAM
- Odense (new facility): Three anechoic chambers, hearing aid certification measurements, on VIKAFOAM
- Odense University: Anechoic chamber, hearing aid certification measurements, on VIKAFOAM

GN ReSound Denmark
- Three audiometry chambers, audiology research, on VIKAFOAM

Nokia Denmark
- Anechoic chamber, two Listeningchambers, on VIKAFOAM

Oticon Denmark
- Copenhagen: Nine anechoic chambers, on VIKAFOAM
- Copenhagen: Three audiometry chambers, on VIKAFOAM
- Eriksholm: Double wall anechoic chamber on VIKAFOAM
- Espergærde: Mini sound shelter, research, on VIKAFOAM

Aalborg University Denmark
- Anechoic chamber, two listening chambers, on VIKAFOAM

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Dørsalg
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Åbningstider
Mandag - torsdag: kl. 8 - 16
Fredag: kl. 8 - 15

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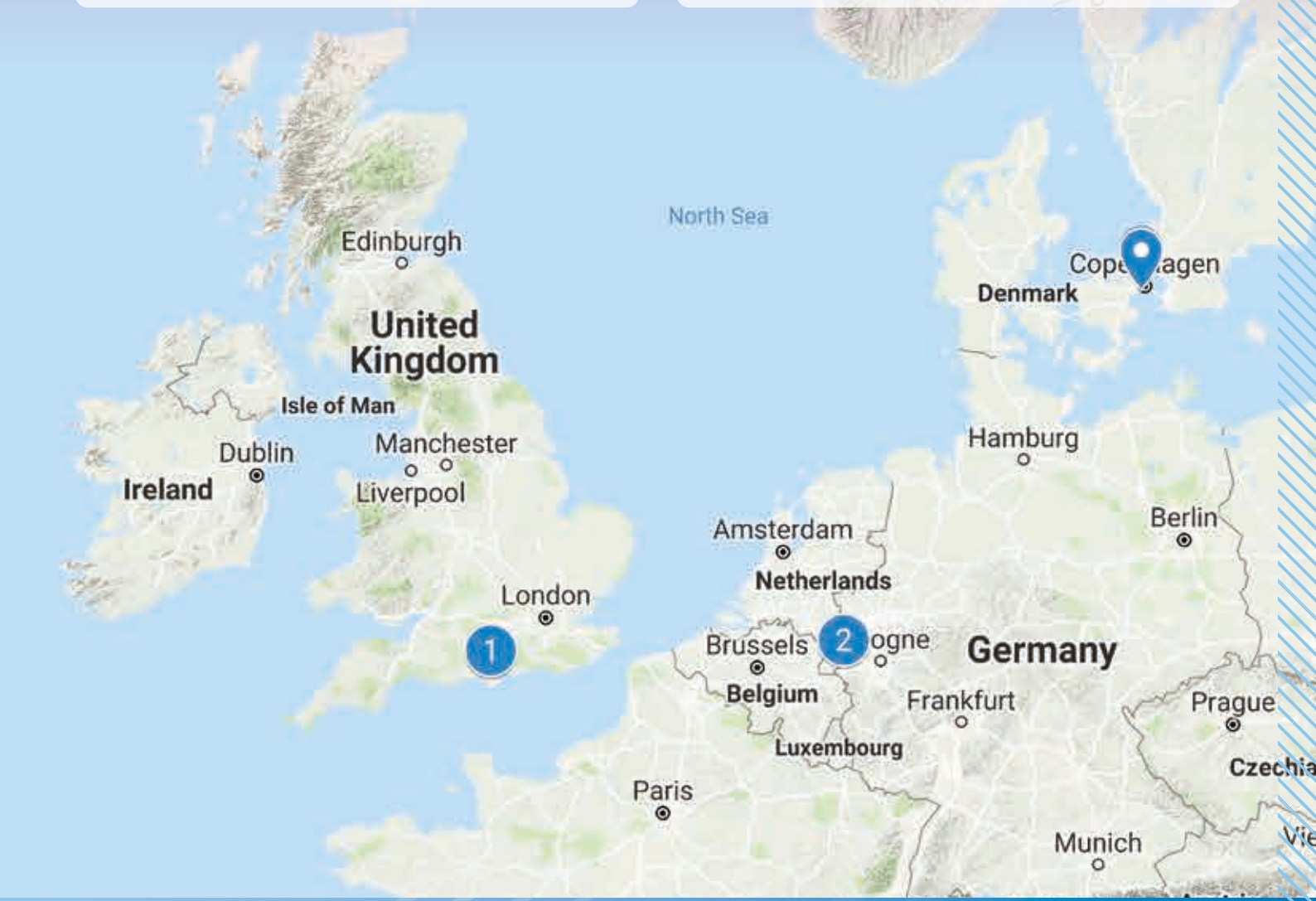

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