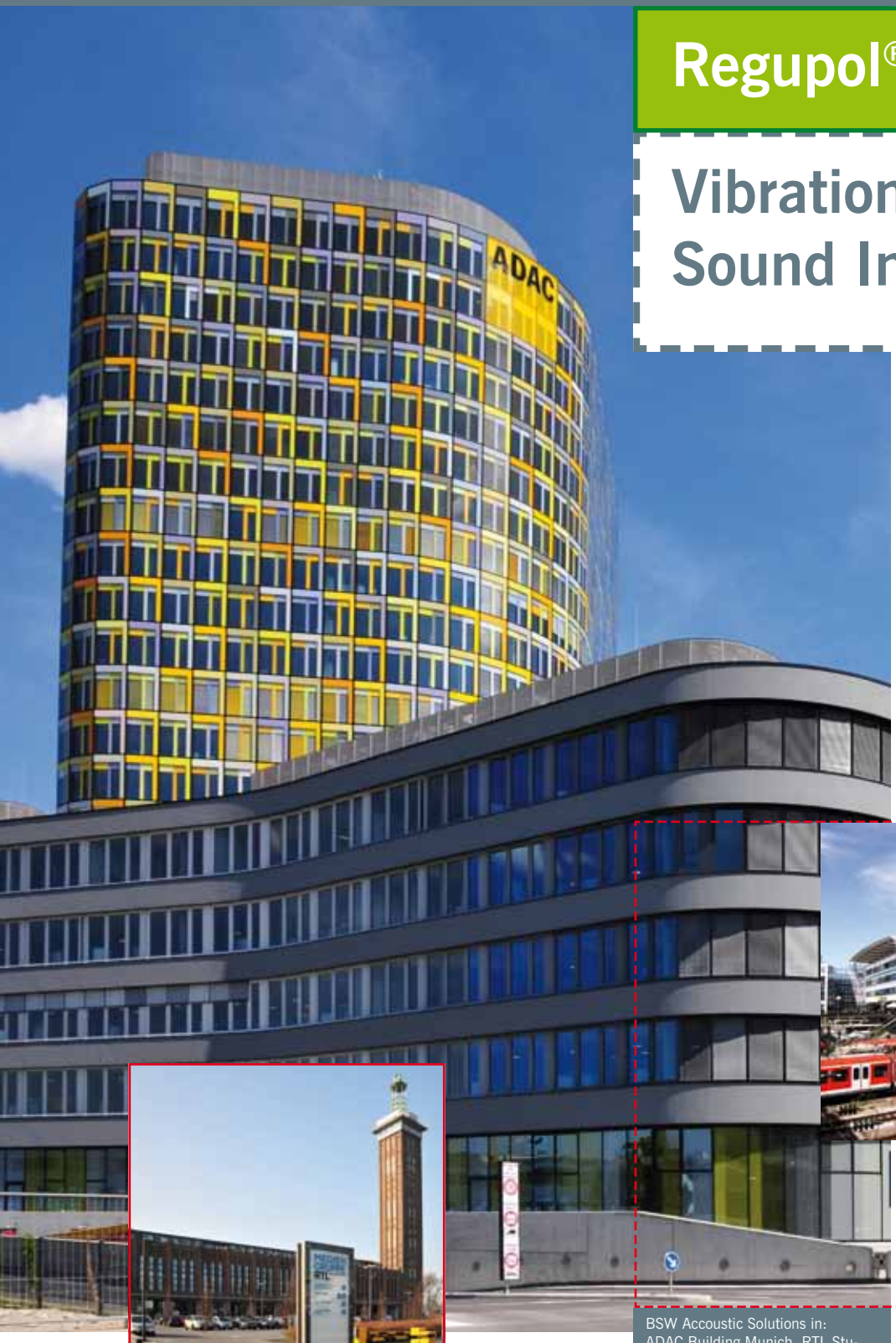
on your wavelength

Regupol® | Regufoam®

Vibration Technology Sound Insulation

Technical Details:
Vibration Isolation,
Impact Sound Insulation
Under High Loads



BSW Accoustic Solutions in:
ADAC Building Munich, RTL Studios Cologne, Central Bus Station Munich

BSW

Table of Contents

BSW

BSW in Brief

BSW is a manufacturer of

- polyurethane foam for vibration isolation
- polyurethane-bonded rubber materials for impact noise insulation and vibration isolation
- composites of various materials bonded with polyurethane
- blocks and cuts of composite foam
- sports surfaces and special flooring
- anti-slip mats for load securing

German Trade Register
Siegen HRB-No. 6381

Managing Directors
Ulf Pöppel, Rainer Pöppel

VAT Reg. No.
DE 126586778

Number of employees in the group of companies
400

Sales by the group of companies
approx. € 88 million

Founded in 1954

Locations

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Vibration Isolation

AGBU administration building, Jerewan, Armenia: full-surface decoupling of the building foundation with **Regupol®**

Flight simulator Airbus A400M, Wunstorf, Germany: full-surface decoupling of machine foundation with **Regupol®**

Southhampton Row, London, UK: full surface decoupling of the building foundation with **Regufoam®**

Nextower, Palaisquartier, Frankfurt, Germany: vibration isolation of heating, ventilating, and air conditioning with **Regupol®**

Kurfürstenplatz, Munich, Germany: vertical decoupling of the building foundation with **Regupol®**

Commuter train station, Helsinki, Finland: **Regupol®** ballast mats

Impact Sound Insulation Under Screed

RTL-Studios, Cologne, Germany: room-in-room construction with **Regupol**® impact sound insulation under screed

ADAC Building, Munich, Germany: **Regupol**® impact sound insulation under screed in in-house printing plant

Wisselord-Studios, Hilversum, Netherlands: room-in-room construction with **Regufoam**®

Cinemagnum Cinema, Nuremberg, Germany: **Regupol**® impact sound insulation under screed in subterranean garage

Audi plant, Györ, Hungary: impact sound insulation under screed with **Regupol**® in heavy-load high-bay racking

Elbphilharmonie, Hamburg, Germany: **Regupol**® impact sound insulation under screed in concert halls and studios

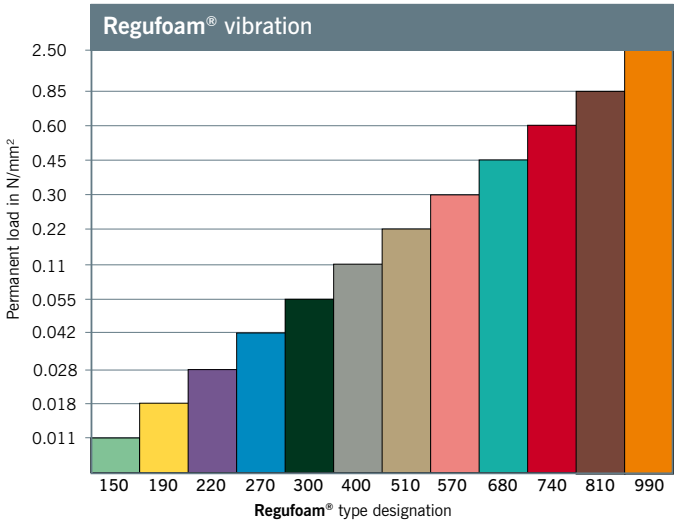
Technical Details Overview

Regufoam® vibration is a mixed cell polyurethane foam for vibration isolation. It is available in 12 different qualities.

Standard forms of delivery, ex warehouse
Rolls for types 150, 190, 220, 270, 300
Thickness: 12 and 25 mm, special thicknesses on request
Length: 5,000 mm, special lengths available
Width: 1,500 mm

Plates for types 400, 510, 570, 680, 740, 810, 990
Thickness: 12 and 25 mm, special thicknesses on request
Length: 1,500 mm, special lengths available
Width: 1,00 mm

Stripping/Plates
On request
Die-cutting, water-jet cutting, self-adhesive versions possible



Regufoam® vibration Colour	150 plus Green	190 plus Yellow	220 plus Purple	270 plus Blue	300 plus Black	400 plus Grey	510 plus Beige	570 plus Rose	680 plus Turquoise	740 plus Red	810 plus Brown	990 plus Orange
Continuous static load N/mm²	0.011	0.018	0.028	0.042	0.055	0.11	0.22	0.30	0.45	0.60	0.85	2.50
Optimum load range N/mm²	0.004 to 0.011	0.011 to 0.018	0.018 to 0.028	0.028 to 0.042	0.042 to 0.055	0.055 to 0.11	0.11 to 0.22	0.22 to 0.30	0.30 to 0.45	0.45 to 0.60	0.60 to 0.85	0.85 to 2.50
Tensile strength[1] N/mm²	0.31	0.4	0.5	0.9	1.2	1.5	2.4	2.9	3.6	4.0	4.6	6.9
Mechanical loss factor[2]	0.28	0.25	0.22	0.20	0.18	0.17	0.15	0.14	0.12	0.11	0.10	0.09
Static modulus of elasticity[3] N/mm²	0.06 to 0.16	0.1 to 0.25	0.15 to 0.35	0.25 to 0.45	0.35 to 0.58	0.6 to 1.0	1.1 to 1.7	2.6 to 2.7	2.0 to 2.9	4.3 to 5.9	5.8 to 7.2	20.0 to 78.0
Dynamic modulus of elasticity[4] N/mm²	0.15 to 0.38	0.25 to 0.55	0.35 to 0.75	0.60 to 1.05	0.68 to 1.25	1.2 to 2.0	2.2 to 3.7	5.1 to 6.3	6.8 to 10.0	7.9 to 13.0	11.0 to 16.5	41.0 to 160.0
Compression hardness[5] kPa	14	22	22	63	82	170	330	620	840	1050	1241	3640
Fire behaviour	B2, E											

1 Measurement based on DIN EN ISO 1798
2 Measurement based on DIN 53513; load-, amplitude- and frequency-dependent.
3 Measurement based on an EN 826.
4 Measurement based on DIN 53513; depending in frequency, load and thickness
5 Measurement based on DIN EN ISO 3386-2; compressive stress at 25 % deformation, depending on thickness.

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Downloads at www.bsw-vibration-technology.com

Regufoam® – Mixed-Cell Polyurethane Elastomers

Material Composition

Regufoam® elastomers consist of a mixed-cell polyurethane foam. Similar to the various **Regupol®** types, **Regufoam®** isolation materials have been precisely designed for different load ranges. Various standard thicknesses of 12 mm, 25 mm, 37 mm and 50 mm cover a wide spectrum of support frequencies up to 8 Hz.

The successful use of polyurethanes in vibration isolation over the course of many years offers expert consultants a conventional solution and a valuable alternative to **Regupol®** elastomers.

Moreover, the BSW test lab offers the option of developing project- and application-specific elastomers with special properties.

Regufoam® elastomers and their specific load ranges can be distinguished from one another using colour codes (green, yellow, purple, blue, black, grey, beige, rose, turquoise, red, brown, orange).

Possible Uses

Due to their different dynamic rigidities and admissible load ranges, building and machine foundations can be placed elastically on strips or delicate point supports. Due to the low support frequencies, this type of support is technically efficient, but more difficult to plan and execute.

The majority of isolation jobs are performed on full-surface **Regufoam®** elastomers with lower rigidity, because this is more feasible and less error-prone.

The technical details, clearly arranged and determined as well as tested, provide a full overview of the load range of the **Regufoam®** elastomers and their non-linear material properties. They allow expert consultants to select and properly size the elastomer type that suits the situation at hand and meets its respective requirements.

Regufoam® elastomers are moisture- and rot-resistant. They are also ozone-resistant, but the colours may fade over time due to UV radiation. Because of their mixed-cell structure, especially types with lower dynamic rigidity can absorb water. These must be protected against water uptake.

Effectiveness of the **Regufoam®** Elastomers

Regufoam® elastomers can be specifically set for support frequencies between 20 Hz and 8 Hz in a broad load range from 0.011 N/mm² to 2.50 N/mm². Expert consultants in particular benefit from this large degree of flexibility.

The use of polyurethanes in vibration isolation over the course of many years offers expert consultants a conventional solution and valuable alternative. The admissible continuous load limits must be kept, as overload on the elastomers may lead to creep as well as rigidification of the material.

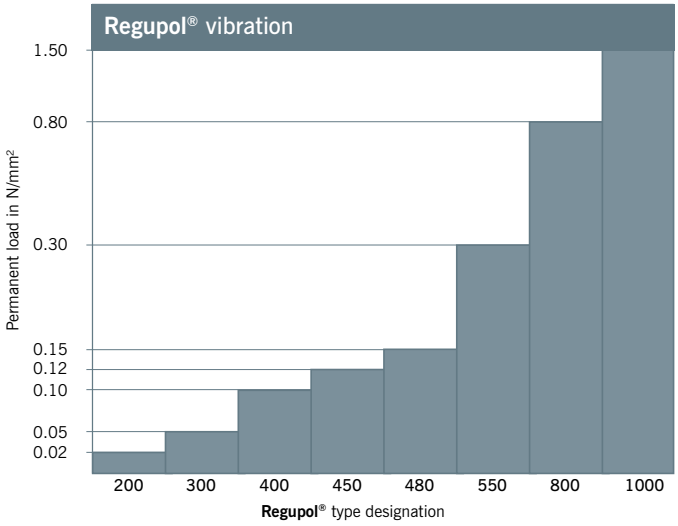
Regufoam® elastomers are produced and shipped in rolls. They can be cut to size with a standard utility knife right at the construction site. The professional company at the construction site is thus ensured that the installation is going to be simple, quick and, above all, cost-efficient.

Technical Details Overview

Regupol® vibration is a rubber-polyurethane-composite for vibration isolation. It is available in 8 different qualities.

Standard forms of delivery, ex warehouse
Depending on material. Exact dimensions are mentioned in the technical data sheets of each material type.

Stripping/Plates
On request
Die-cutting, water-jet cutting, self-adhesive versions possible



Regupol® vibration	200	300	400	450	480	550	800	1000
Continuous static load N/mm²	0.02	0.05	0.10	0.12	0.15	0.30	0.80	1.50
Optimum load range N/mm²	0.004 to 0.014	0.010 to 0.050	0.050 to 0.10	--[6]	0.10 to 0.15	0.15 to 0.30	0.20 to 0.80	0.80 to 1.50
Tensile strength[1] N/mm²	0.12	0.30	0.34	0.15	0.36	0.60	0.90	2.30
Mechanical loss factor[2]	0.22	0.18	0.17	0.2	0.17	0.16	0.18	0.16
Static modulus of elasticity[3] N/mm²	0.02 to 0.08	0.1 to 0.2	0.3 to 0.55	0.2 to 0.4	0.25 to 0.8	0.5 to 1.7	1.2 to 2.9	4.0 to 11.0
Dynamic modulus of elasticity[4] N/mm²	0.05 to 0.38	0.2 to 1.4	0.9 to 2.4	0.45 to 2.7	1.2 to 3.3	2.5 to 7.0	3.6 to 18.2	15.0 to 45.0
Compression hardness[5] kPa	14	50	180	83	220	415	545	1650
Fire behaviour	B2, E							

1 Measurement based on DIN EN ISO 1798
2 Measurement based on DIN 53513; load-, amplitude- and frequency-dependent.
3 Measurement based on an EN 826.
4 Measurement based on DIN 53513; depending in frequency, load and thickness
5 Measurement based on DIN EN ISO 3386-2; compressive stress at 25 % deformation, depending on thickness.
6 **Regupol® vibration 450** is used for vertical isolation.

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Downloads at www.bsw-vibration-technology.com

Regupol® Elastomer Mats

Material Composition

Regupol® elastomers are composed of SBR and NBR rubber elements. For their production, rubber granulates, rubber fibres and rubber crumbs are combined with one another, processed and elasticised with various polyurethanes using a special manufacturing method.

Eight different **Regupol®** elastomers are available for the daily requirements. They can be used in a very wide load range if required.

The **Regupol®** elastomers offer a solution that is technically sufficient as well as the most economical one available for most vibration-technology-related jobs.

Moreover, the BSW test lab offers the option of developing special, project- and application-specific types which can be given desired elastomer properties.

Regupol® elastomers can be distinguished from one another based on their individual load ranges and, accordingly, their dynamic rigidities.

Possible Uses

Regupol® elastomers are suitable for all different kinds of vibration isolation.

Due to higher dynamic rigidities and the admissible load ranges of some elastomer types, buildings and machine foundations can either be bedded elastically on strips or on delicate point supports. Due to the low support frequencies, this type of support is technically efficient, but more difficult to plan and execute. The majority of isolation jobs are performed on full-surface **Regupol®** elastomers with lower rigidity, because this is more feasible and less error-prone.

The technical details provide a full overview of the load range of the **Regupol®** elastomers and their non-linear material properties. They allow expert consultants to select and properly size the elastomer type that suits the situation at hand and meets its respective requirements.

Additional benefits of **Regupol®** elastomers are their excellent moisture resistance, their rot-proof properties, their ozone resistance and their permanent elasticity even after frost-thaw cycles.

The use of **Regupol®** is therefore admissible not only inside but also outside of buildings. The only exception here is **Regupol® vibration 200.** Because of its rigidity and its cellular structure this material has to be protected against water uptake.

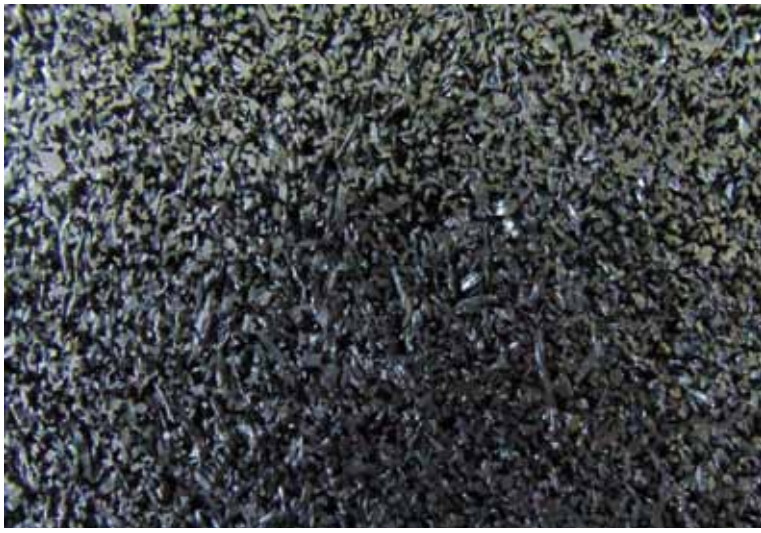
Effectiveness of the **Regupol®** Elastomers

Regupol® elastomers can be specifically set for support frequencies between 20 Hz and 10 Hz in a broad load range from 0.050 N/mm² to 1.50 N/mm². Expert consultants in particular benefit from this large degree of flexibility.

The natural frequency progressions of the **Regupol®** elastomers are benign, offering expert consultants nearly constant natural frequencies across a wide load range. This makes for a large degree of security in planning and execution.

The creep (or creep behaviour) is low for all different **Regupol®** elastomers at approx. 5–7% of the total thickness. The admissible permanent load limits are kept, the only effect of overloading on the elastomers is increased rigidity (rise in dynamic rigidity and natural frequency), which shows in progressive deflection.

Regupol® elastomers are produced and shipped in rolls. They can be cut to size with a standard utility knife right at the construction site. The professional company at the construction site is thus ensured that the installation is going to be simple, quick and cost-efficient.



on your wavelength

Regufoam®

Vibration Isolation Technical Details

Regufoam in:
Railway Station Sternschanze Hamburg, Wisselord Studios Hilversum, Machine Foundations

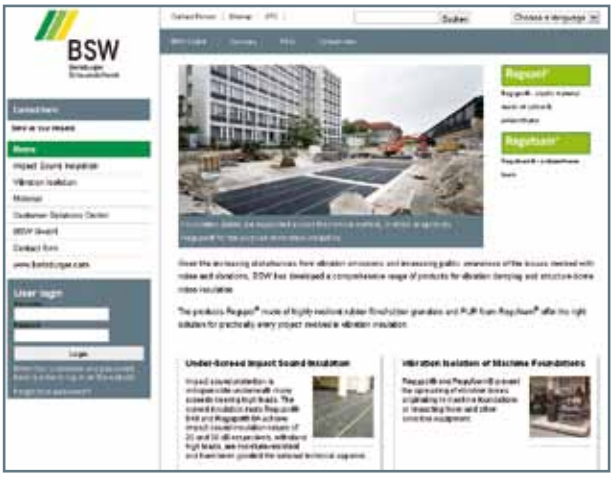
BSW

www.bsw-vibration-technology.com

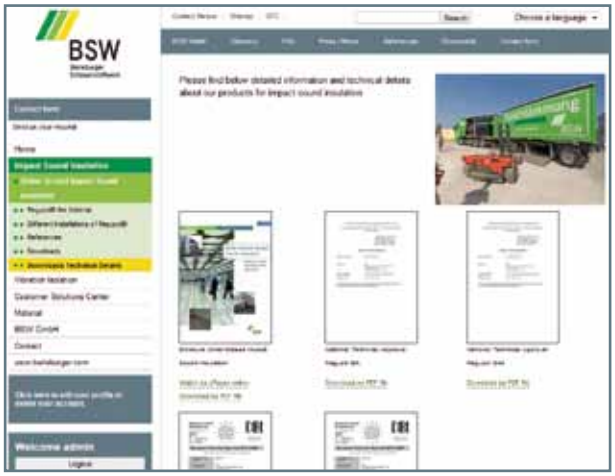
All Tools for the Download

You will find all documents and information which you need for making a decision, for calculation as well as the installation and application of the BSW vibration technology products, at **www.bsw-vibration-technology.com**. In a matter of seconds you can download technical datasheets, certificates and installation instructions, all in the required file formats.

Up to date information is provided on our website and in the PDF versions of this catalogue. The PDF versions are available for download on our website.



The website **www.bsw-vibration-technology.com** serves mainly as a planning basis for architectural acoustics and construction engineers. You must register to use the technical documents. BSW will send you your user name and password right away. Since being put up in January 2010, this website already has several hundred registered users.



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Regufoam® vibration 150 plus

Standard forms of delivery, ex warehouse
Rolls
Thickness: 12 and 25 mm, special thicknesses on request
Length: 5,000 mm, special lengths available
Width: 1,500 mm

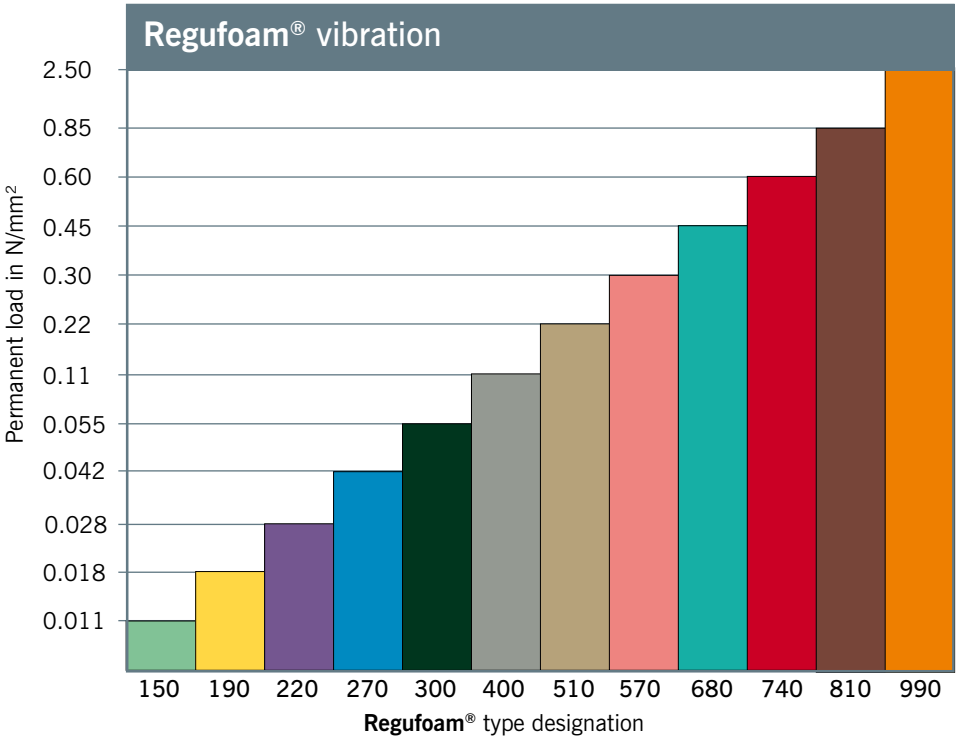
Stripping/Plates
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

Continuous static load
0.011 N/mm²
Continuous and variable loads/operating load range
0 to 0.016 N/mm²
Peak loads (rare, short-term loads)
0.5 N/mm²

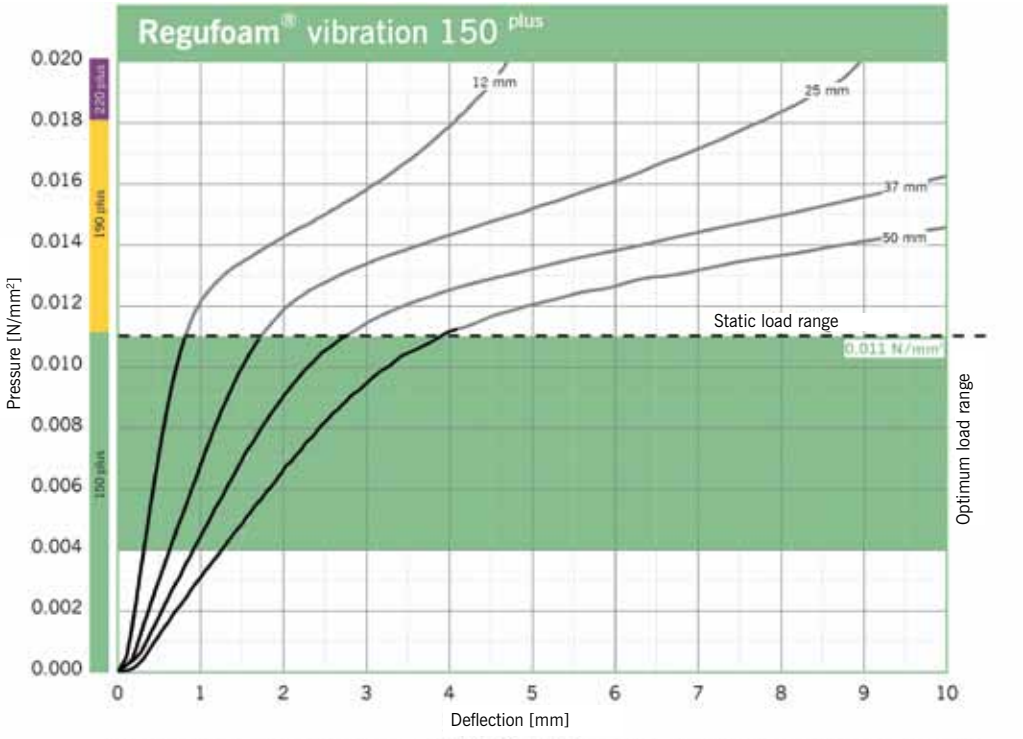
Static modulus of elasticity	Based on EN 826	0.06 - 0.16	N/mm²	Tangential modulus, see figure “Modulus of elasticity”
Dynamic modulus of elasticity	Based on DIN 53513	0.15 - 0.38	N/mm²	Depending on frequency, load and thickness, see figure “dynamic stiffness“
Mechanical loss factor	DIN 53513	0.28	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	1.6	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	0.31	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	220	%	
Tear resistance	Based on DIN ISO 34-1	1.2	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.7 0.8	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	14	kPa	Compressive stress at 25 % deformation test specimen h = 25 mm
Rebound elasticity	Based on DIN EN ISO 8307	34	%	dependent on thickness, test specimen h = 25 mm
Force reduction	DIN EN 14904	49	%	dependent on thickness, test specimen h = 25 mm

N/mm²
2.50
990plus
0.85
810plus
0.60
740plus
0.45
680plus
0.30
570plus
0.22
510plus
0.11
400plus
0.055
300plus
0.042
270plus
0.028
220plus
0.018
190plus
0.011
150plus
0

Load Ranges



Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocity of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 300 mm x 300 mm.

Vibration Isolation

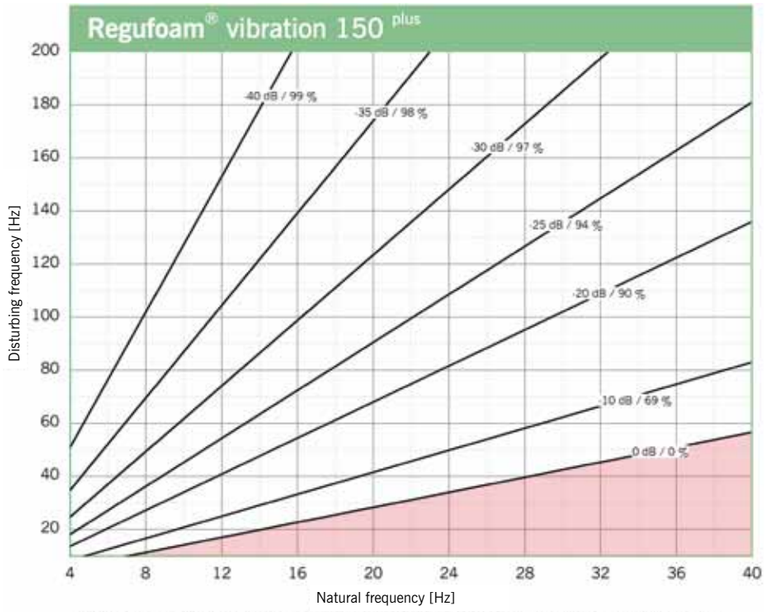
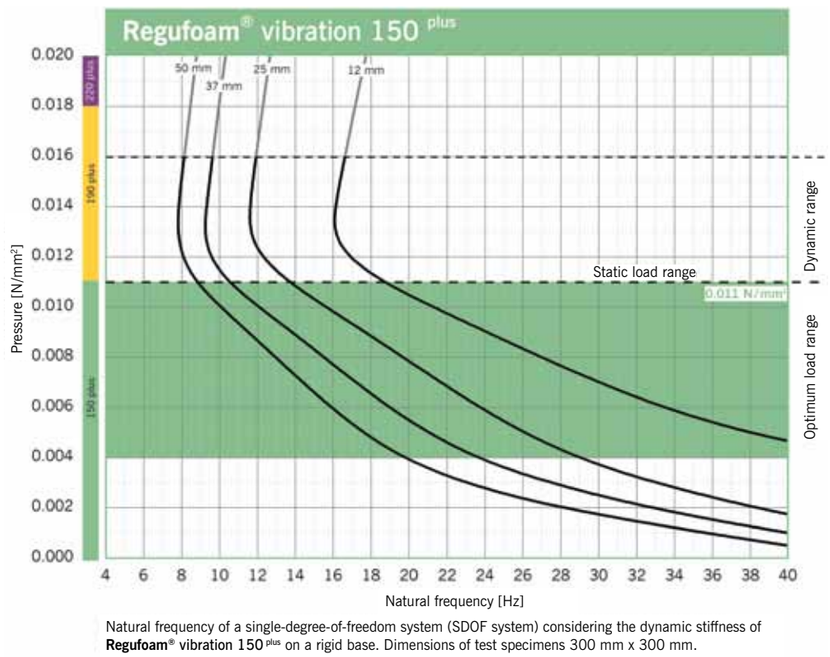


Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regufoam® vibration 150 plus**. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

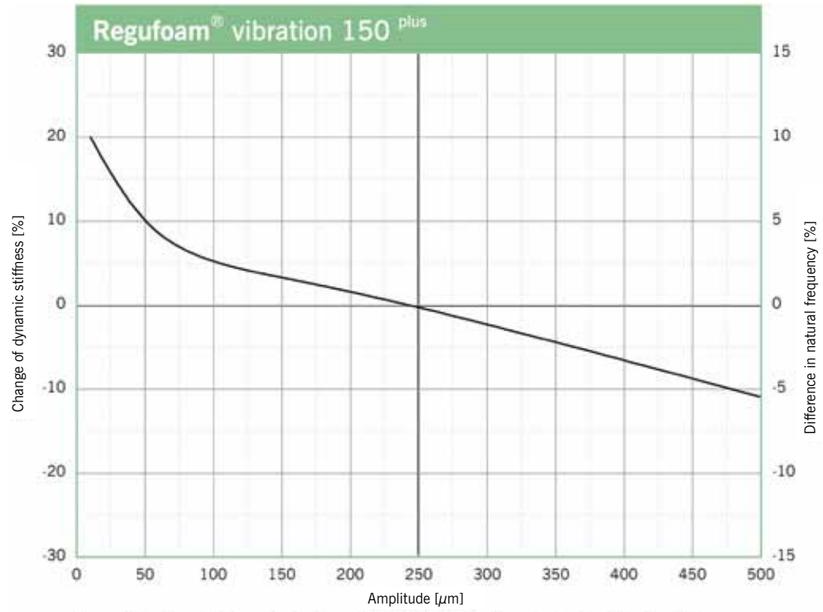
Natural Frequency



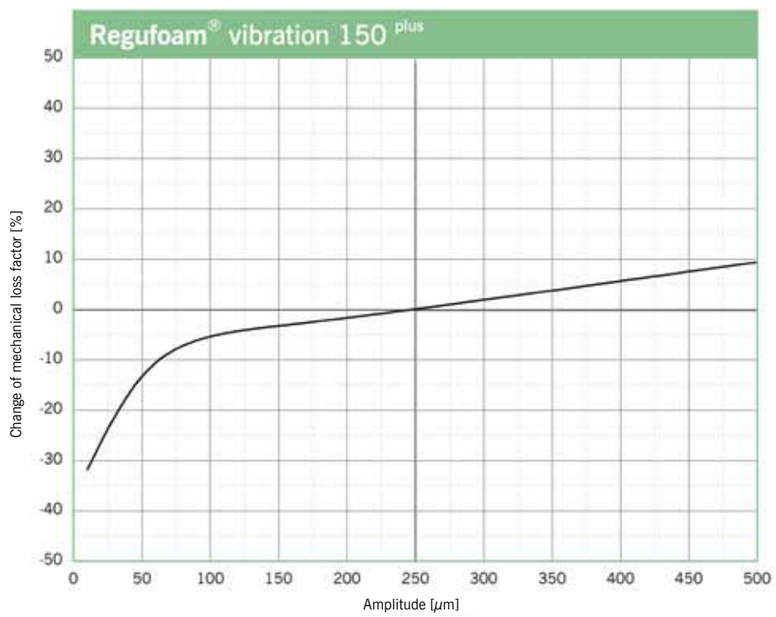
Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regufoam® vibration 150 plus** on a rigid base. Dimensions of test specimens 300 mm x 300 mm.

Regufoam® vibration 150 plus 2.1

Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation. Sinusoidal excitation at a constant mean load of 0.011 N/mm², dimensions of the specimens 300 mm x 300 mm x 25 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.011 N/mm², dimensions of the specimens 300 mm x 300 mm x 25 mm.

Modulus of Elasticity

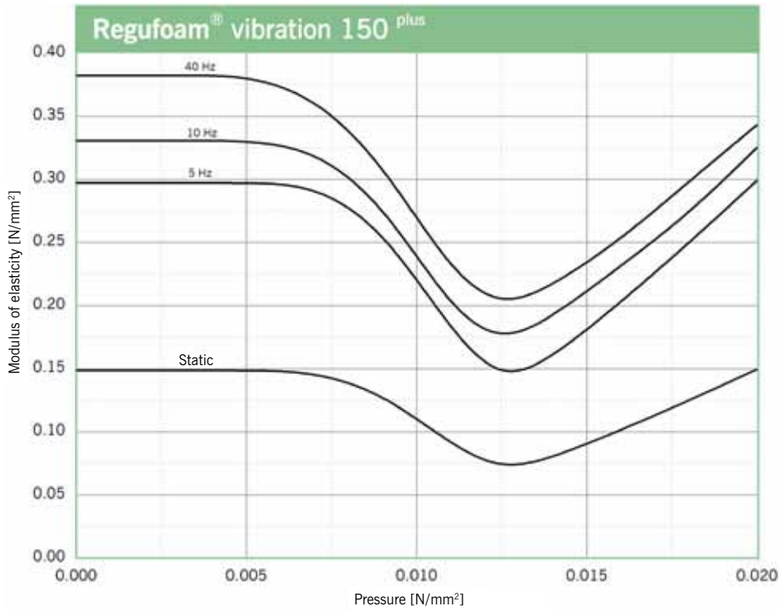


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 25 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

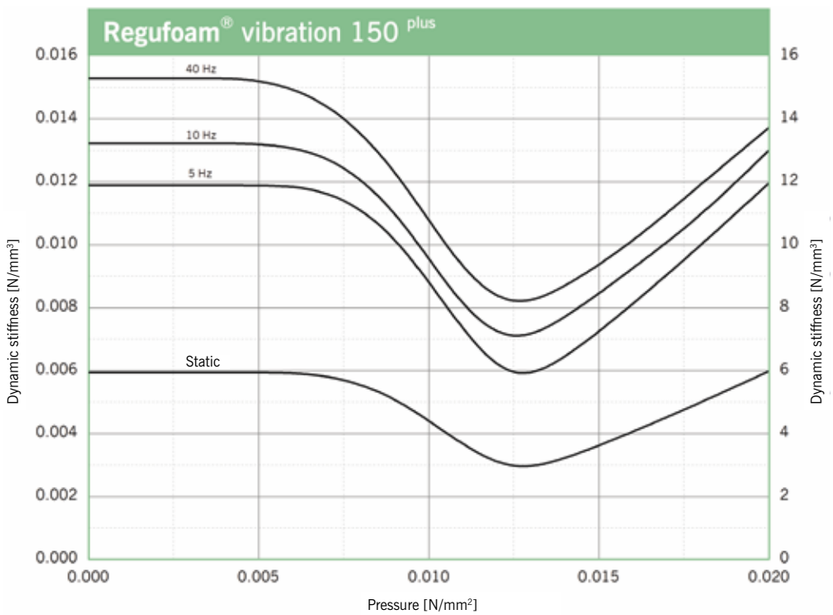
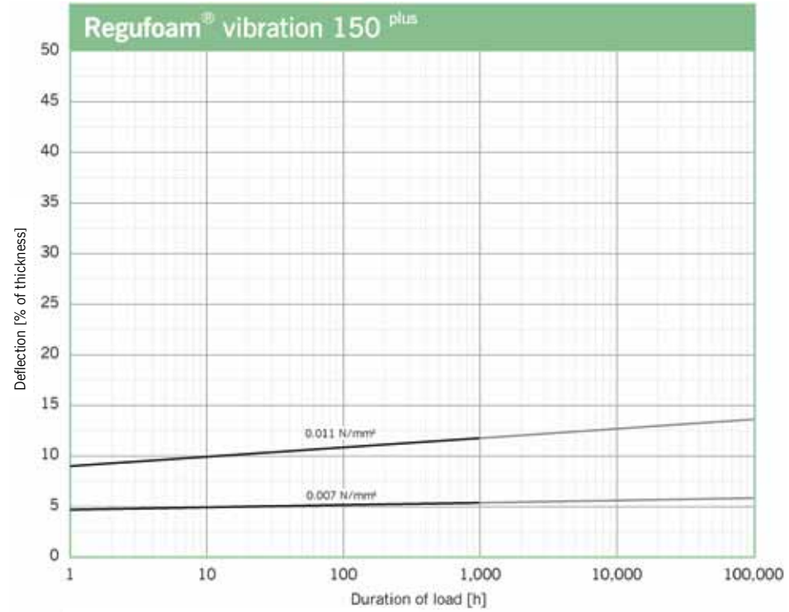


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 25 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regufoam® vibration 150 plus 2.1

Long-Term Creep Test



Dimensions of specimens 300 mm x 300 mm x 50 mm

Exclusion of Liability

Technical services and offers based on these are subject to our General Terms and Conditions of sale, a copy of which can be found on our website www.bsw-vibration-technology.com. Special attention should be paid to paragraphs 4 and 5. In so far, please be advised as follows: Our expertise is the development and manufacturing of products. With our recommendation we can only assist you in selecting a product that is suitable for your demand. However, we cannot act as your architect or consulting expert. This would only be possible subject to a separately concluded service contract that we would have to bill you for. Such contracts are not part of our scope of supply and services. Hence, our recommendation does not lay claim for its correctness. Guarantees do only apply to the technical properties of the material supplied. All given values are approximate values.

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Downloads at www.bsw-vibration-technology.com

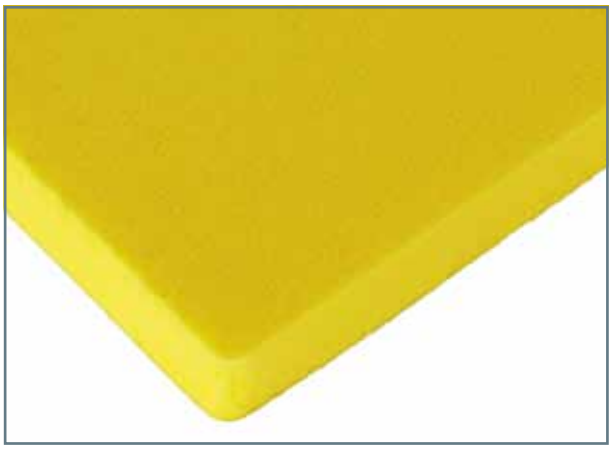
BSW

Regufoam® vibration 190 plus

Standard forms of delivery, ex warehouse
Rolls
Thickness: 12 and 25 mm, special thicknesses on request
Length: 5,000 mm, special lengths available
Width: 1,500 mm

Stripping/Plates
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

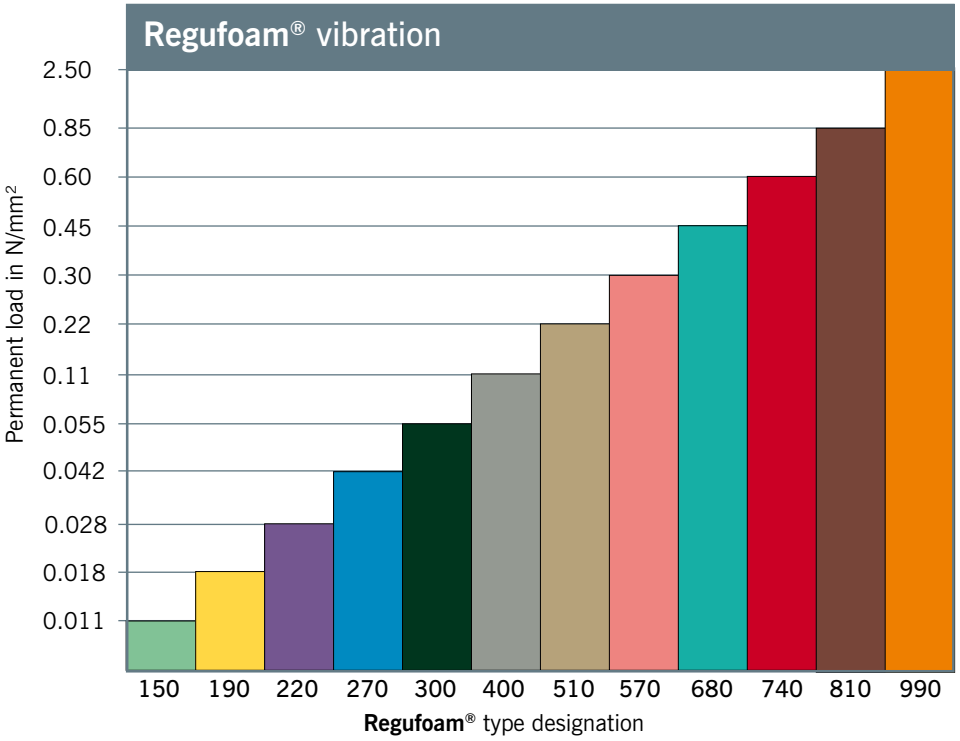
Continuous static load
0.018 N/mm²
Continuous and variable loads/operating load range
0 to 0.028 N/mm²
Peak loads (rare, short-term loads)
0.8 N/mm²



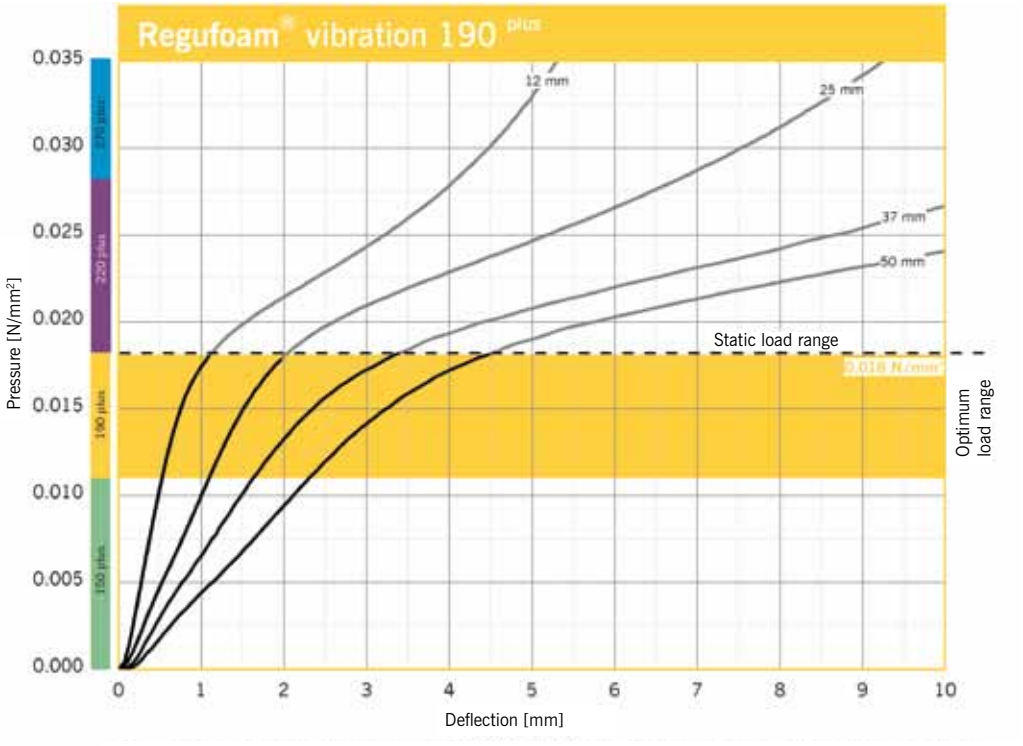
Static modulus of elasticity	Based on EN 826	0.1 - 0.25	N/mm²	Tangential modulus, see figure “Modulus of elasticity”
Dynamic modulus of elasticity	Based on DIN 53513	0.25 - 0.55	N/mm²	Depending on frequency, load and thickness, see figure “dynamic stiffness“
Mechanical loss factor	DIN 53513	0.25	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	2.0	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	0.4	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	220	%	
Tear resistance	Based on DIN ISO 34-1	2.0	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.7 0.8	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	22	kPa	Compressive stress at 25 % deformation test specimen h = 25 mm
Rebound elasticity	Based on DIN EN ISO 8307	35	%	dependent on thickness, test specimen h = 25 mm
Force reduction	DIN EN 14904	61	%	dependent on thickness, test specimen h = 25 mm

N/mm²
2.50
990plus
0.85
810plus
0.60
740plus
0.45
680plus
0.30
570plus
0.22
510plus
0.11
400plus
0.055
300plus
0.042
270plus
0.028
220plus
0.018
190plus
0.011
150plus
0

Load Ranges



Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocity of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 300 mm x 300 mm.

Vibration Isolation

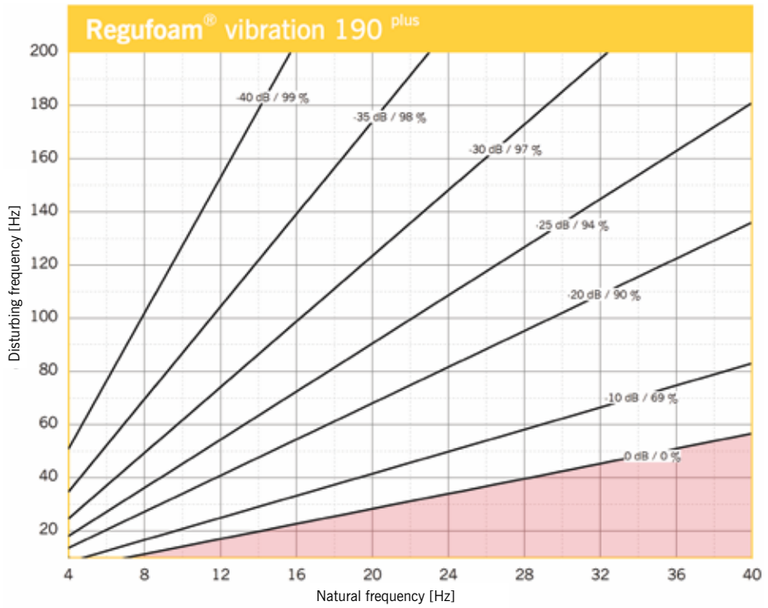
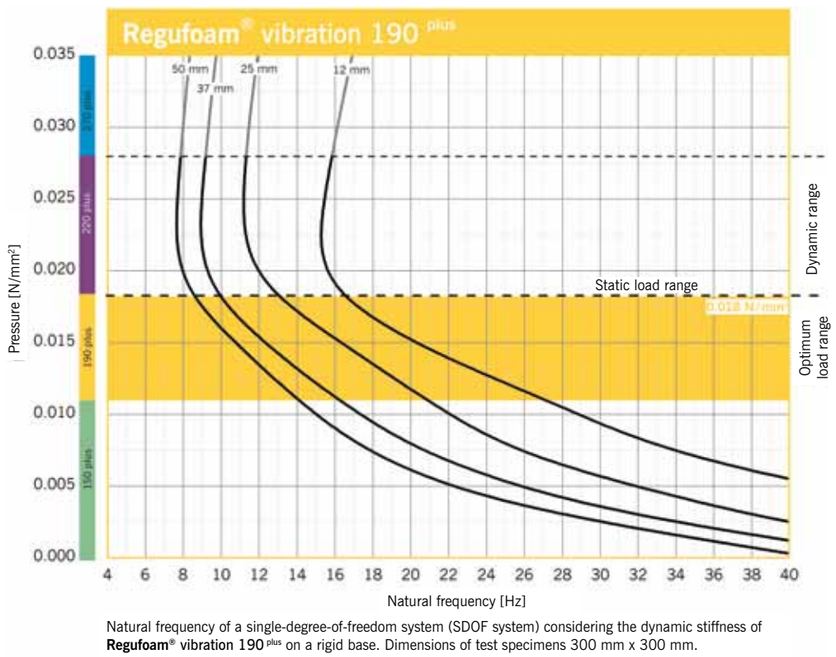


Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regufoam® vibration 190** plus. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

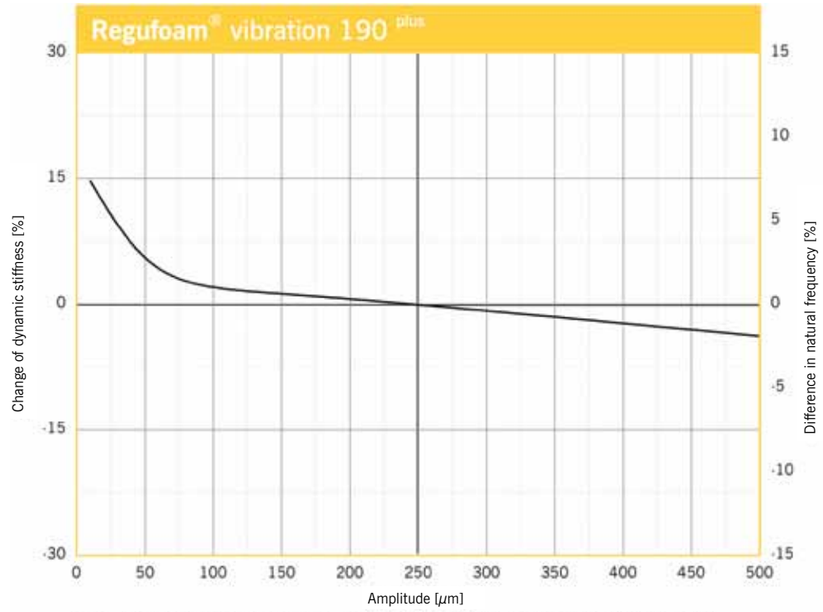
Natural Frequency



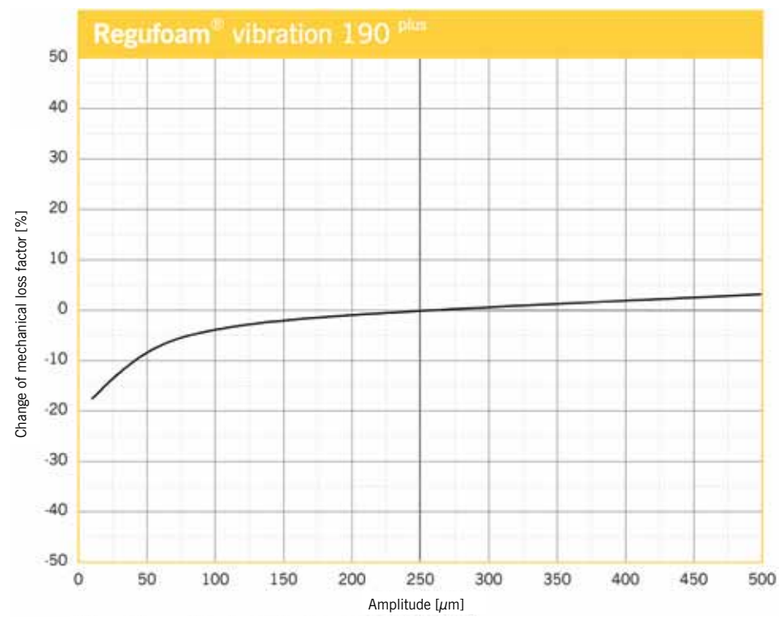
Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regufoam® vibration 190** plus on a rigid base. Dimensions of test specimens 300 mm x 300 mm.

Regufoam® vibration 190 plus 2.2

Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation. Sinusoidal excitation at a constant mean load of 0.018 N/mm², dimensions of the specimens 300 mm x 300 mm x 25 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.018 N/mm², dimensions of the specimens 300 mm x 300 mm x 25 mm.

Modulus of Elasticity

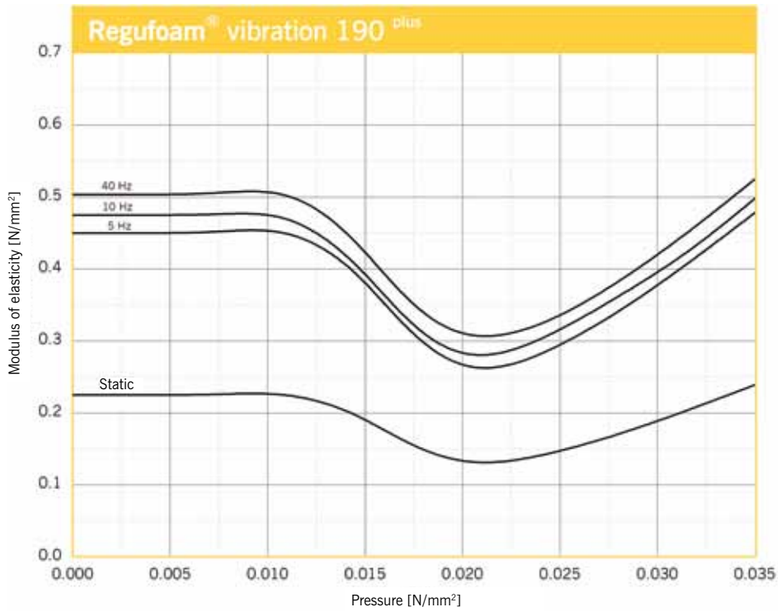


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 25 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

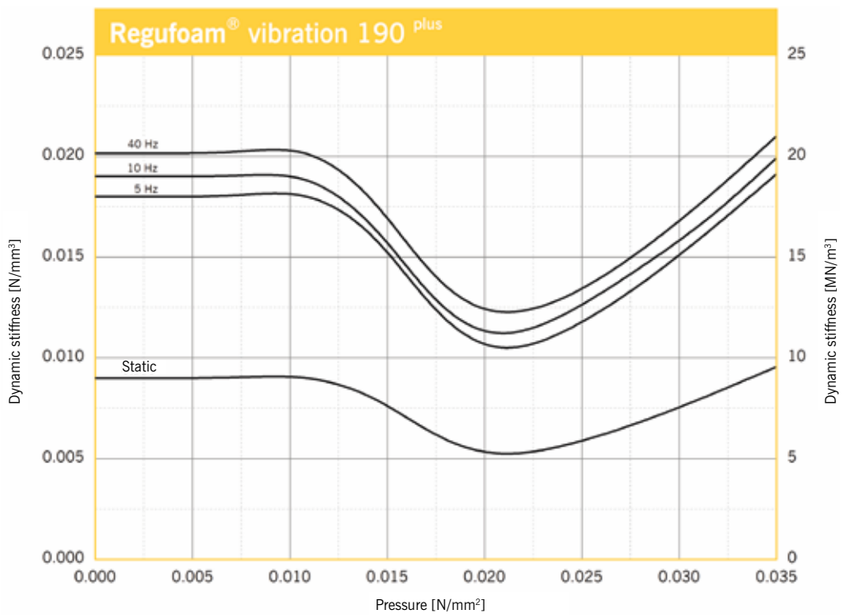
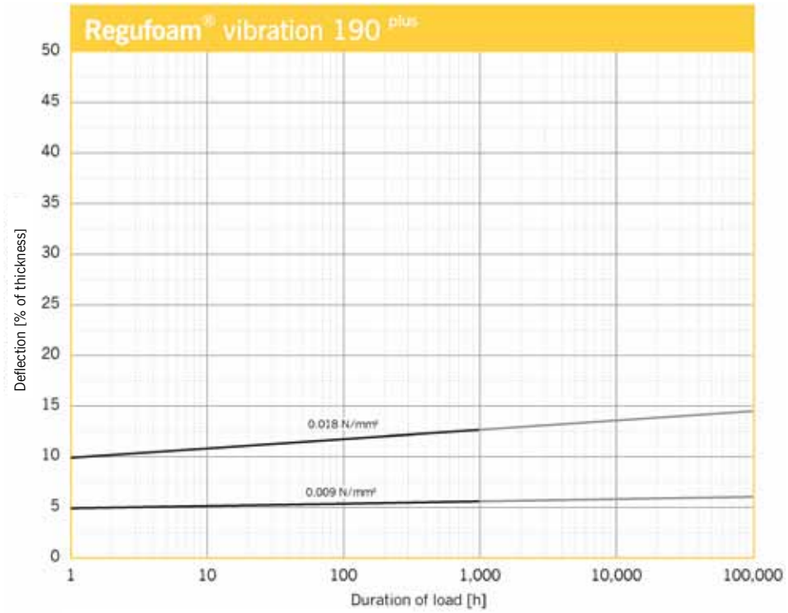


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load an and amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 25 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regufoam® vibration 190 plus 2.2

Long-Term Creep Test



Dimensions of specimens 300 mm x 300 mm x 50 mm

Exclusion of Liability

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Florian Sassmannshausen, Phone: +49 2751 803-230 • f.sassmannshausen@berleburger.de •
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BSW

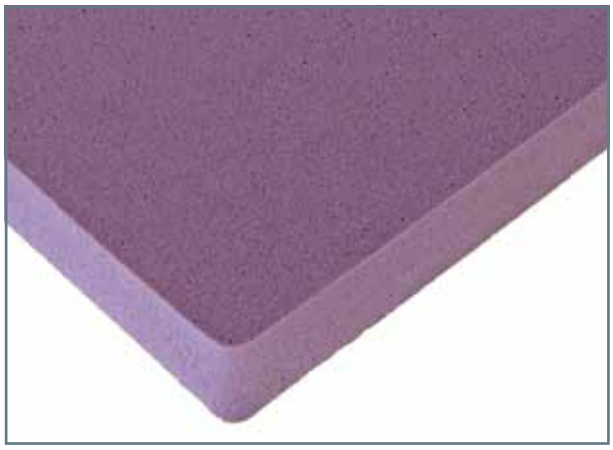
Regufoam® vibration 220 plus

2.3

Standard forms of delivery, ex warehouse
Rolls
Thickness: 12 and 25 mm, special thicknesses on request
Length: 5,000 mm, special lengths available
Width: 1,500 mm

Stripping/Plates
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

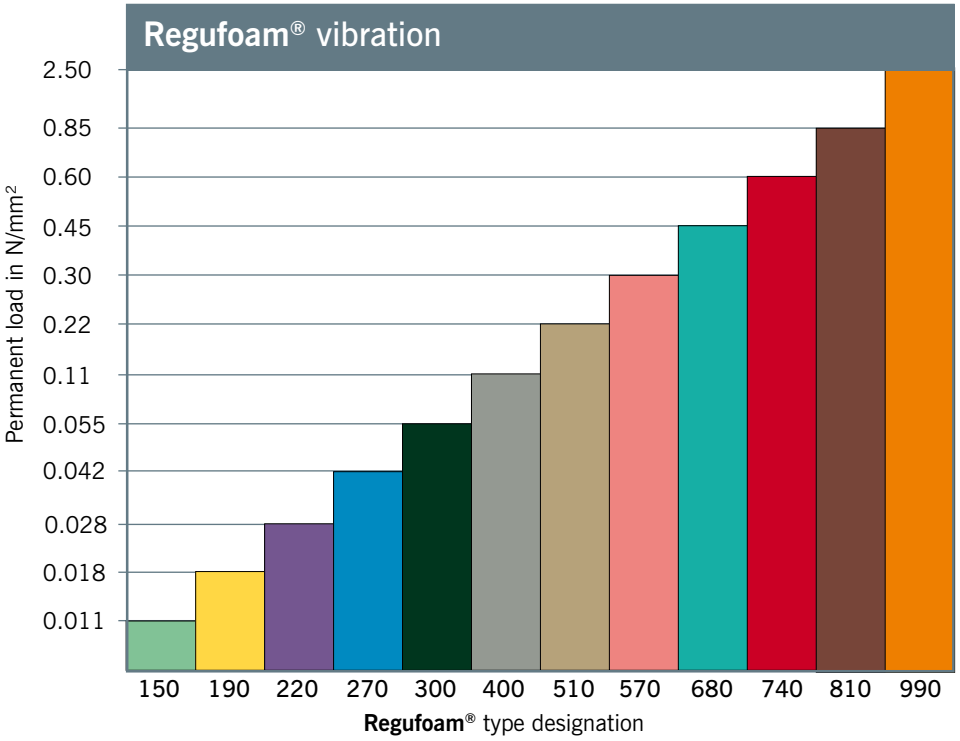
Continuous static load
0.028 N/mm²
Continuous and variable loads/operating load range
0 to 0.04 N/mm²
Peak loads (rare, short-term loads)
0.9 N/mm²



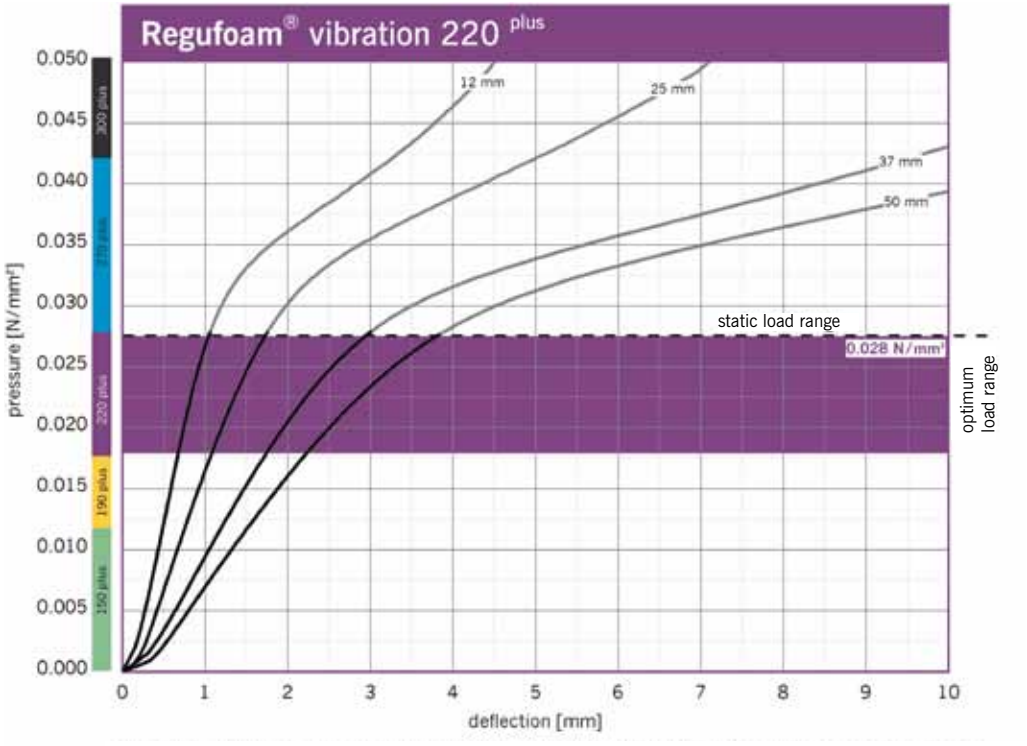
Static modulus of elasticity	Based on EN 826	0.15 - 0.35	N/mm²	Tangential modulus, see figure “Modulus of elasticity”
Dynamic modulus of elasticity	Based on DIN 53513	0.35 - 0.75	N/mm²	Depending on frequency, load and thickness, see figure “dynamic stiffness“
Mechanical loss factor	DIN 53513	0.22	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	2.3	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	0.5	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	180	%	
Tear resistance	Based on DIN ISO 34-1	2.1	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.7 0.8	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	39	kPa	Compressive stress at 25 % deformation test specimen h = 25 mm
Rebound elasticity	Based on DIN EN ISO 8307	47	%	dependent on thickness, test specimen h = 25 mm
Force reduction	DIN EN 14904	69	%	dependent on thickness, test specimen h = 25 mm

N/mm²
2.50
990plus
0.85
810plus
0.60
740plus
0.45
680plus
0.30
570plus
0.22
510plus
0.11
400plus
0.055
300plus
0.042
270plus
0.028
220plus
0.018
190plus
0.011
150plus
0

Load Ranges



Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocity of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 300 mm x 300 mm.

Vibration Isolation

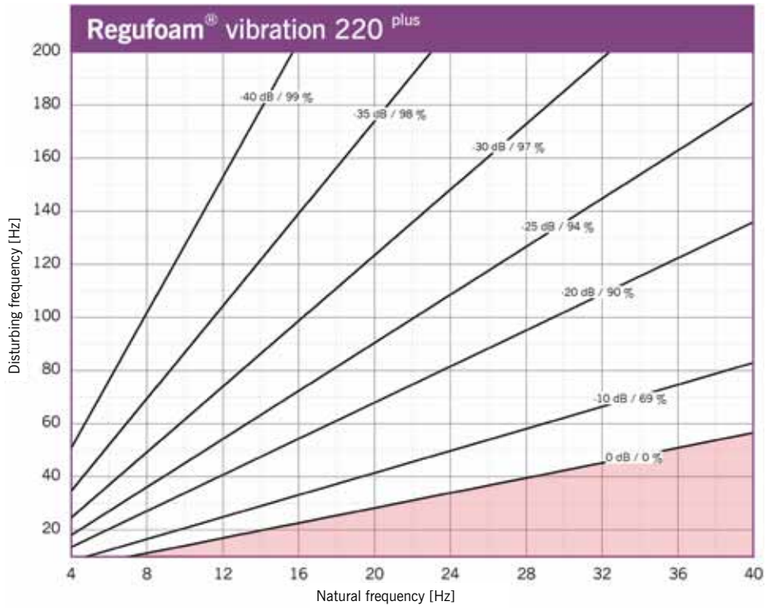
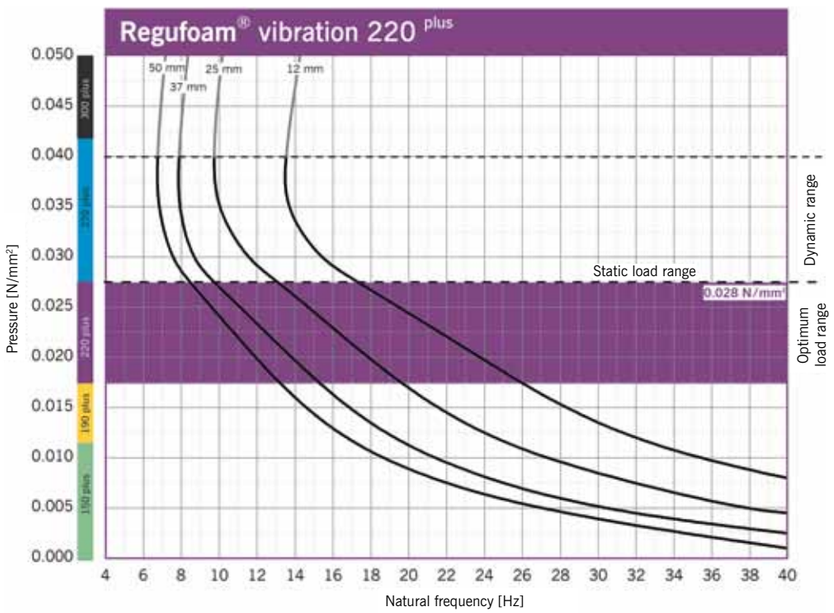


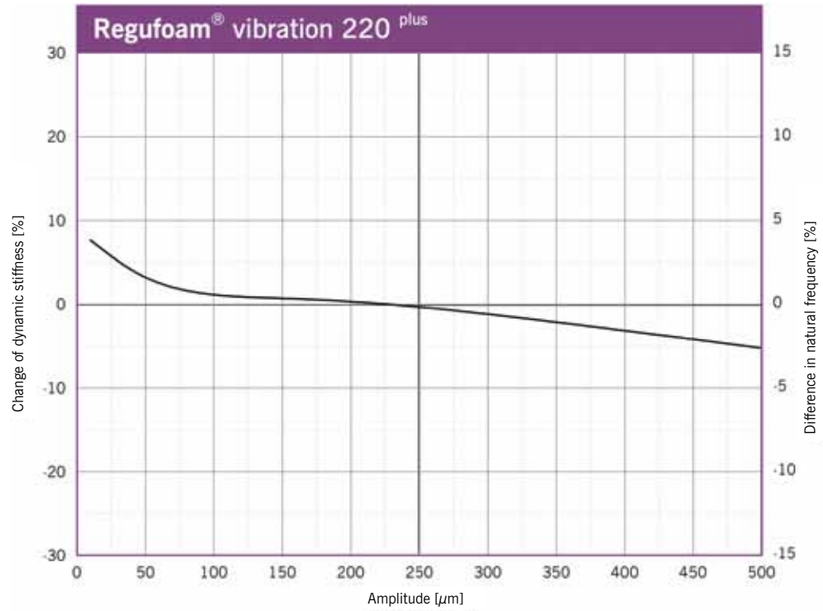
Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regufoam® vibration 220 plus**. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

Natural Frequency

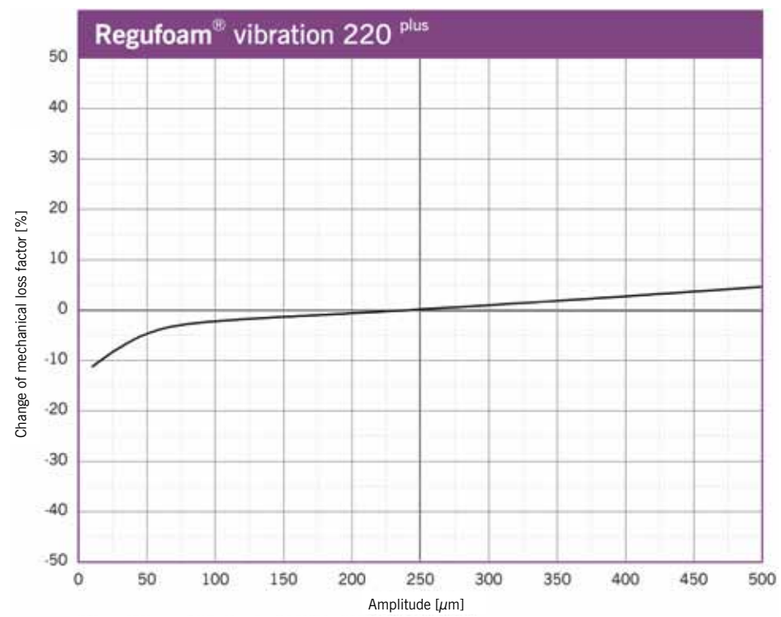


Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regufoam® vibration 220 plus** on a rigid base. Dimensions of test specimens 300 mm x 300 mm.

Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation. Sinusoidal excitation at a constant mean load of 0.028 N/mm², dimensions of the specimens 300 mm x 300 mm x 25 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.028 N/mm², dimensions of the specimens 300 mm x 300 mm x 25 mm.

Modulus of Elasticity

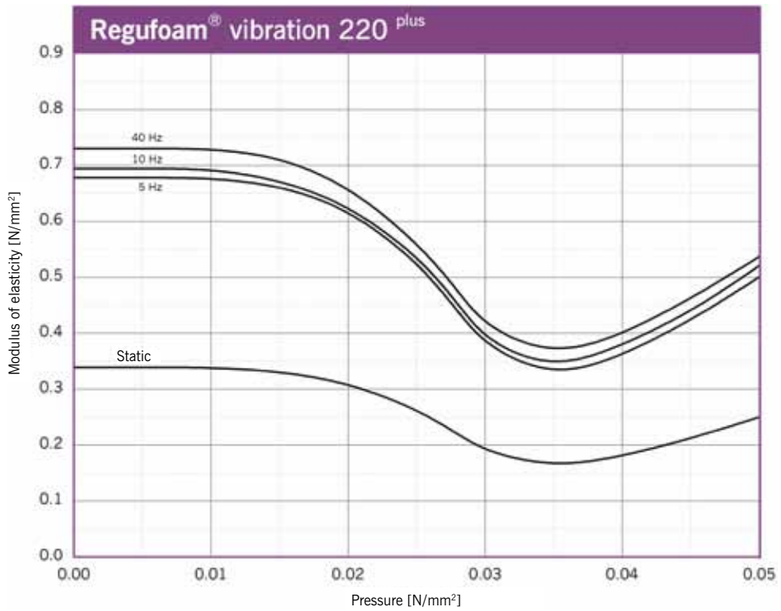


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 25 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

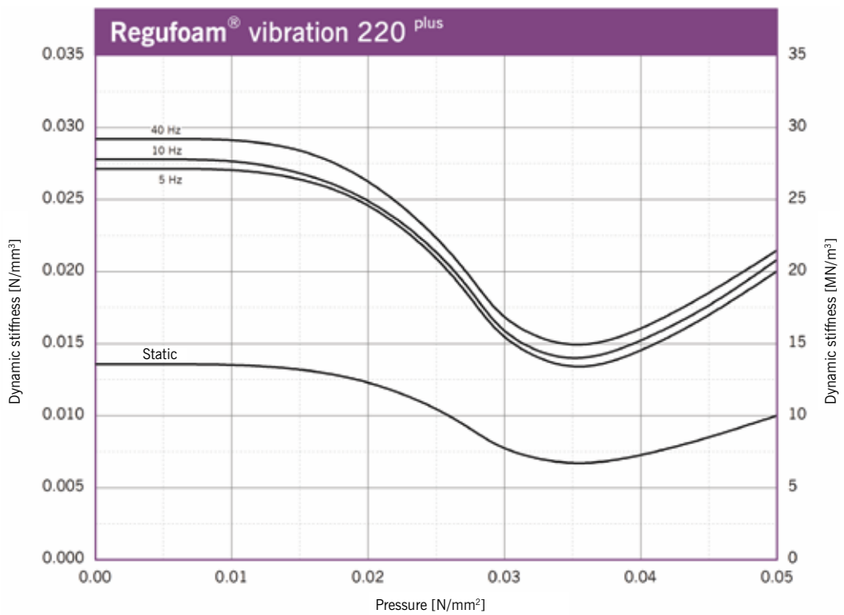
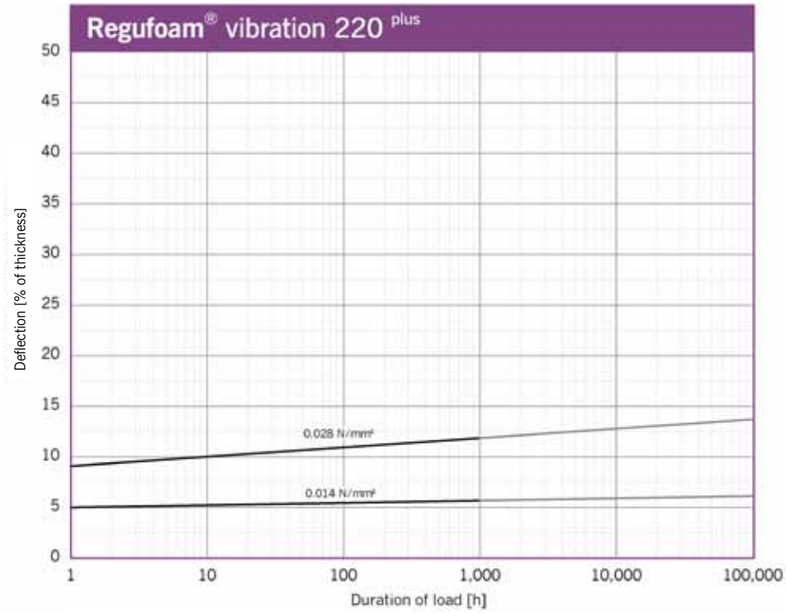


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load an and amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 25 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regufoam® vibration 220 plus 2.3

Long-Term Creep Test



Dimensions of specimens 300 mm x 300 mm x 50 mm

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BSW

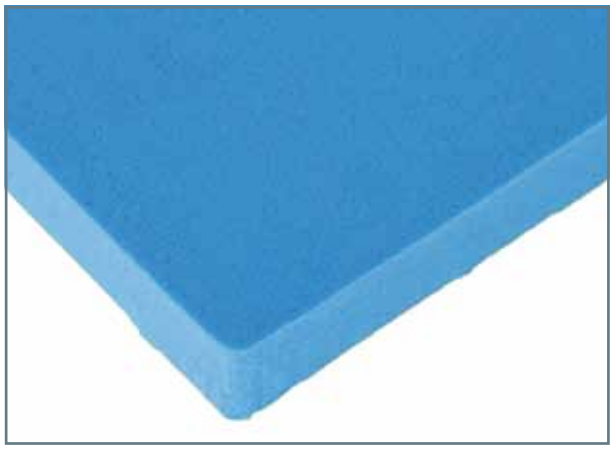
Regufoam® vibration 270 plus

2.4

Standard forms of delivery, ex warehouse
Rolls
Thickness: 12 and 25 mm, special thicknesses on request
Length: 5,000 mm, special lengths available
Width: 1,500 mm

Stripping/Plates
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

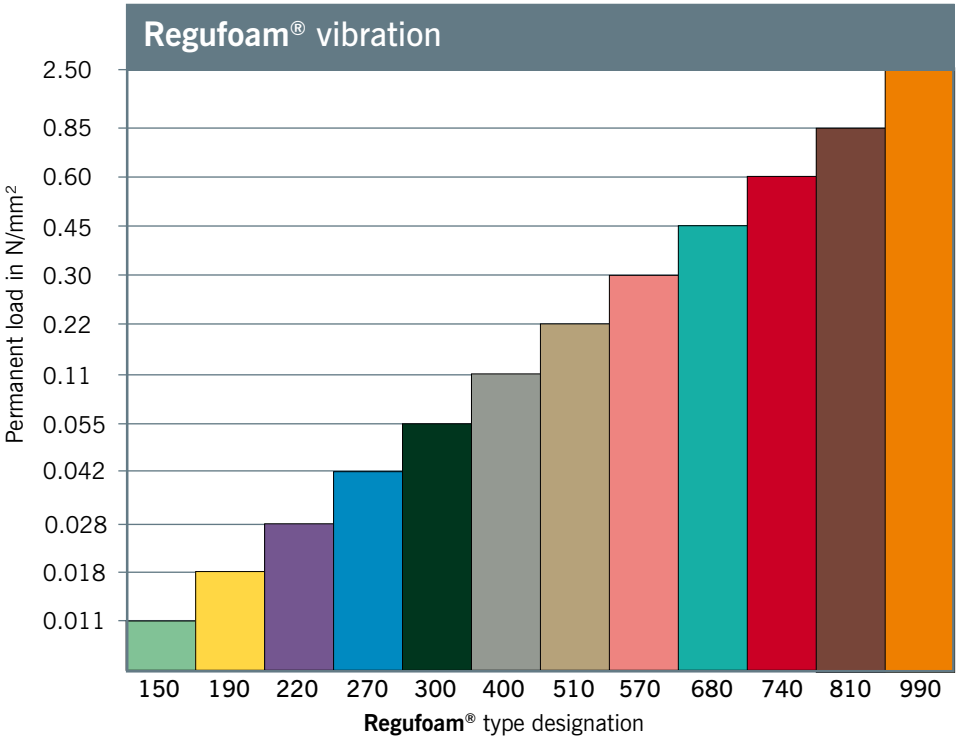
Continuous static load
0.042 N/mm²
Continuous and variable loads/operating load range
0 to 0.062 N/mm²
Peak loads (rare, short-term loads)
1.2 N/mm²



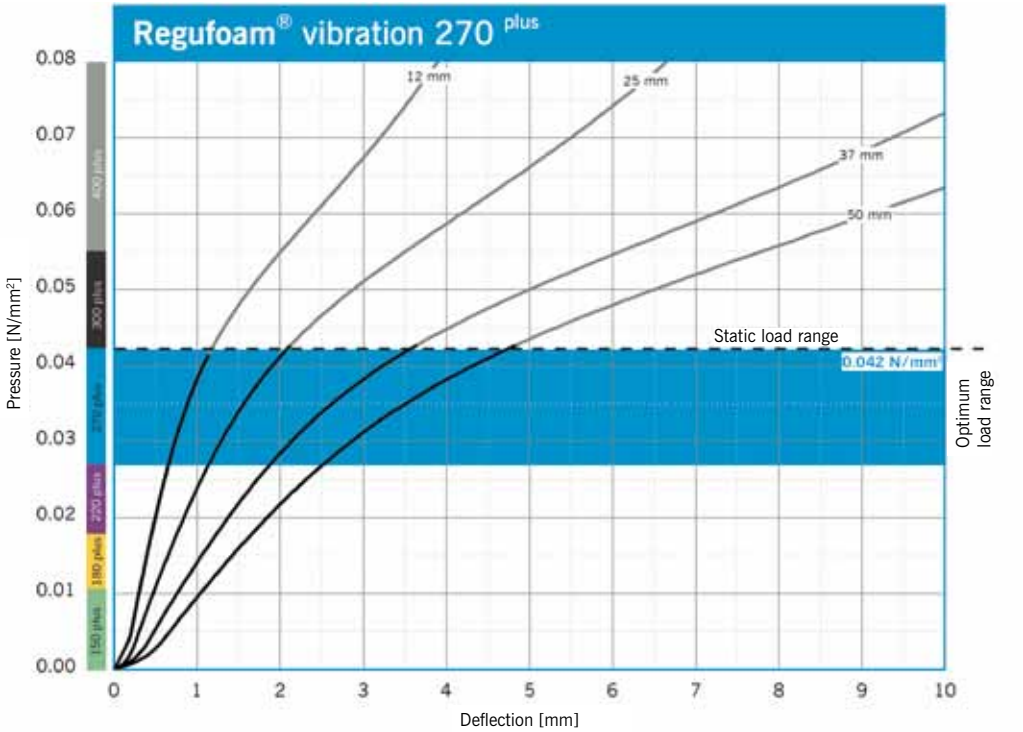
Static modulus of elasticity	Based on EN 826	0.25 - 0.45	N/mm²	Tangential modulus, see figure “Modulus of elasticity”
Dynamic modulus of elasticity	Based on DIN 53513	0.60 - 1.05	N/mm²	Depending on frequency, load and thickness, see figure “dynamic stiffness“
Mechanical loss factor	DIN 53513	0.2	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	3.2	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	0.9	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	210	%	
Tear resistance	Based on DIN ISO 34-1	4.5	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.7 0.8	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	63	kPa	Compressive stress at 25 % deformation test specimen h = 25 mm
Rebound elasticity	Based on DIN EN ISO 8307	38	%	dependent on thickness, test specimen h = 25 mm
Force reduction	DIN EN 14904	70	%	dependent on thickness, test specimen h = 25 mm

N/mm²
2.50 — 990plus
0.85 — 810plus
0.60 — 740plus
0.45 — 680plus
0.30 — 570plus
0.22 — 510plus
0.11 — 400plus
0.055 — 300plus
0.042 — 270plus
0.028 — 220plus
0.018 — 190plus
0.011 — 150plus
0

Load Ranges



Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocity of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 300 mm x 300 mm.

Vibration Isolation

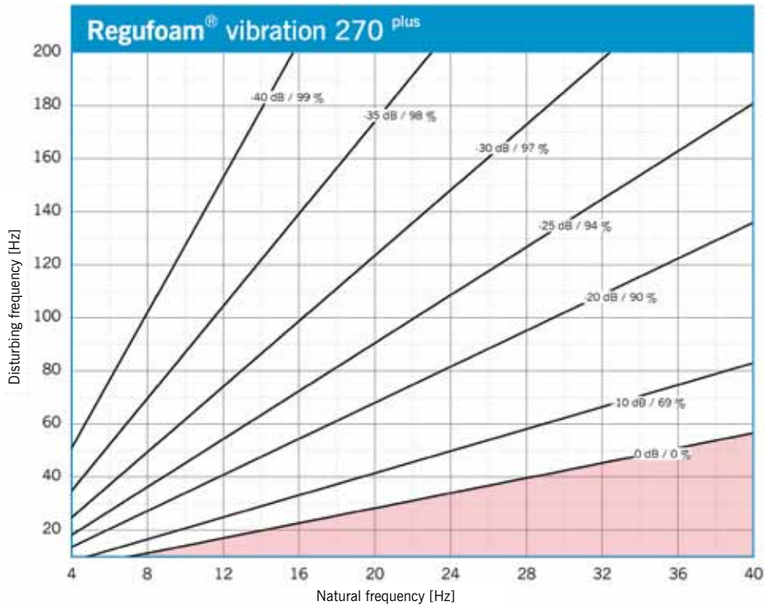
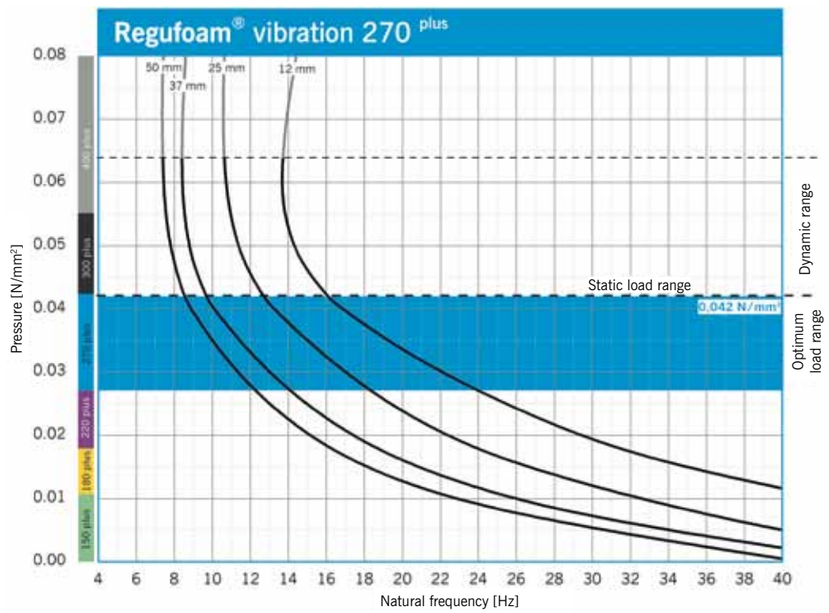


Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regufoam® vibration 270 plus**. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

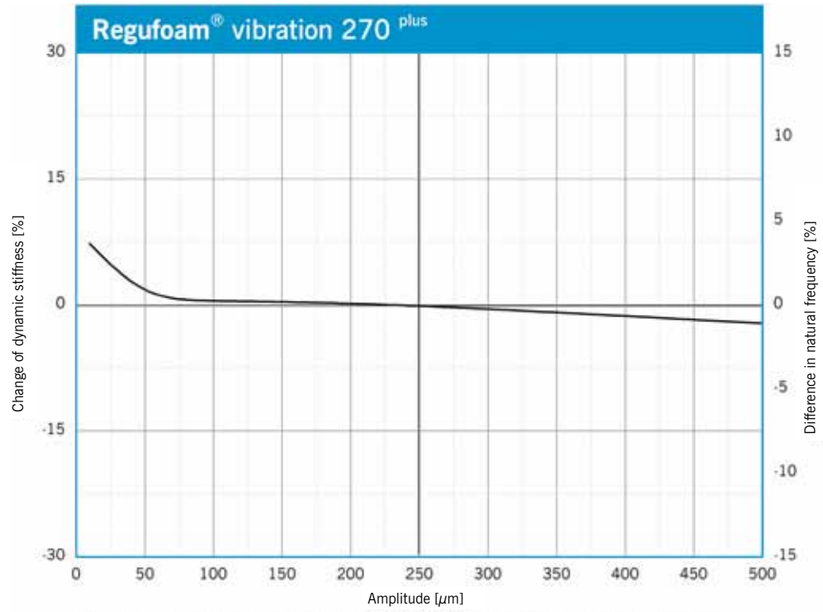
Natural Frequency



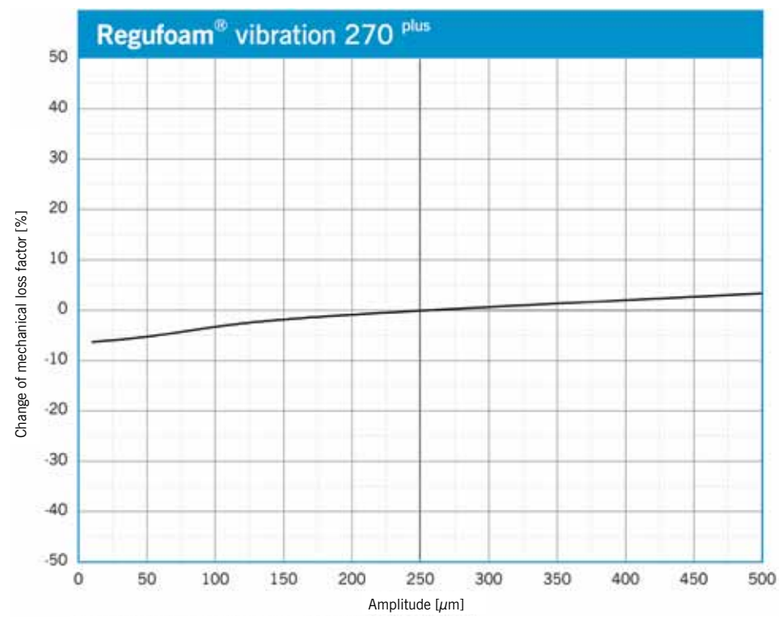
Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regufoam® vibration 270 plus** on a rigid base. Dimensions of test specimens 300 mm x 300 mm.

Regufoam® vibration 270 plus 2.4

Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation. Sinusoidal excitation at a constant mean load of 0.042 N/mm², dimensions of the specimens 300 mm x 300 mm x 25 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.042 N/mm², dimensions of the specimens 300 mm x 300 mm x 25 mm.

Modulus of Elasticity

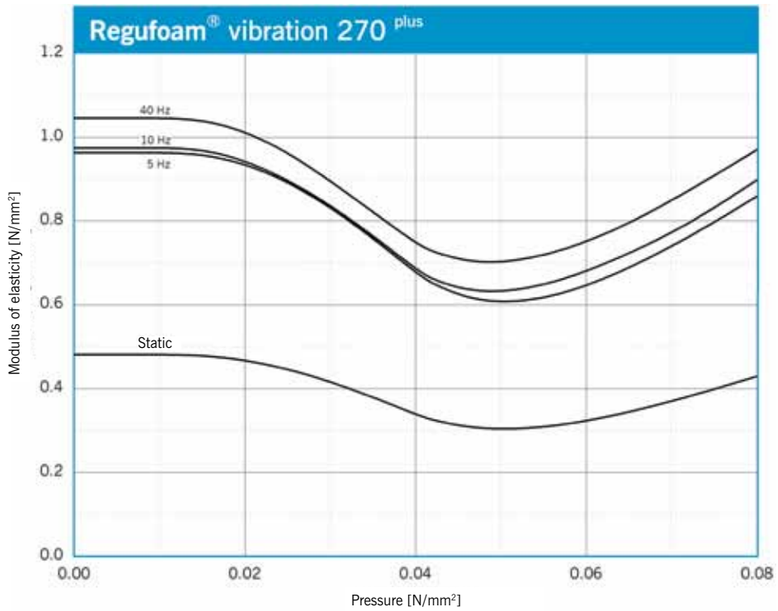


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 25 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

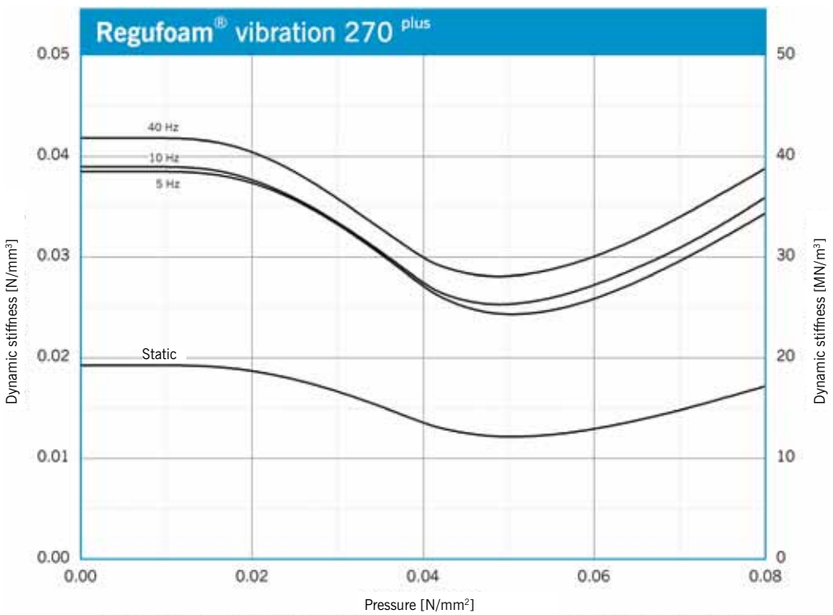
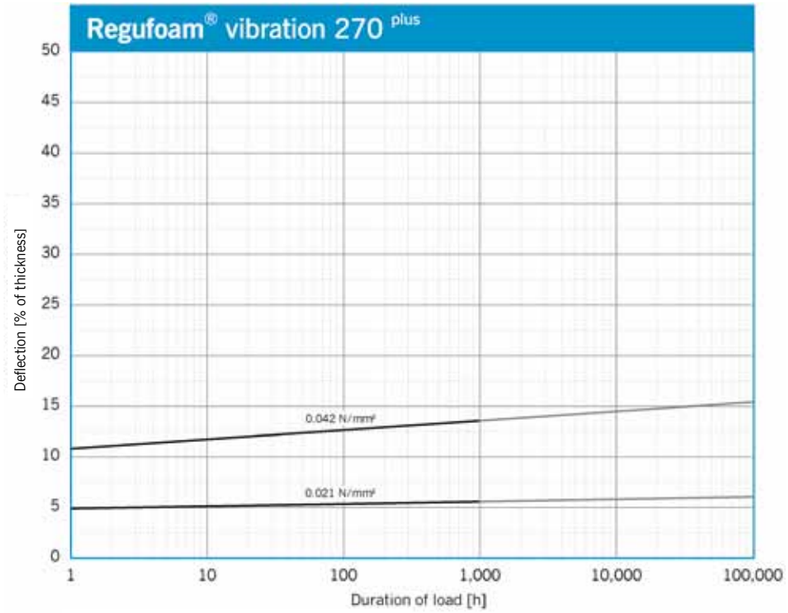


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load an and amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 25 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regufoam® vibration 270 plus 2.4

Long-Term Creep Test



Dimensions of specimens 300 mm x 300 mm x 50 mm

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BSW

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Rolls
Thickness: 12 and 25 mm, special thicknesses on request
Length: 5,000 mm, special lengths available
Width: 1,500 mm

Stripping/Plates
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

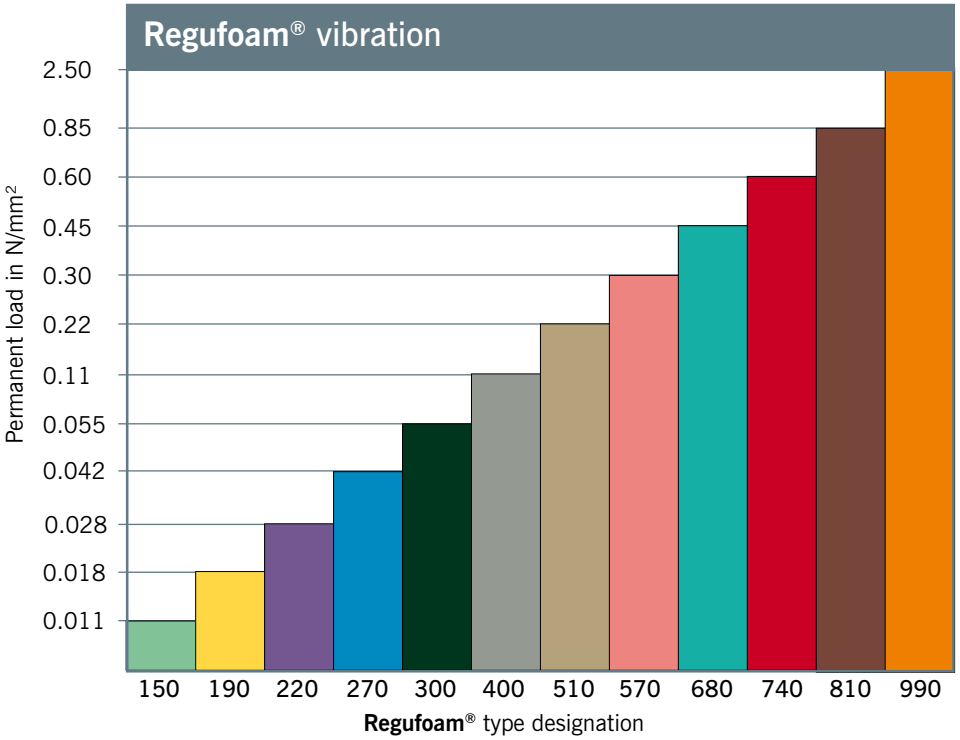
Continuous static load
0.055 N/mm²
Continuous and variable loads/operating load range
0 to 0.08 N/mm²
Peak loads (rare, short-term loads)
2 N/mm²

Static modulus of elasticity	Based on EN 826	0.35 - 0.58	N/mm²	Tangential modulus, see figure “Modulus of elasticity”
Dynamic modulus of elasticity	Based on DIN 53513	0.68 - 1.25	N/mm²	Depending on frequency, load and thickness, see figure “dynamic stiffness“
Mechanical loss factor	DIN 53513	0.18	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	3.4	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	1.2	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	240	%	
Tear resistance	Based on DIN ISO 34-1	4.8	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.6 0.75	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	82	kPa	Compressive stress at 25 % deformation test specimen h = 25 mm
Rebound elasticity	Based on DIN EN ISO 8307	44	%	dependent on thickness, test specimen h = 25 mm
Force reduction	DIN EN 14904	72	%	dependent on thickness, test specimen h = 25 mm

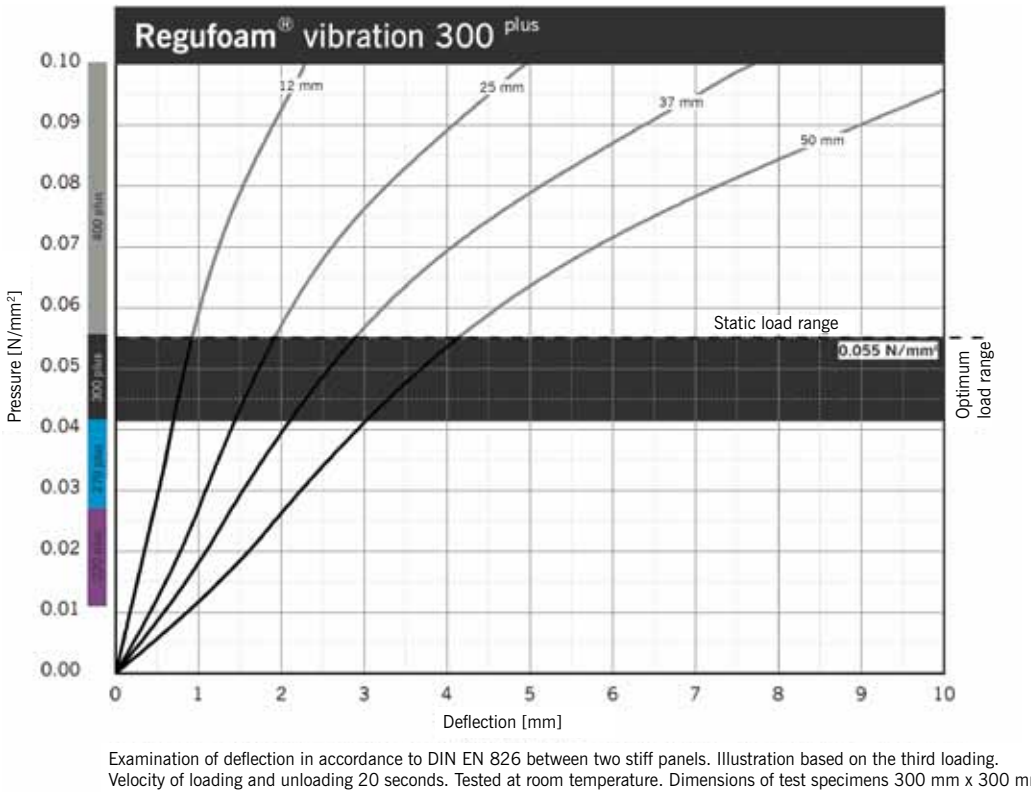
N/mm²
2.50
0.85
0.60
0.45
0.30
0.22
0.11
0.055
0.042
0.028
0.018
0.011
0
990plus
810plus
740plus
680plus
570plus
510plus
400plus
300plus
270plus
220plus
190plus
150plus

N/mm²
2.50 — 990plus
0.85 — 810plus
0.60 — 740plus
0.45 — 680plus
0.30 — 570plus
0.22 — 510plus
0.11 — 400plus
0.055 — 300plus
0.042 — 270plus
0.028 — 220plus
0.018 — 190plus
0.011 — 150plus
0

Load Ranges



Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocity of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 300 mm x 300 mm.

Vibration Isolation

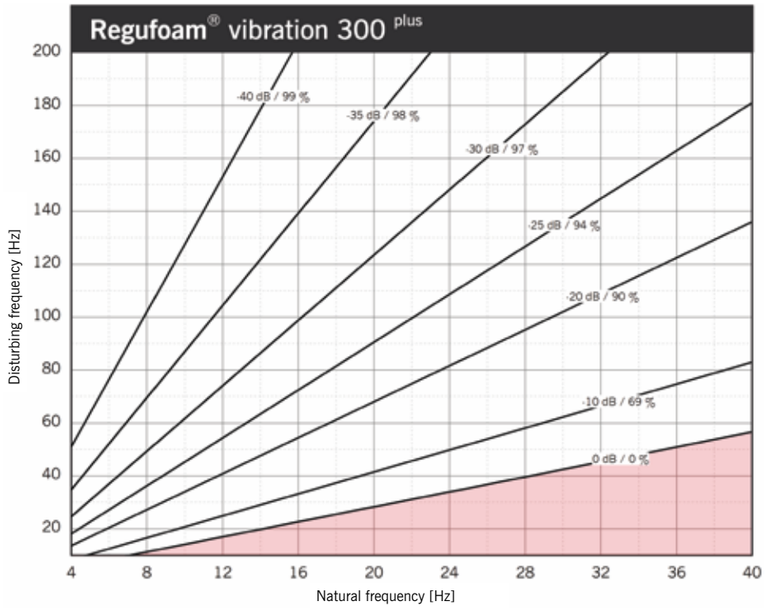
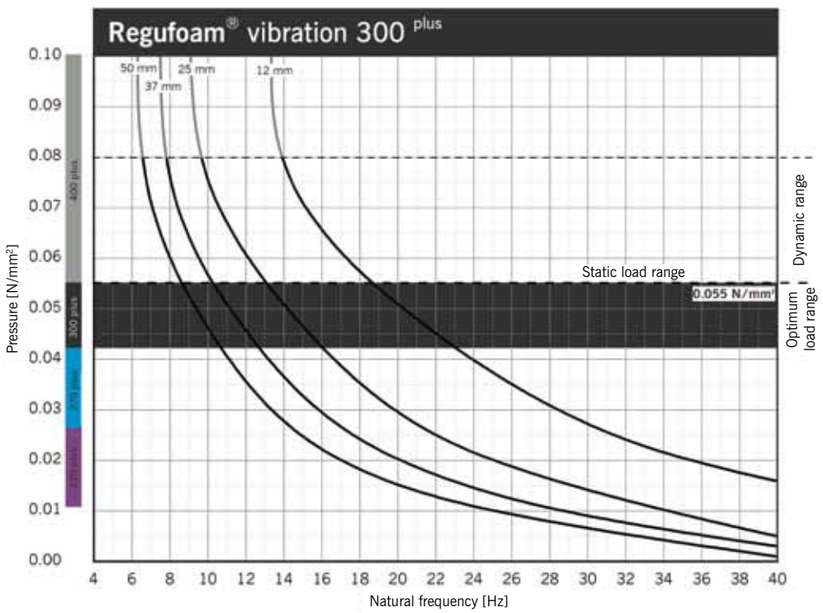


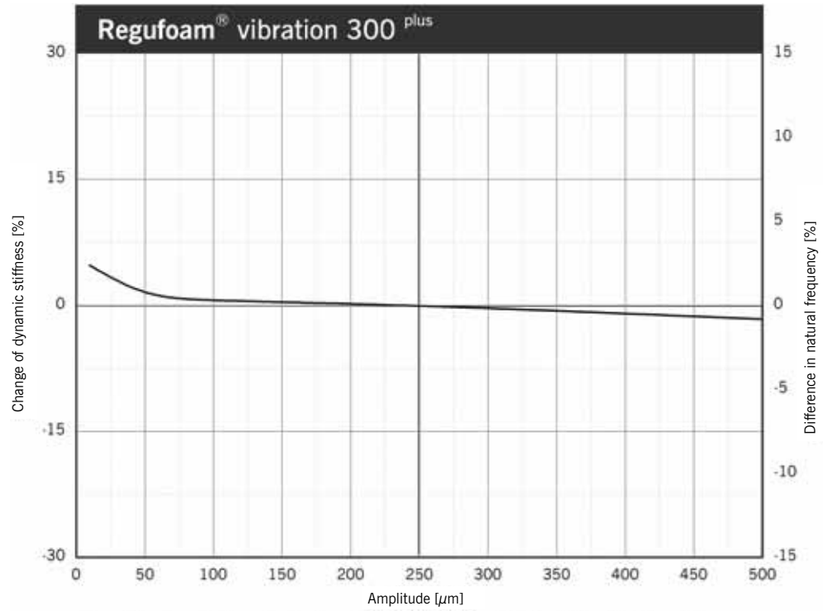
Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regufoam® vibration 300 plus**. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

Natural Frequency

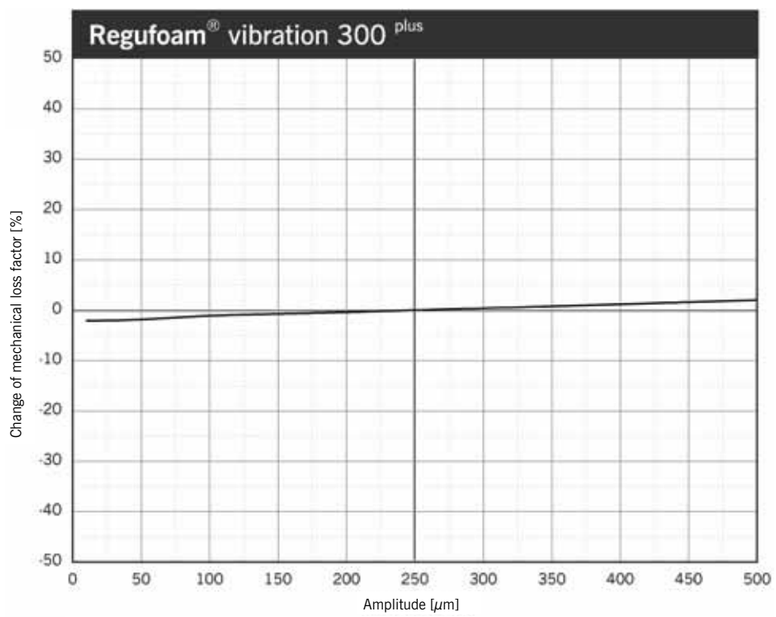


Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regufoam® vibration 300 plus** on a rigid base. Dimensions of test specimens 300 mm x 300 mm.

Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation. Sinusoidal excitation at a constant mean load of 0.055 N/mm², dimensions of the specimens 300 mm x 300 mm x 25 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.055 N/mm², dimensions of the specimens 300 mm x 300 mm x 25 mm.

Modulus of Elasticity

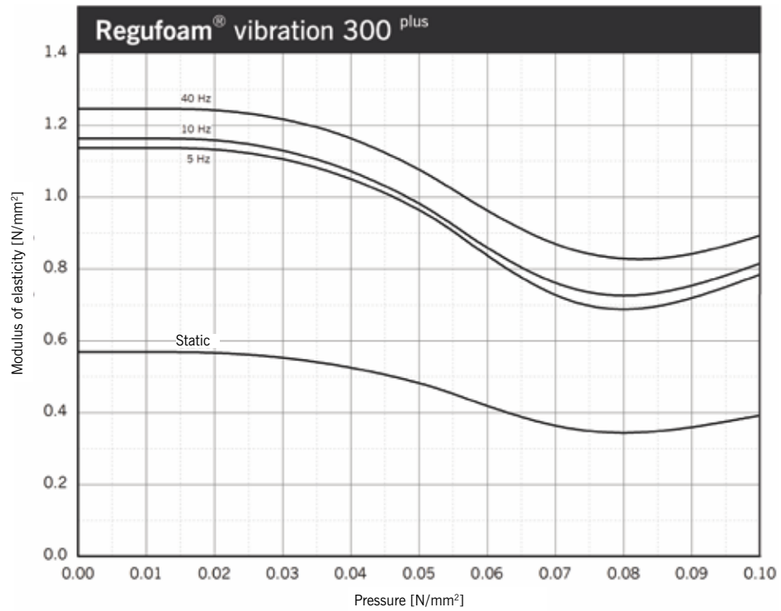


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 25 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

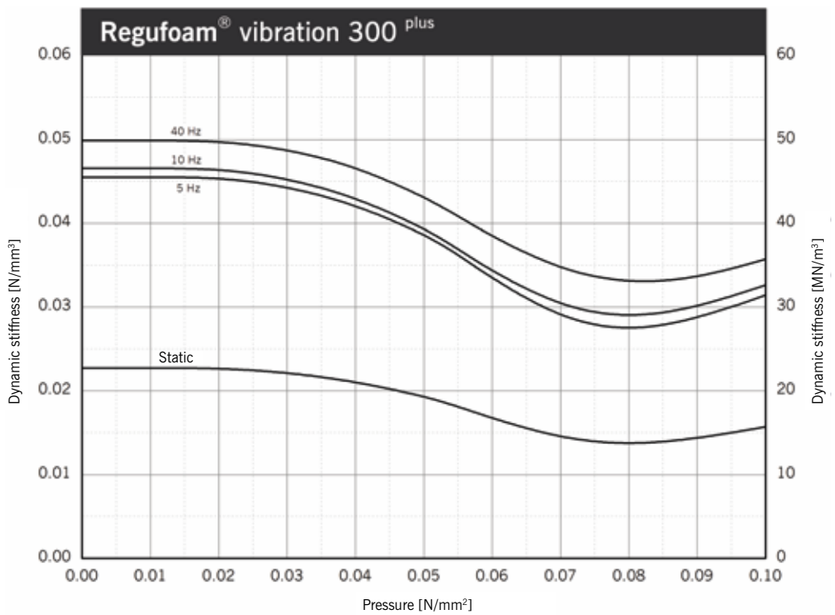
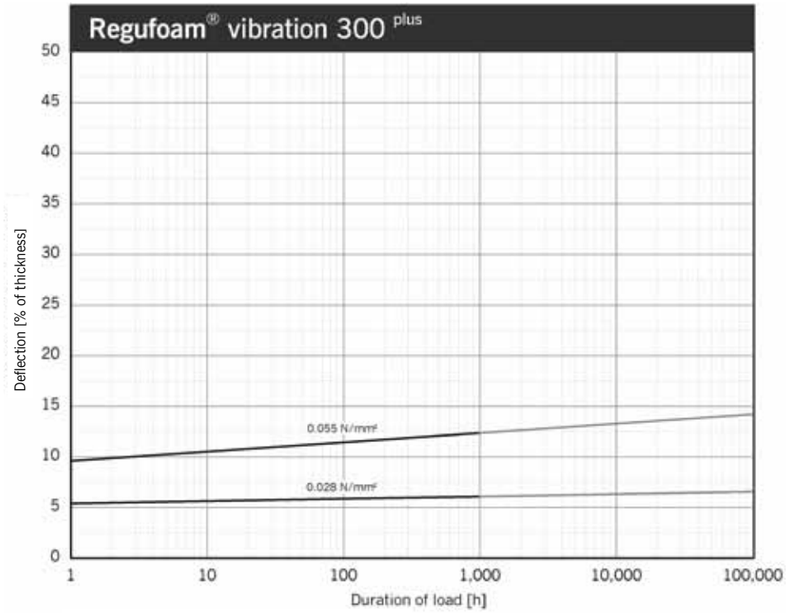


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load an and amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 25 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regufoam® vibration 300 plus 2.5

Long-Term Creep Test



Dimensions of specimens 300 mm x 300 mm x 50 mm

Exclusion of Liability

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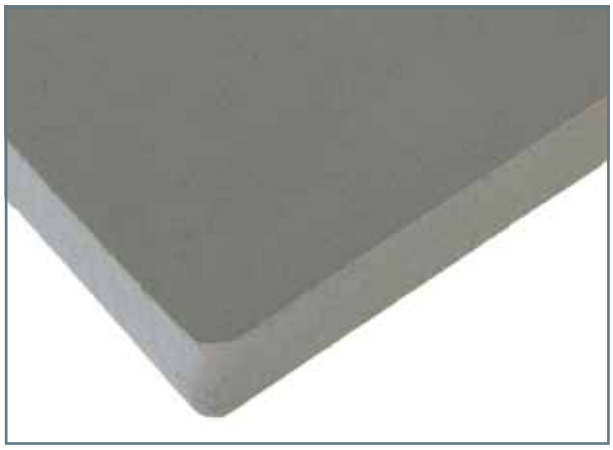
Downloads at www.bsw-vibration-technology.com

BSW

Standard forms of delivery, ex warehouse
Plates
Thickness: 12 and 25 mm, special thicknesses on request
Length: 1,500 mm, special lengths available
Width: 1,000 mm

Stripping/smaller sizes
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

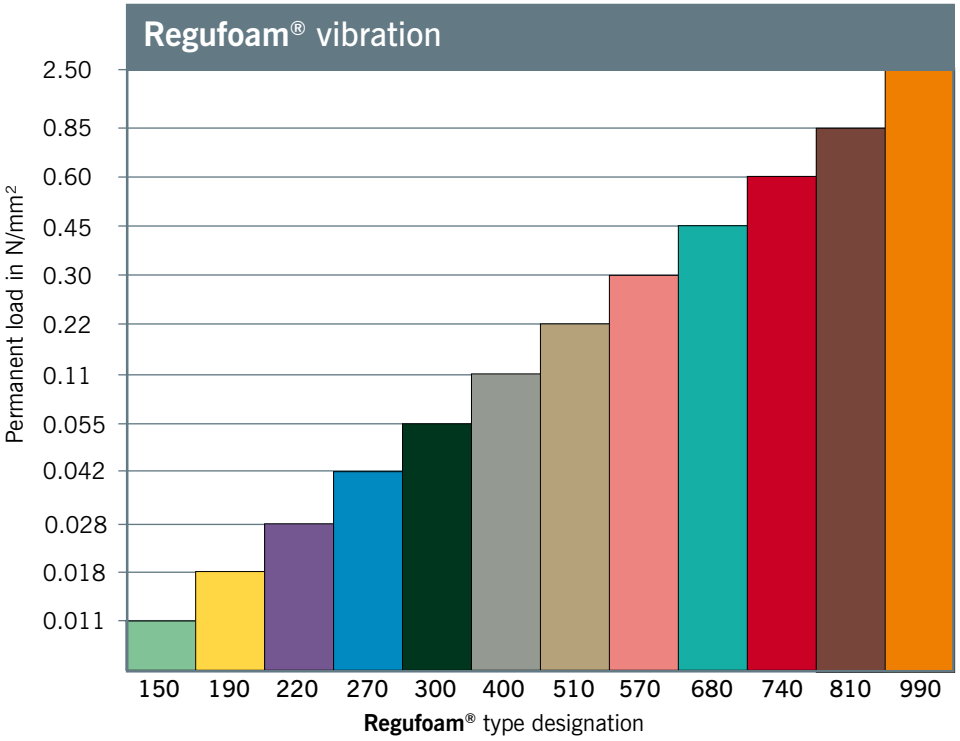
Continuous static load
0.11 N/mm²
Continuous and variable loads/operating load range
0 to 0.16 N/mm²
Peak loads (rare, short-term loads)
up to 3 N/mm²



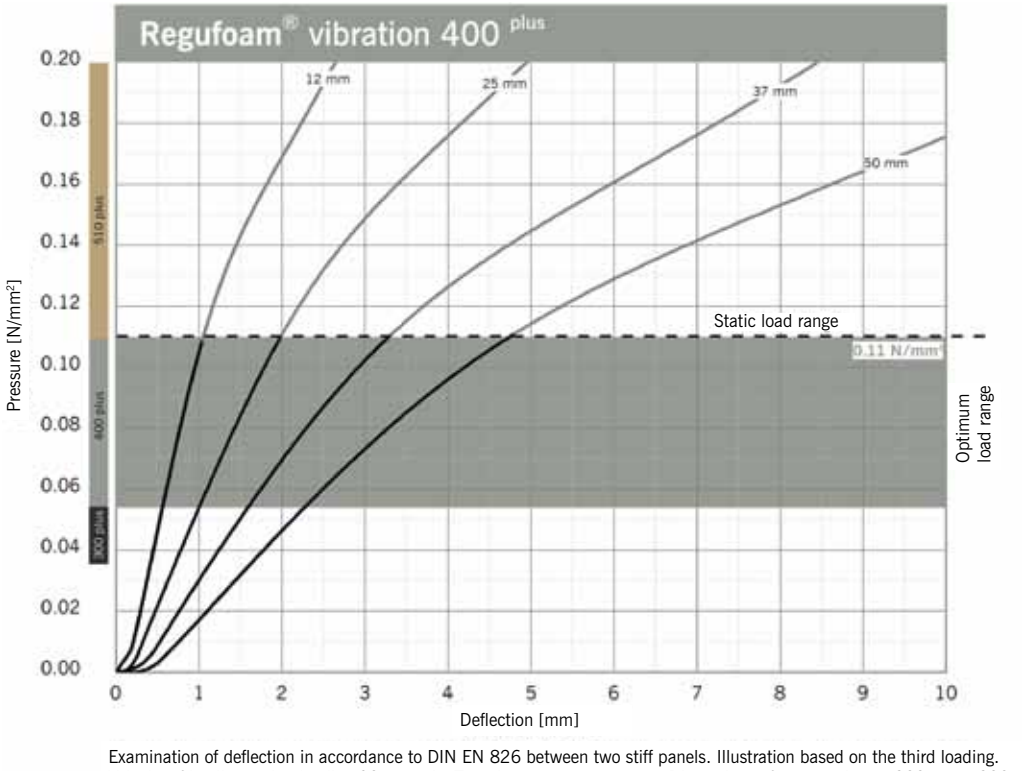
Static modulus of elasticity	Based on EN 826	0.6 - 1.0	N/mm²	Tangential modulus, see figure "Modulus of elasticity"
Dynamic modulus of elasticity	Based on DIN 53513	1.2 - 2.0	N/mm²	Depending on frequency, load and thickness, see figure "dynamic stiffness"
Mechanical loss factor	DIN 53513	0.17	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	3.9	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	1.5	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	220	%	
Tear resistance	Based on DIN ISO 34-1	6.0	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.7 0.8	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	170	kPa	Compressive stress at 25 % deformation test specimen h = 25 mm
Rebound elasticity	Based on DIN EN ISO 8307	57	%	dependent on thickness, test specimen h = 25 mm
Force reduction	DIN EN 14904	68	%	dependent on thickness, test specimen h = 25 mm

N/mm²
2.50
990plus
0.85
810plus
0.60
740plus
0.45
680plus
0.30
570plus
0.22
510plus
0.11
400plus
0.055
300plus
0.042
270plus
0.028
220plus
0.018
190plus
0.011
150plus
0

Load Ranges



Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocity of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 300 mm x 300 mm.

Vibration Isolation

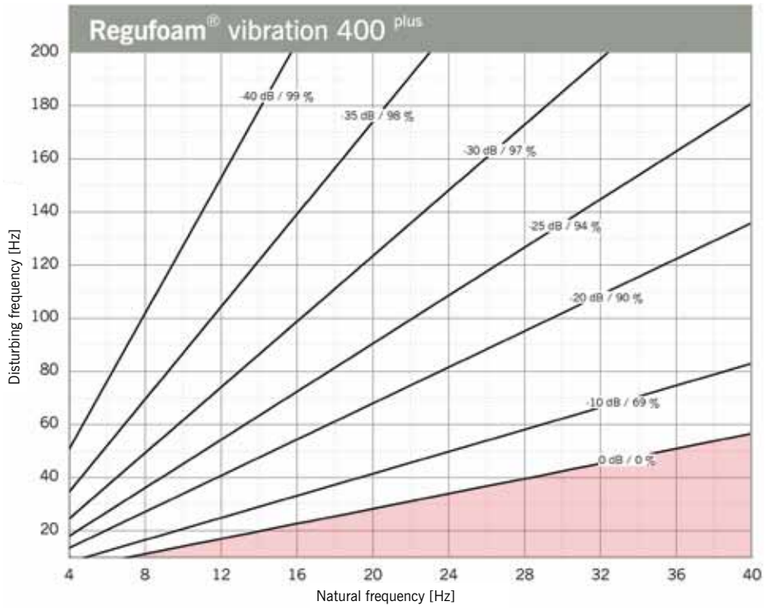
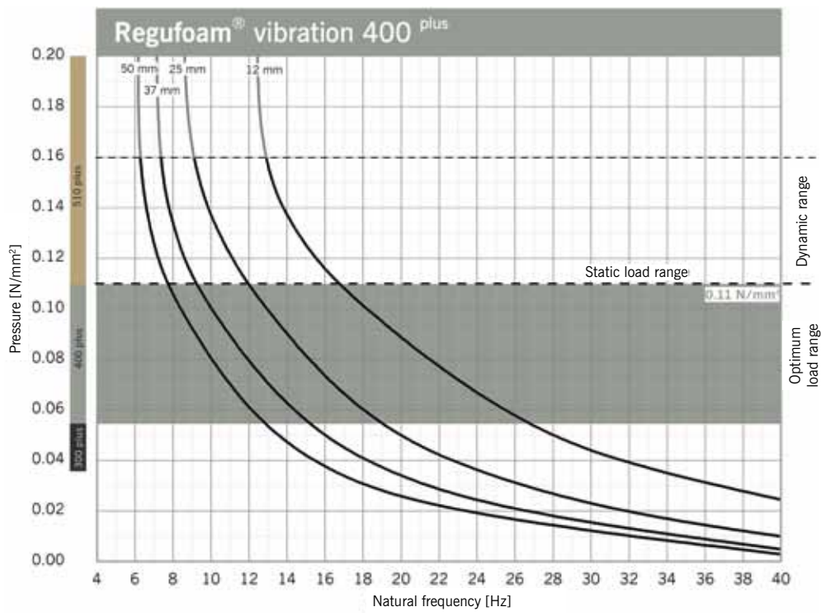
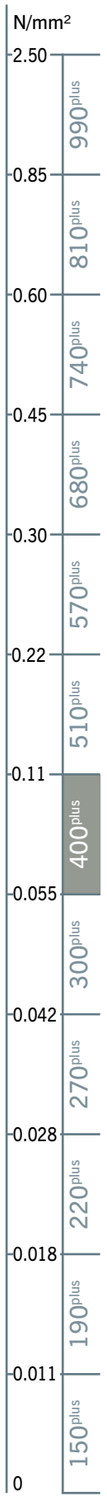


Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regufoam® vibration 400** plus. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

Natural Frequency

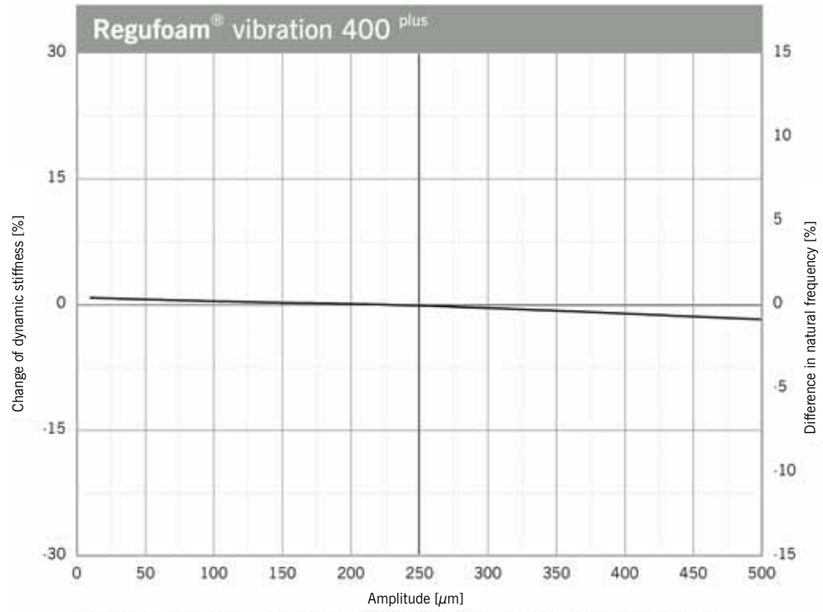


Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regufoam® vibration 400** plus on a rigid base. Dimensions of test specimens 300 mm x 300 mm.

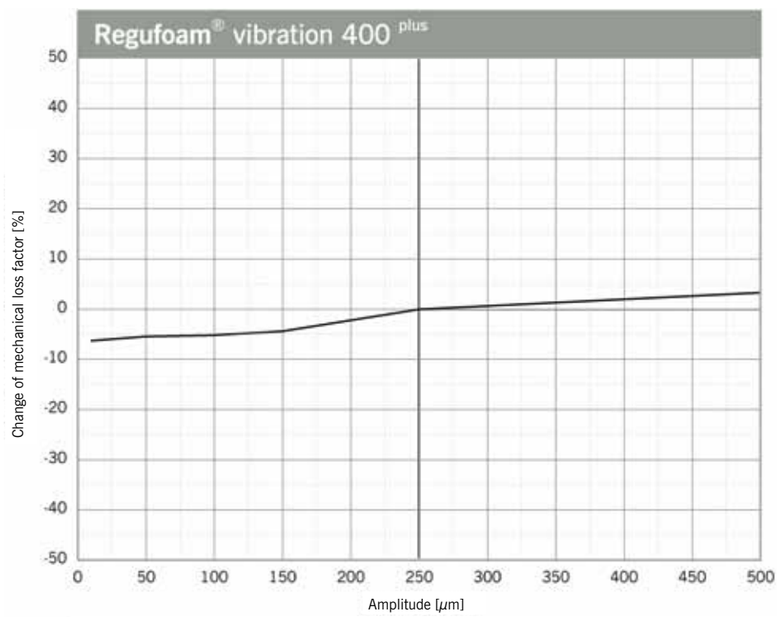


Regufoam® vibration 400 plus 2.6

Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation. Sinusoidal excitation at a constant mean load of 0.11 N/mm², dimensions of the specimens 300 mm x 300 mm x 25 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.11 N/mm², dimensions of the specimens 300 mm x 300 mm x 25 mm.

Modulus of Elasticity

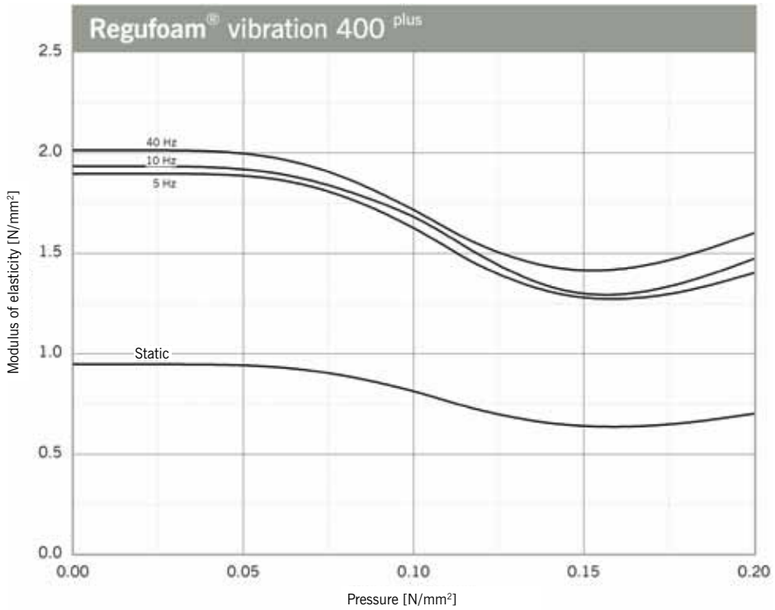


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 25 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

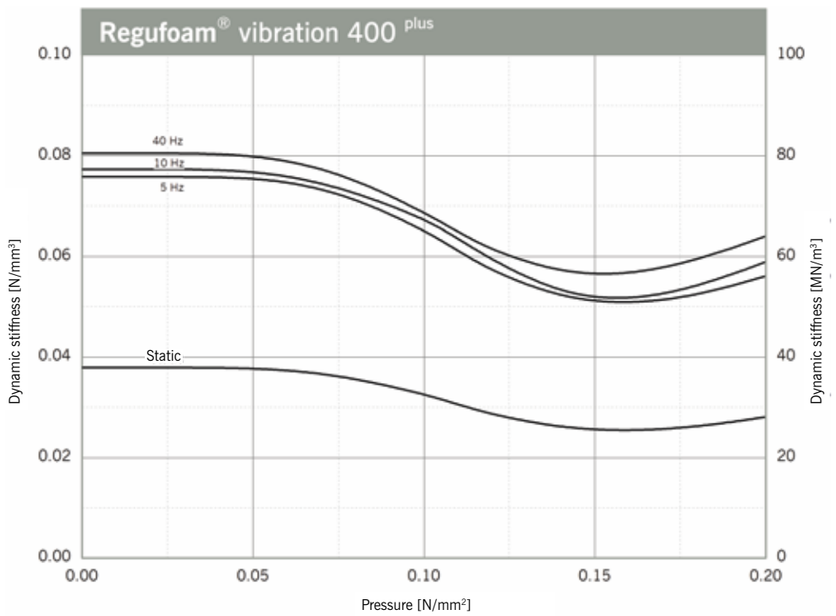
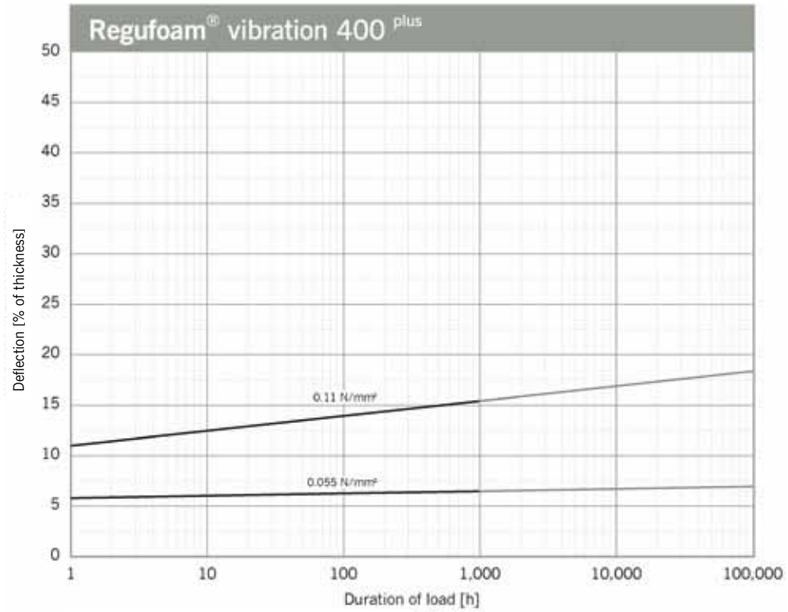


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load an and amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 25 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regufoam® vibration 400 plus 2.6

Long-Term Creep Test



Dimensions of specimens 300 mm x 300 mm x 50 mm

Exclusion of Liability

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BSW

Regufoam® vibration 510 plus

Standard forms of delivery, ex warehouse
Plates
Thickness: 12 and 25 mm, special thicknesses on request
Length: 1,500 mm, special lengths available
Width: 1,000 mm

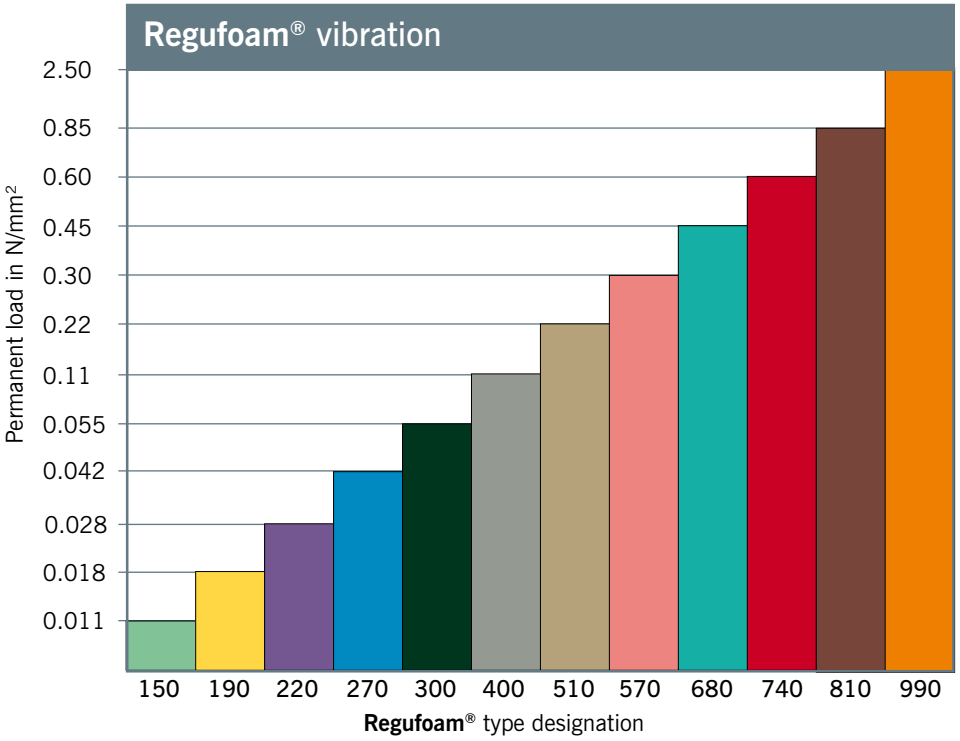
Stripping/smaller sizes
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

Continuous static load
0.22 N/mm²
Continuous and variable loads/operating load range
0 to 0.32 N/mm²
Peak loads (rare, short-term loads)
up to 4 N/mm²

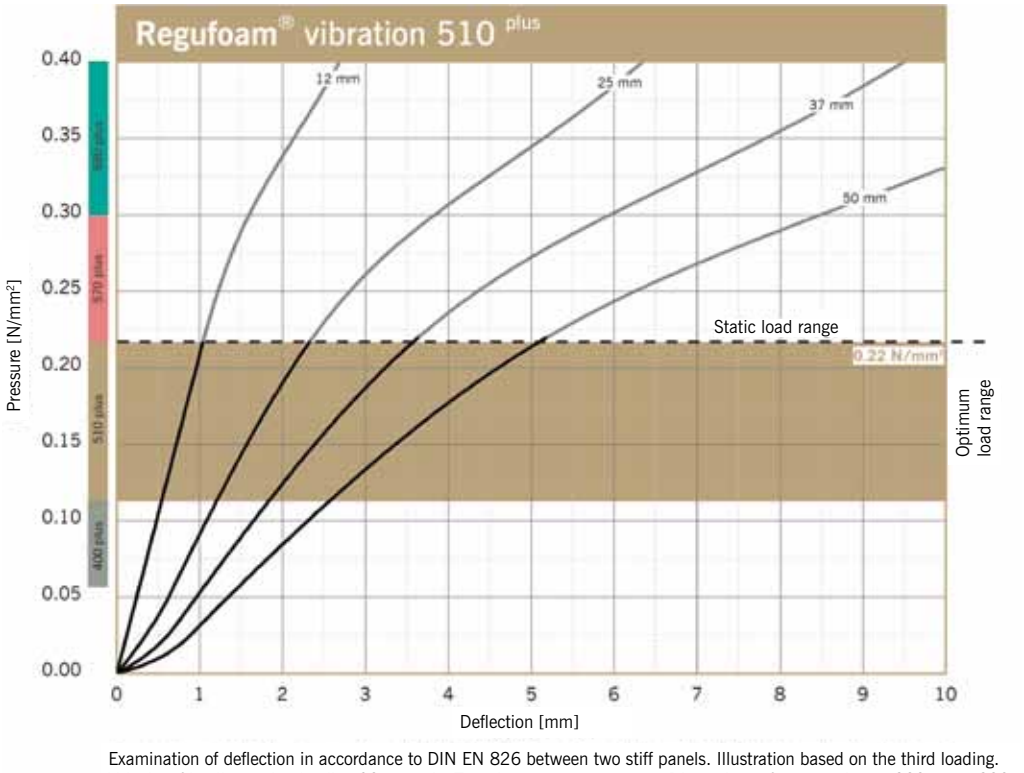
Static modulus of elasticity	Based on EN 826	1.1 - 1.7	N/mm²	Tangential modulus, see figure “Modulus of elasticity”
Dynamic modulus of elasticity	Based on DIN 53513	2.2 - 3.7	N/mm²	Depending on frequency, load and thickness, see figure “dynamic stiffness“
Mechanical loss factor	DIN 53513	0.15	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	4.2	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	2.4	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	240	%	
Tear resistance	Based on DIN ISO 34-1	9.3	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.7 0.8	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	330	kPa	Compressive stress at 25 % deformation test specimen h = 25 mm
Rebound elasticity	Based on DIN EN ISO 8307	60	%	dependent on thickness, test specimen h = 25 mm
Force reduction	DIN EN 14904	61	%	dependent on thickness, test specimen h = 25 mm

N/mm²
2.50
990plus
0.85
810plus
0.60
740plus
0.45
680plus
0.30
570plus
0.22
510plus
0.11
400plus
0.055
300plus
0.042
270plus
0.028
220plus
0.018
190plus
0.011
150plus
0

Load Ranges



Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocity of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 300 mm x 300 mm.

Vibration Isolation

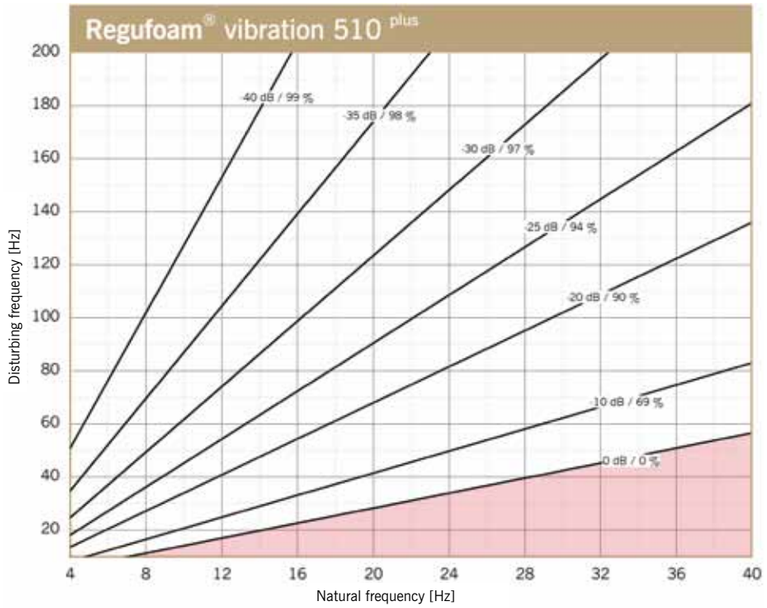
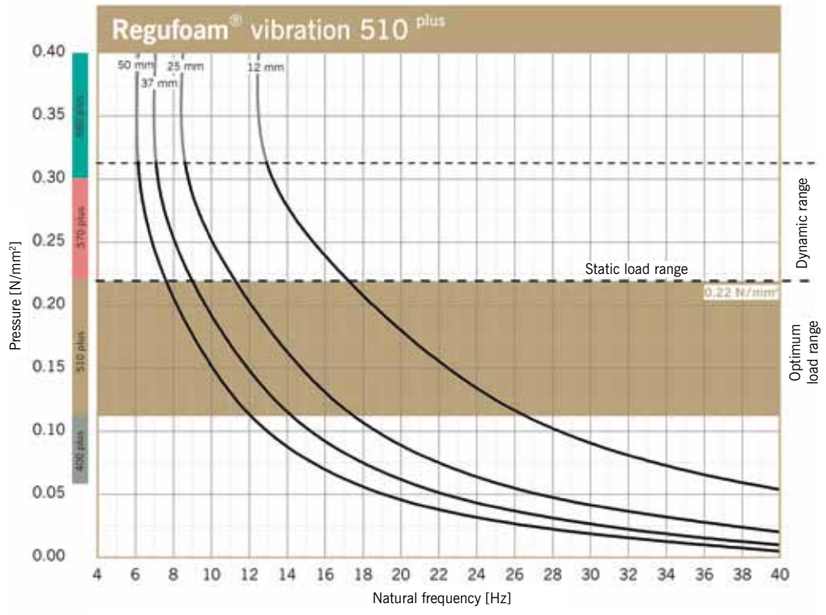
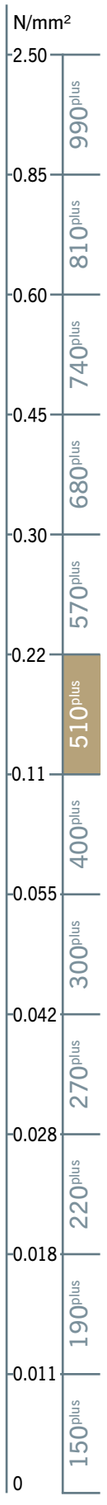


Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regufoam® vibration 510 plus**. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

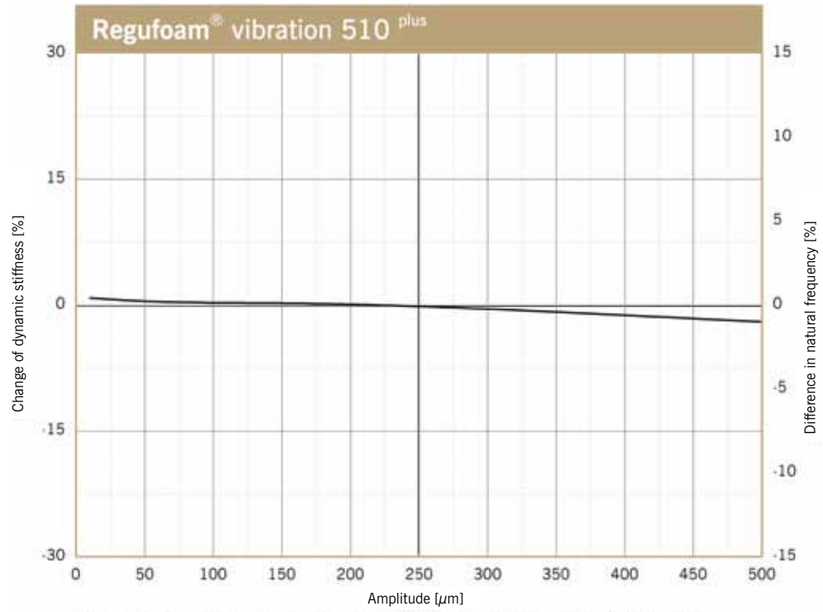
Natural Frequency



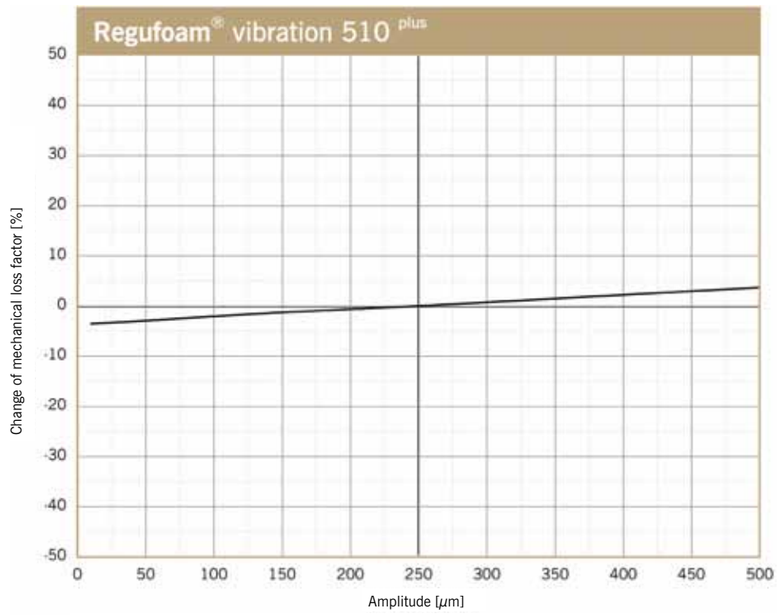
Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regufoam® vibration 510 plus** on a rigid base. Dimensions of test specimens 300 mm x 300 mm.



Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation. Sinusoidal excitation at a constant mean load of 0.22 N/mm², dimensions of the specimens 300 mm x 300 mm x 25 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.22 N/mm², dimensions of the specimens 300 mm x 300 mm x 25 mm.

Modulus of Elasticity

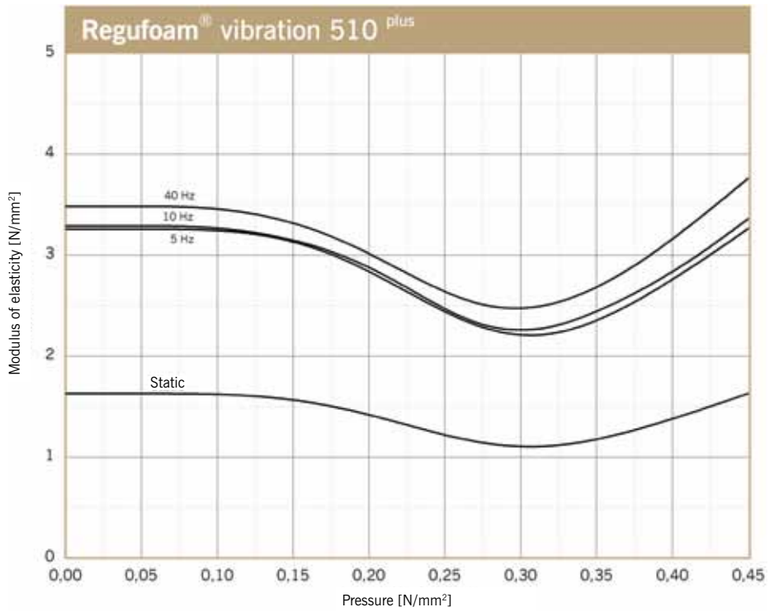


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 25 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

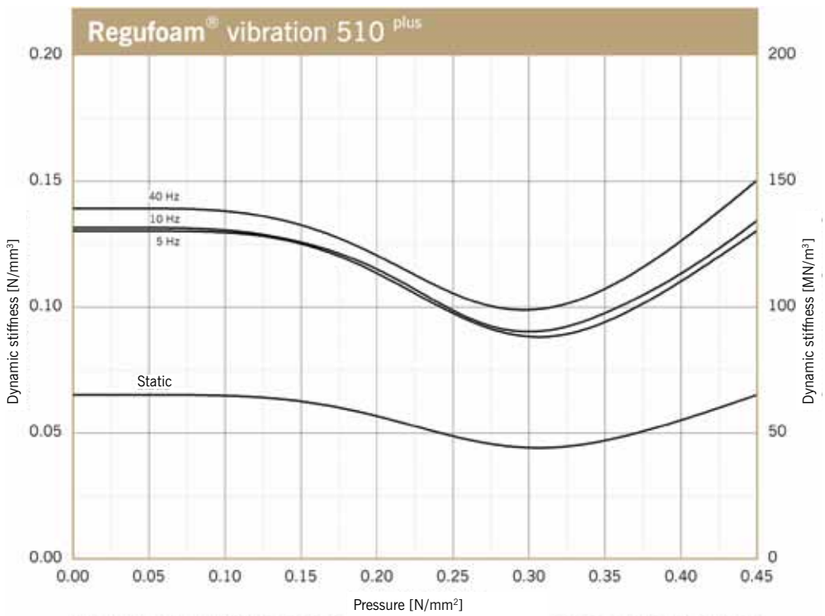
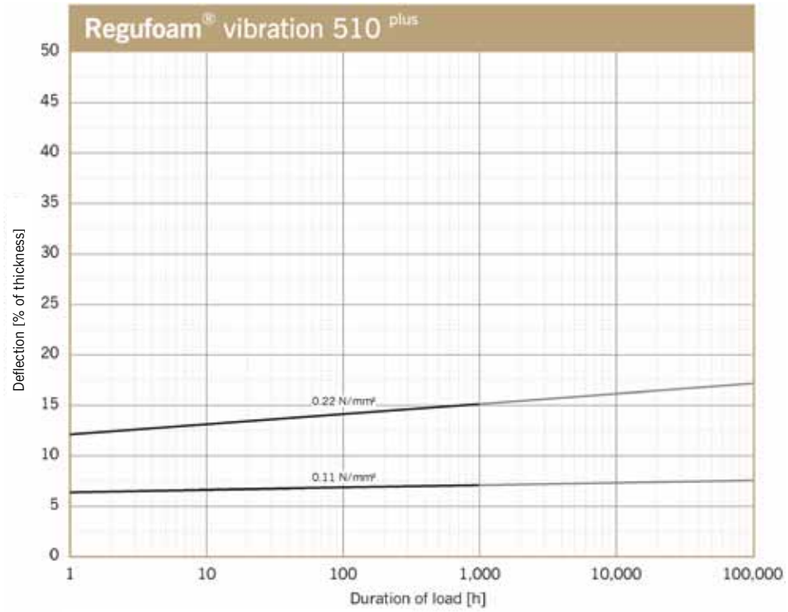


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load an and amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 25 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regufoam® vibration 510 plus 2.7

Long-Term Creep Test



Dimensions of specimens 300 mm x 300 mm x 50 mm

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BSW

Regufoam® vibration 570 plus

2.8

Standard forms of delivery, ex warehouse
Plates
Thickness: 12 and 25 mm, special thicknesses on request
Length: 1,500 mm, special lengths available
Width: 1,000 mm

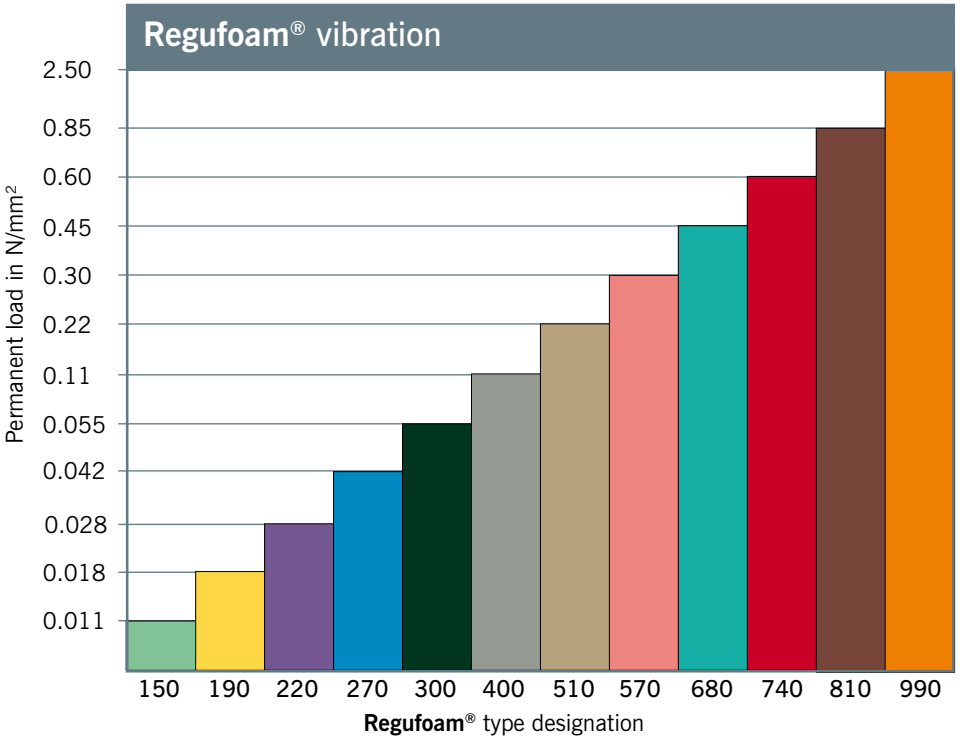
Stripping/smaller sizes
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

Continuous static load
0.30 N/mm²
Continuous and variable loads/operating load range
0 to 0.42 N/mm²
Peak loads (rare, short-term loads)
up to 4.5 N/mm²

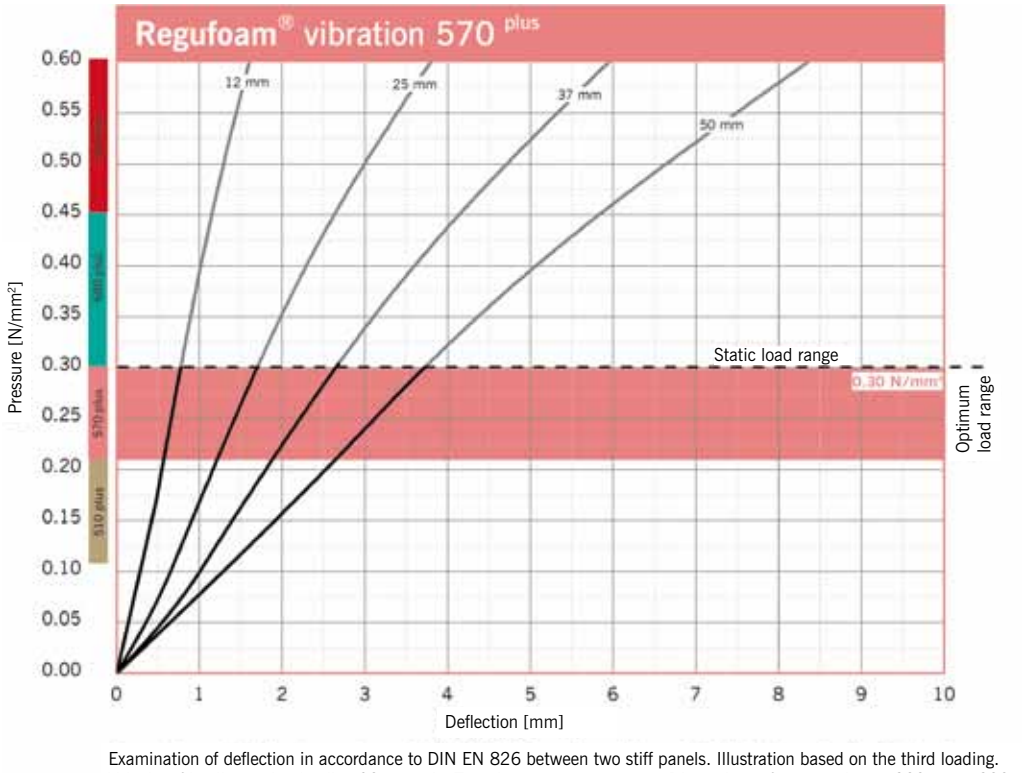
Static modulus of elasticity	Based on EN 826	2.6 - 2.7	N/mm²	Tangential modulus, see figure “Modulus of elasticity”
Dynamic modulus of elasticity	Based on DIN 53513	5.1 - 6.3	N/mm²	Depending on frequency, load and thickness, see figure “dynamic stiffness“
Mechanical loss factor	DIN 53513	0.14	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	4.4	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	2.9	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	210	%	
Tear resistance	Based on DIN ISO 34-1	14.1	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.6 0.7	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	620	kPa	Compressive stress at 25 % deformation test specimen h = 25 mm
Rebound elasticity	Based on DIN EN ISO 8307	58	%	dependent on thickness, test specimen h = 25 mm
Force reduction	DIN EN 14904	50	%	dependent on thickness, test specimen h = 25 mm

N/mm²
2.50
990plus
0.85
810plus
0.60
740plus
0.45
680plus
0.30
570plus
0.22
510plus
0.11
400plus
0.055
300plus
0.042
270plus
0.028
220plus
0.018
190plus
0.011
150plus
0

Load Ranges



Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocity of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 300 mm x 300 mm.

Vibration Isolation

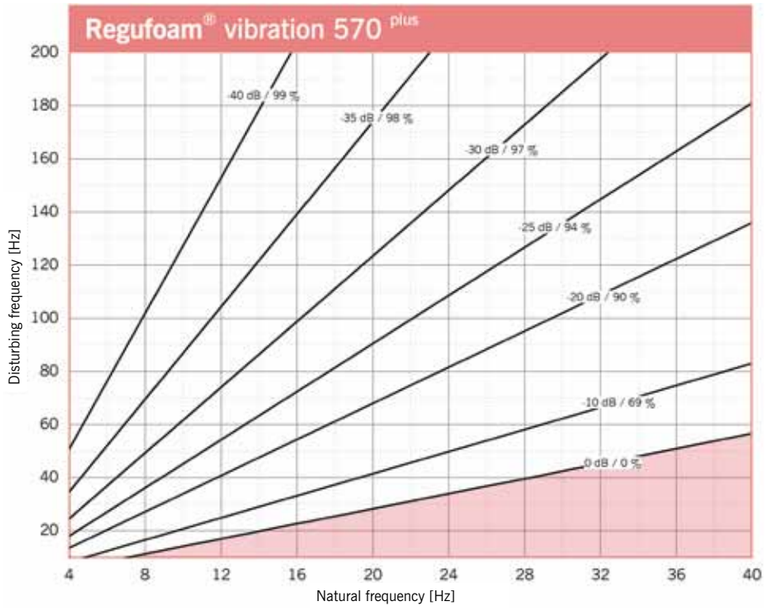
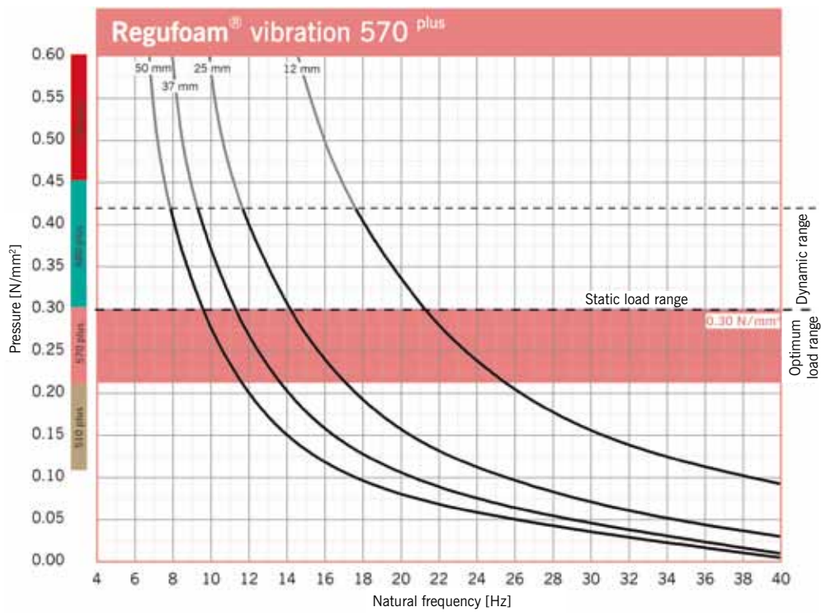


Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regufoam® vibration 570** plus. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

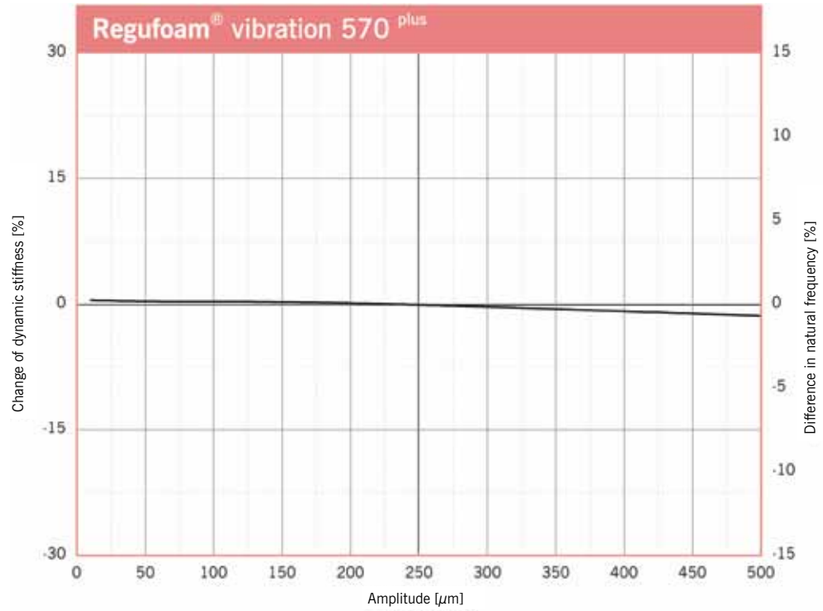
Natural Frequency



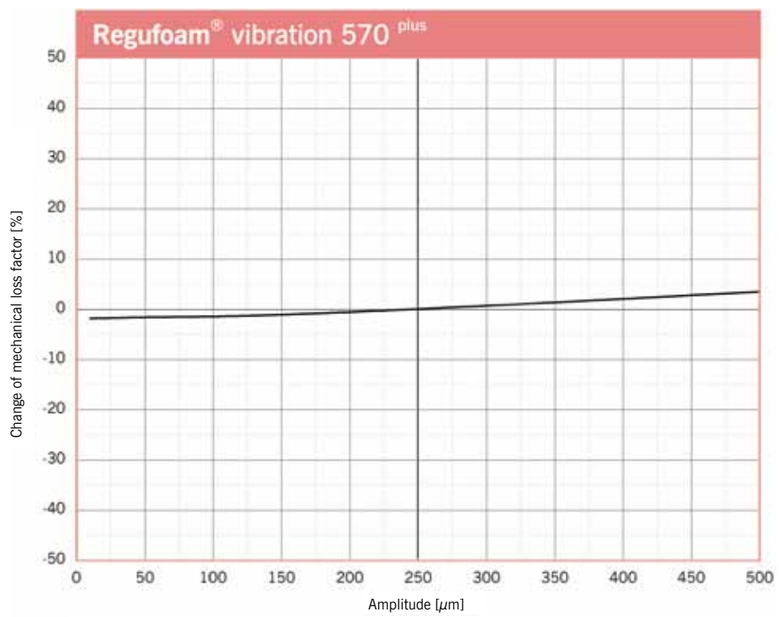
Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regufoam® vibration 570** plus on a rigid base. Dimensions of test specimens 300 mm x 300 mm.

Regufoam® vibration 570 plus 2.8

Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation. Sinusoidal excitation at a constant mean load of 0.30 N/mm², dimensions of the specimens 300 mm x 300 mm x 25 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.30 N/mm², dimensions of the specimens 300 mm x 300 mm x 25 mm.

Modulus of Elasticity

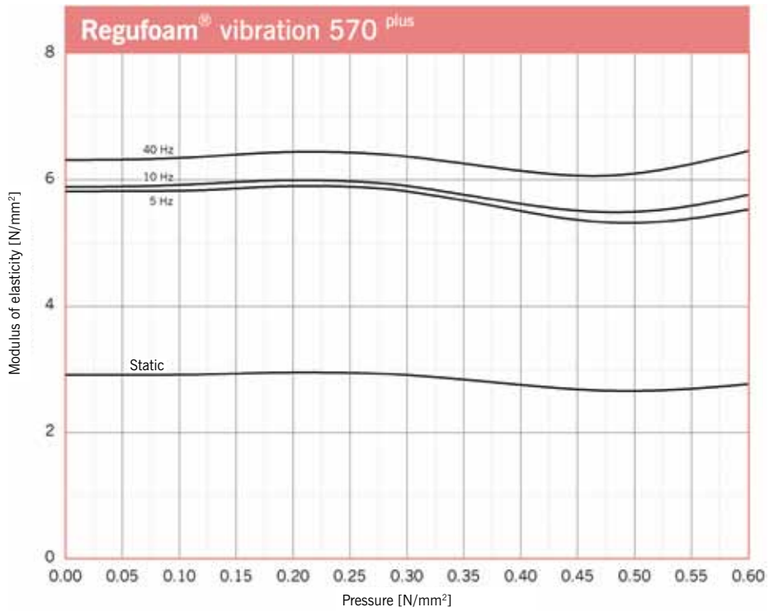


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 25 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

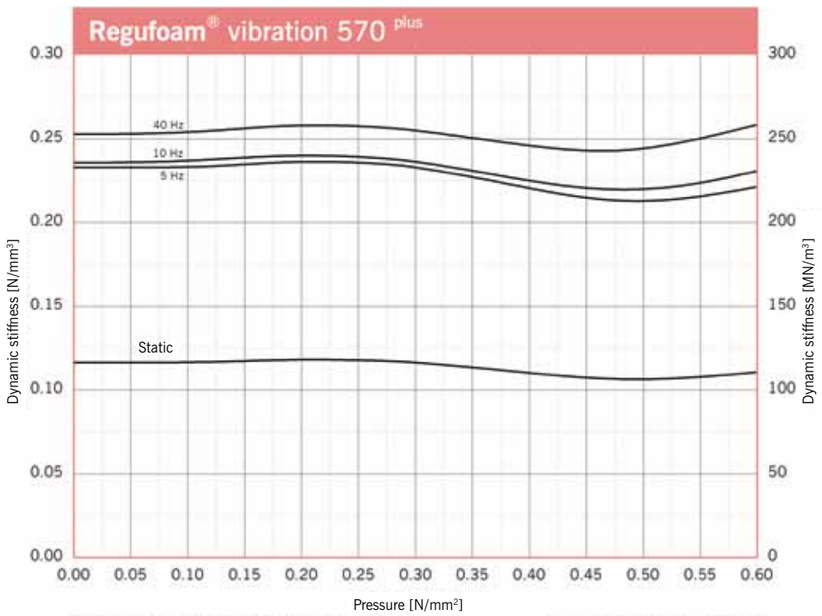
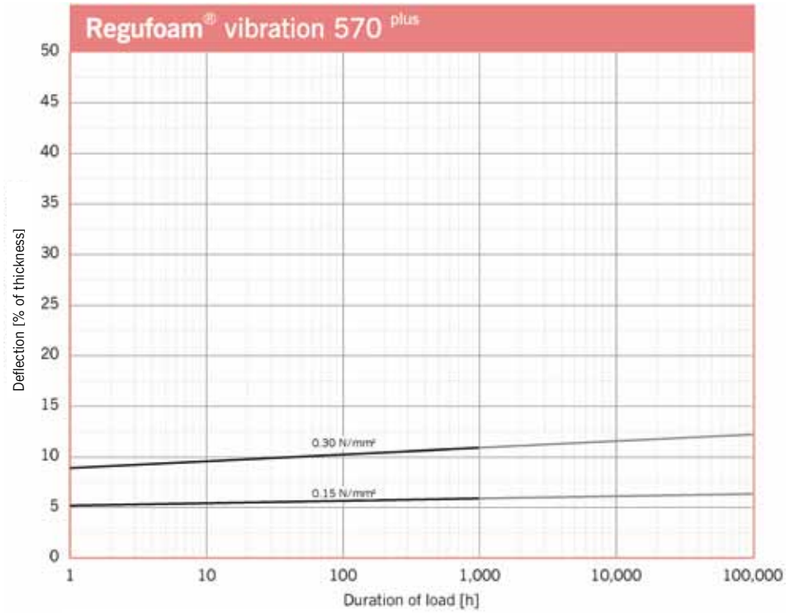


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load an and amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 25 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regufoam® vibration 570 plus 2.8

Long-Term Creep Test



Dimensions of specimens 300 mm x 300 mm x 50 mm

Exclusion of Liability

Technical services and offers based on these are subject to our General Terms and Conditions of sale, a copy of which can be found on our website www.bsw-vibration-technology.com. Special attention should be paid to paragraphs 4 and 5. In so far, please be advised as follows: Our expertise is the development and manufacturing of products. With our recommendation we can only assist you in selecting a product that is suitable for your demand. However, we cannot act as your architect or consulting expert. This would only be possible subject to a separately concluded service contract that we would have to bill you for. Such contracts are not part of our scope of supply and services. Hence, our recommendation does not lay claim for its correctness. Guarantees do only apply to the technical properties of the material supplied. All given values are approximate values.

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Florian Sassmannshausen, Phone: +49 2751 803-230 • f.sassmannshausen@berleburger.de •
Downloads at www.bsw-vibration-technology.com

BSW

Regufoam® vibration 680 plus

Standard forms of delivery, ex warehouse
Plates
Thickness: 12 and 25 mm, special thicknesses on request
Length: 1,500 mm, special lengths available
Width: 1,000 mm

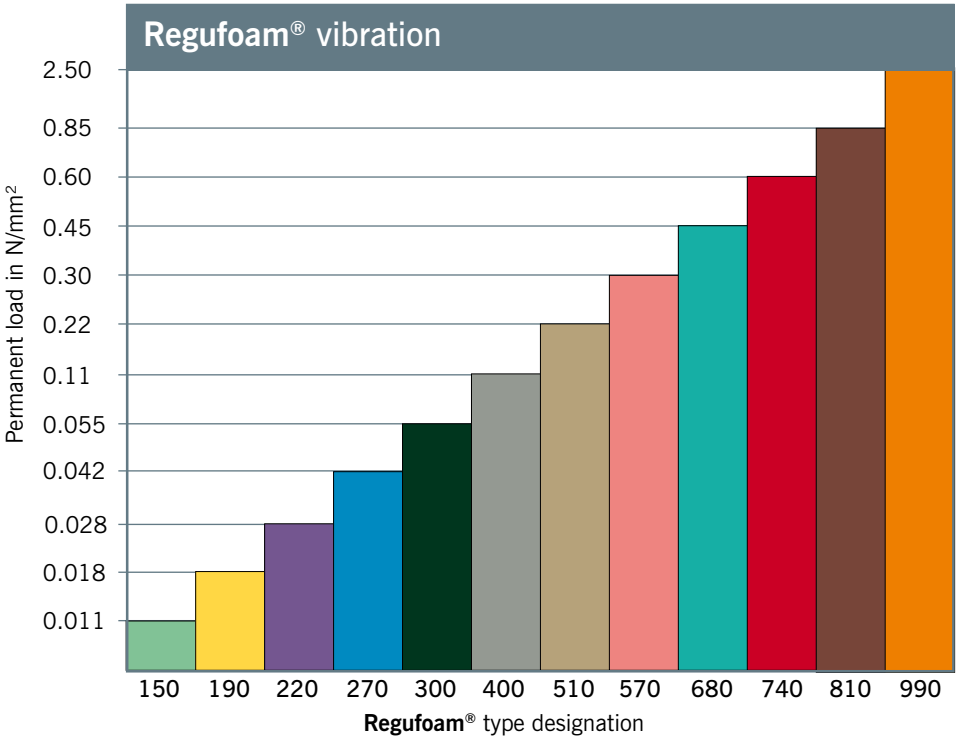
Stripping/smaller sizes
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

Continuous static load
0.45 N/mm²
Continuous and variable loads/operating load range
0 to 0.62 N/mm²
Peak loads (rare, short-term loads)
up to 5 N/mm²

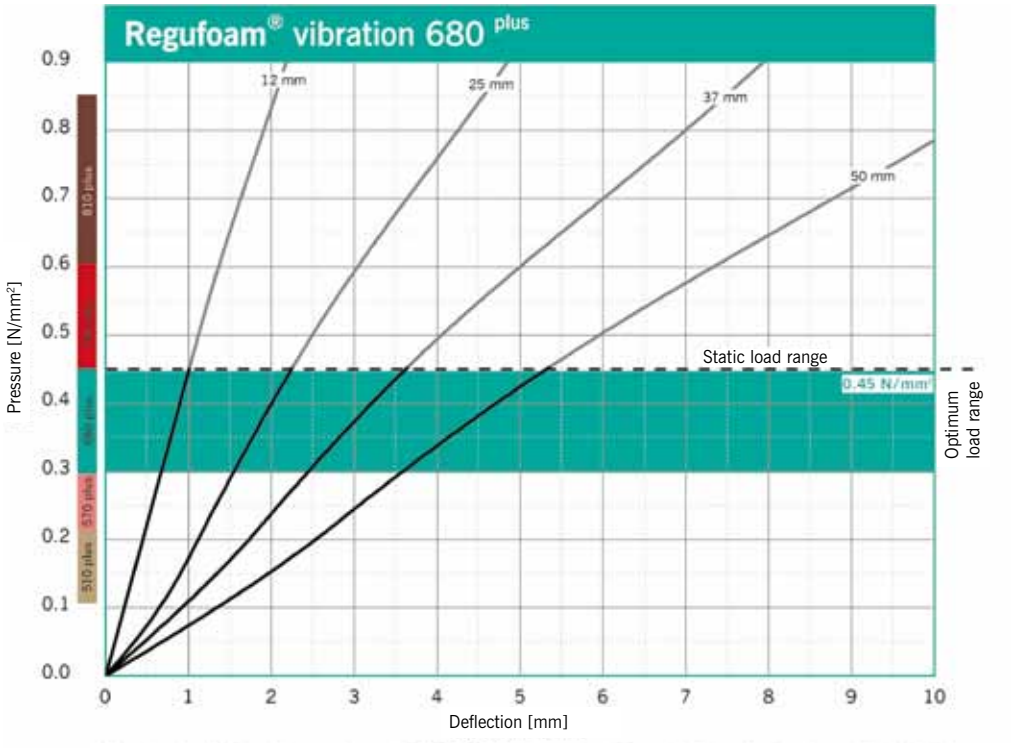
Static modulus of elasticity	Based on EN 826	2.0 - 2.9	N/mm²	Tangential modulus, see figure “Modulus of elasticity”
Dynamic modulus of elasticity	Based on DIN 53513	6.8 - 10.0	N/mm²	Depending on frequency, load and thickness, see figure “dynamic stiffness“
Mechanical loss factor	DIN 53513	0.12	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	6.2	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	3.6	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	230	%	
Tear resistance	Based on DIN ISO 34-1	18.5	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.6 0.7	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	840	kPa	Compressive stress at 25 % deformation test specimen h = 25 mm
Rebound elasticity	Based on DIN EN ISO 8307	58	%	dependent on thickness, test specimen h = 25 mm
Force reduction	DIN EN 14904	44	%	dependent on thickness, test specimen h = 25 mm

N/mm²
2.50
990plus
0.85
810plus
0.60
740plus
0.45
680plus
0.30
570plus
0.22
510plus
0.11
400plus
0.055
300plus
0.042
270plus
0.028
220plus
0.018
190plus
0.011
150plus
0

Load Ranges



Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocity of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 300 mm x 300 mm.

Vibration Isolation

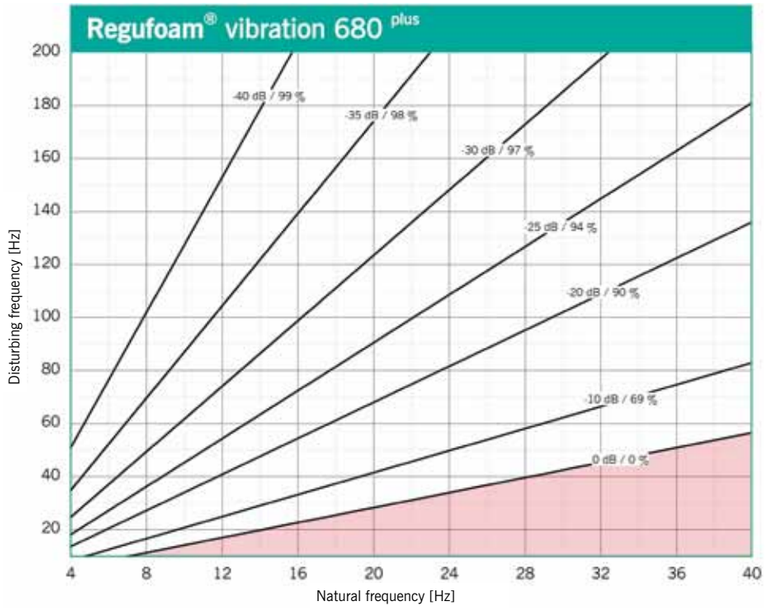
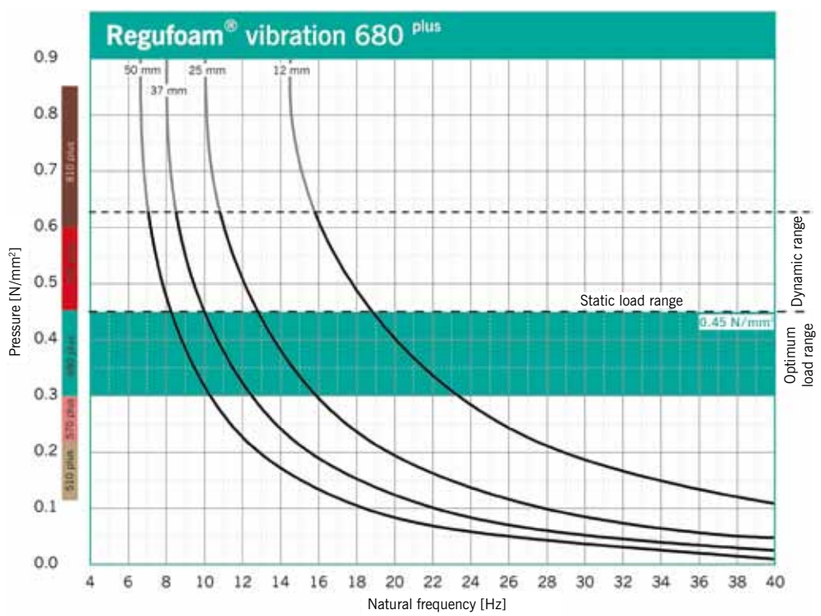


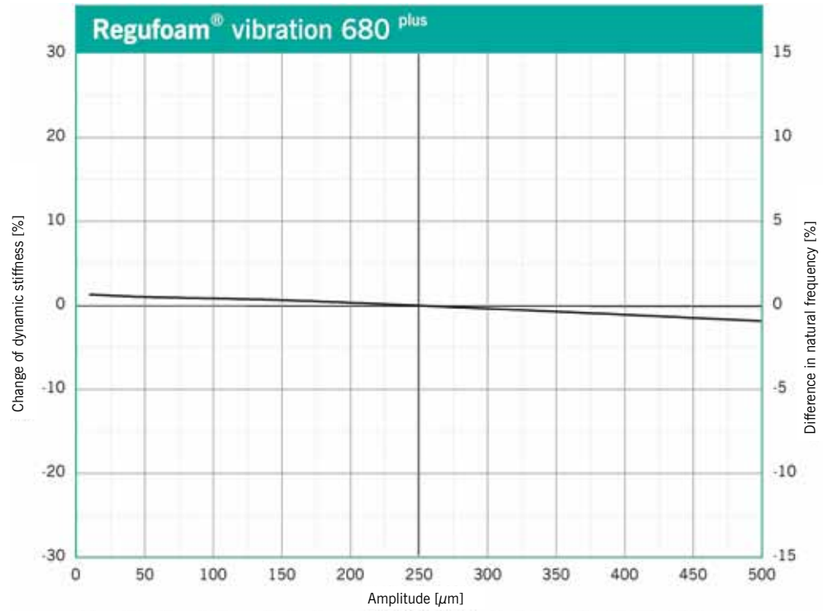
Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regufoam® vibration 680 plus**. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

Natural Frequency

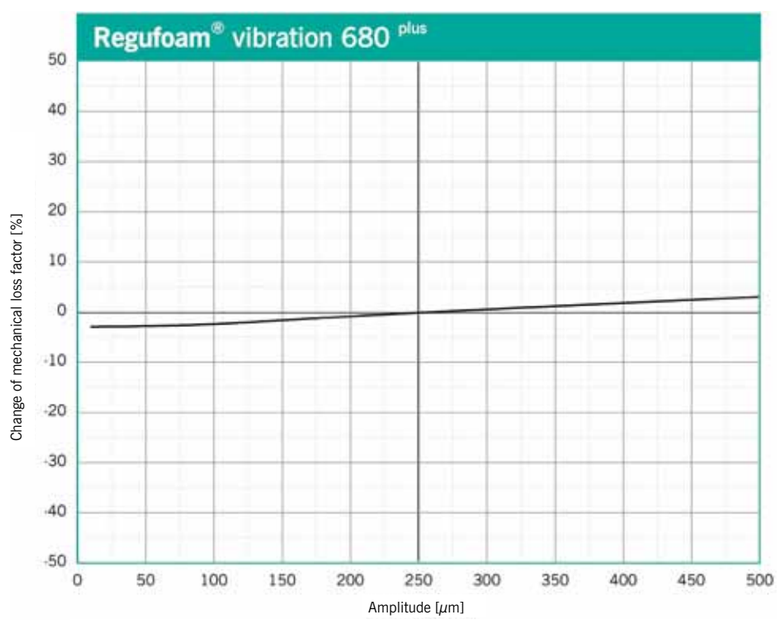


Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regufoam® vibration 680 plus** on a rigid base. Dimensions of test specimens 300 mm x 300 mm.

Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation. Sinusoidal excitation at a constant mean load of 0.45 N/mm², dimensions of the specimens 300 mm x 300 mm x 25 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.45 N/mm², dimensions of the specimens 300 mm x 300 mm x 25 mm.

Modulus of Elasticity

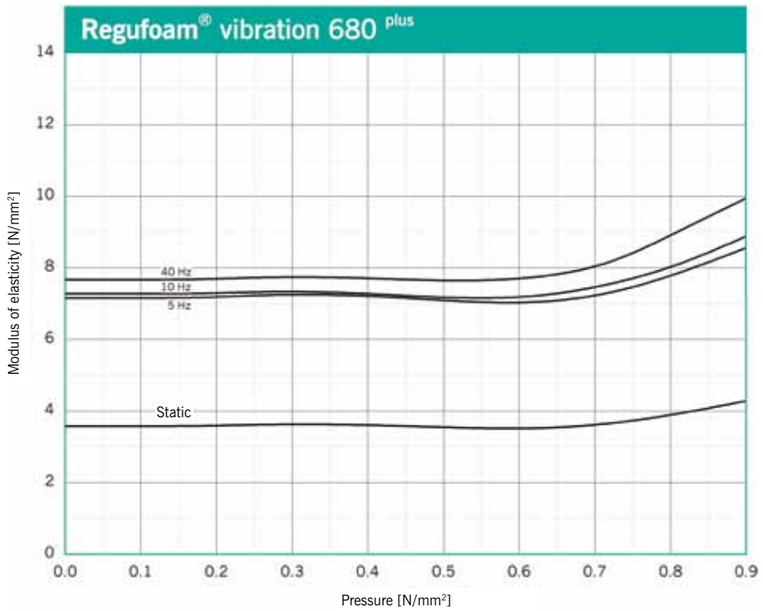


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 25 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

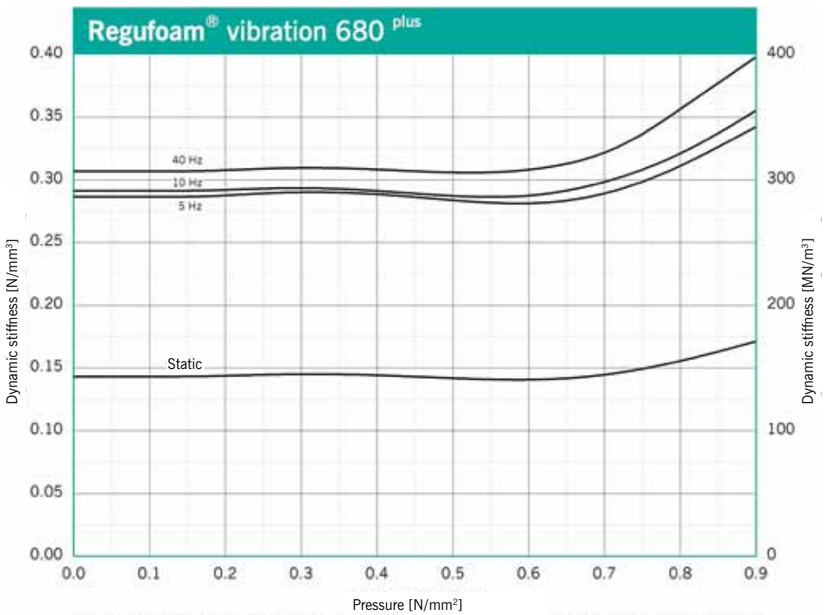
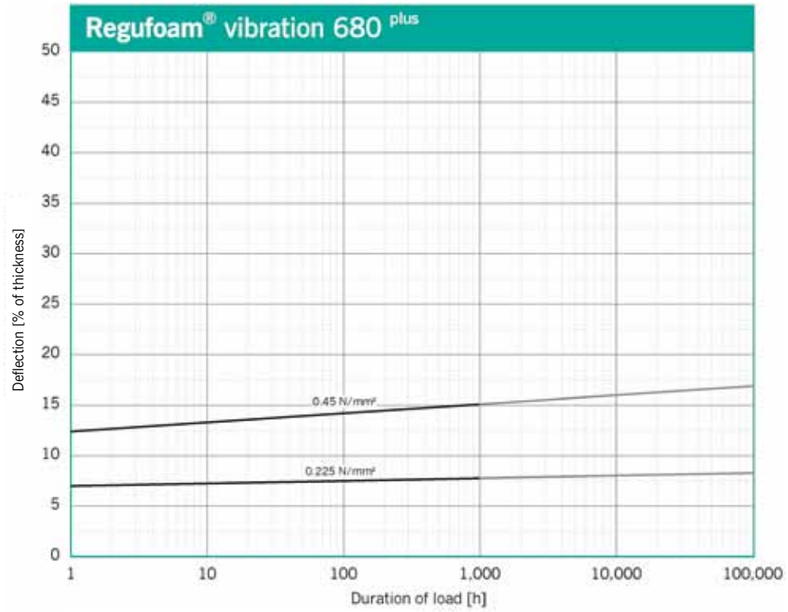


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load an and amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 25 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regufoam® vibration 680 plus 2.9

Long-Term Creep Test



Dimensions of specimens 300 mm x 300 mm x 50 mm

Exclusion of Liability

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Downloads at www.bsw-vibration-technology.com

BSW

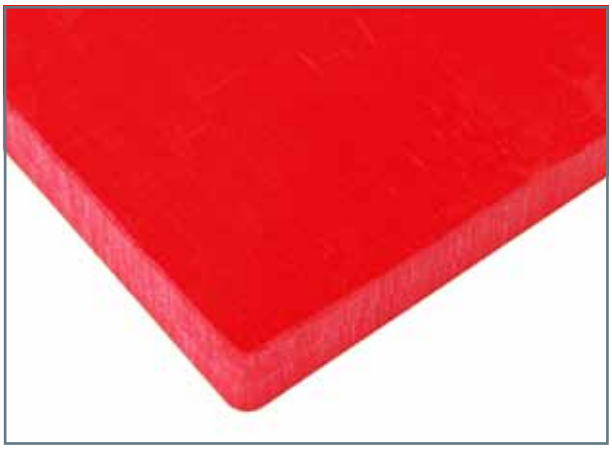
Regufoam® vibration 740 plus

2.10

Standard forms of delivery, ex warehouse
Plates
Thickness: 12 and 25 mm, special thicknesses on request
Length: 1,500 mm, special lengths available
Width: 1,000 mm

Stripping/smaller sizes
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

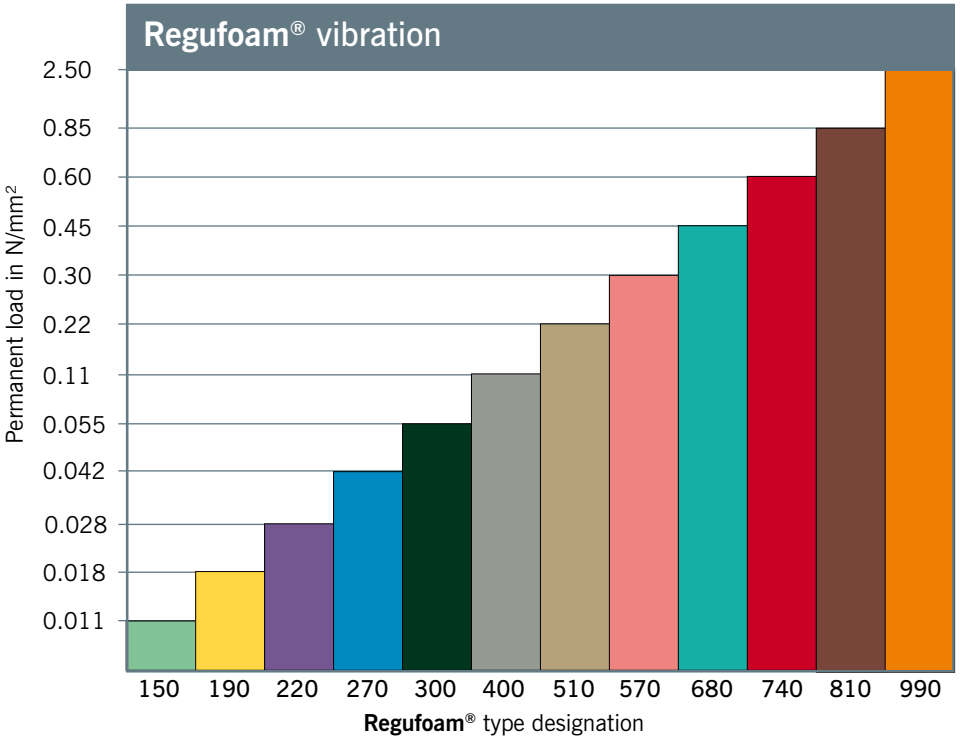
Continuous static load
0.60 N/mm²
Continuous and variable loads/operating load range
0 to 0.85 N/mm²
Peak loads (rare, short-term loads)
up to 6 N/mm²



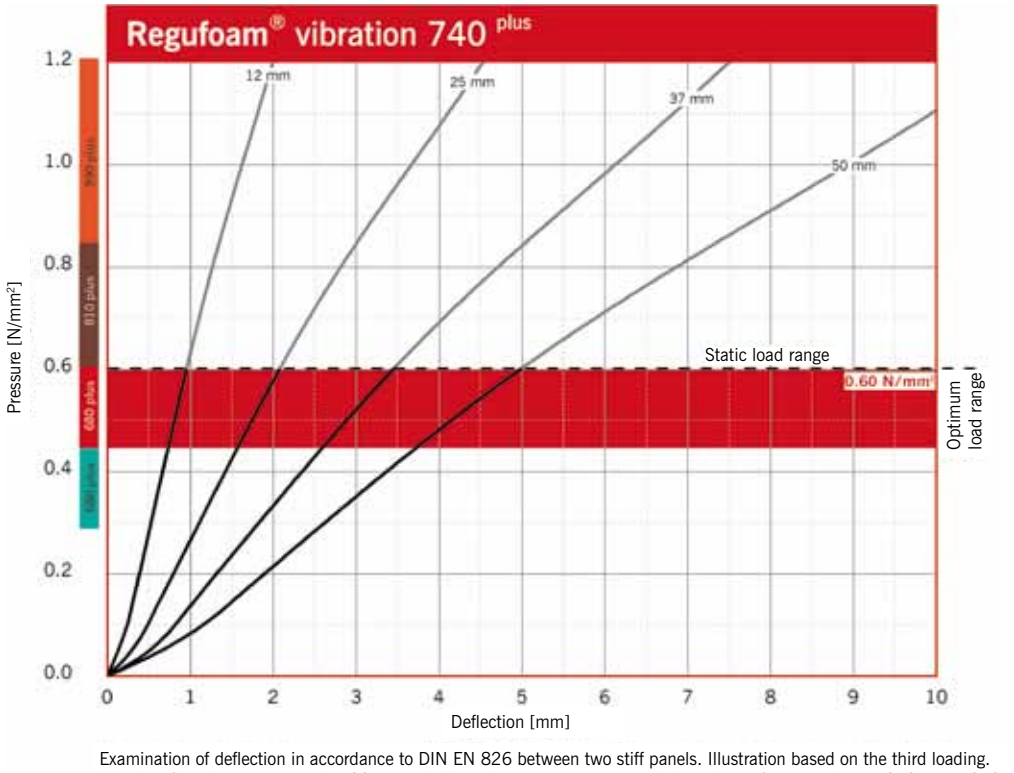
Static modulus of elasticity	Based on EN 826	4.3 - 5.9	N/mm²	Tangential modulus, see figure “Modulus of elasticity”
Dynamic modulus of elasticity	Based on DIN 53513	7.9 - 13.0	N/mm²	Depending on frequency, load and thickness, see figure “dynamic stiffness“
Mechanical loss factor	DIN 53513	0.11	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	4.8	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	4.0	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	210	%	
Tear resistance	Based on DIN ISO 34-1	19.0	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.6 0.7	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	1050	kPa	Compressive stress at 25 % deformation test specimen h = 25 mm
Rebound elasticity	Based on DIN EN ISO 8307	59	%	dependent on thickness, test specimen h = 25 mm
Force reduction	DIN EN 14904	39	%	dependent on thickness, test specimen h = 25 mm

N/mm²
2.50
990plus
0.85
810plus
0.60
740plus
0.45
680plus
0.30
570plus
0.22
510plus
0.11
400plus
0.055
300plus
0.042
270plus
0.028
220plus
0.018
190plus
0.011
150plus
0

Load Ranges



Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocity of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 250 mm x 250 mm.

Vibration Isolation

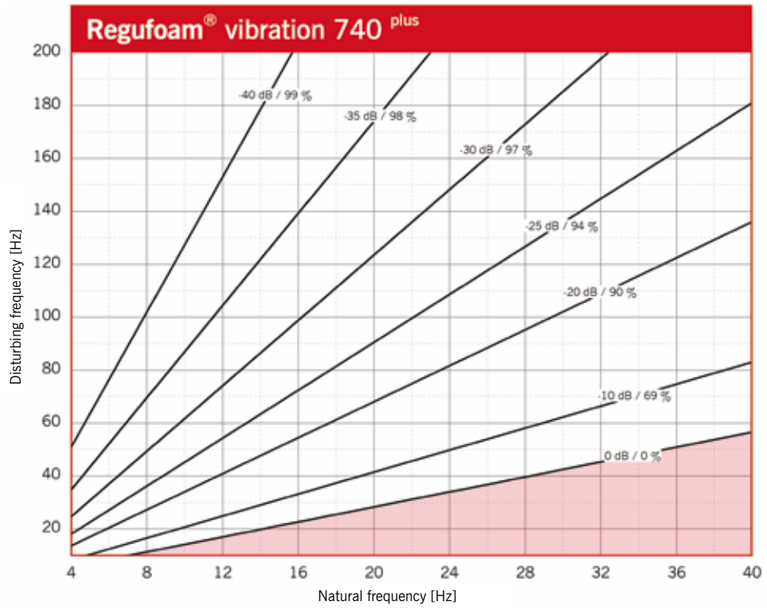
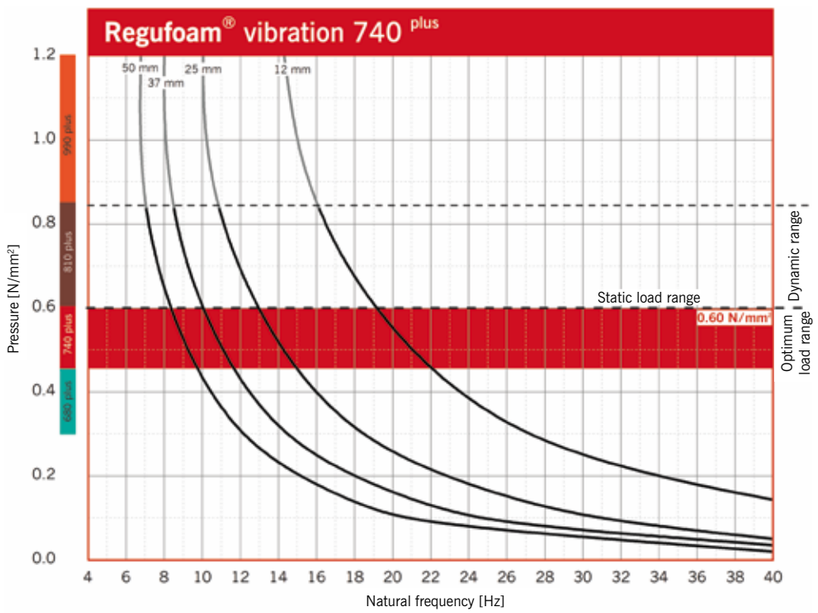


Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regufoam® vibration 740 plus**. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

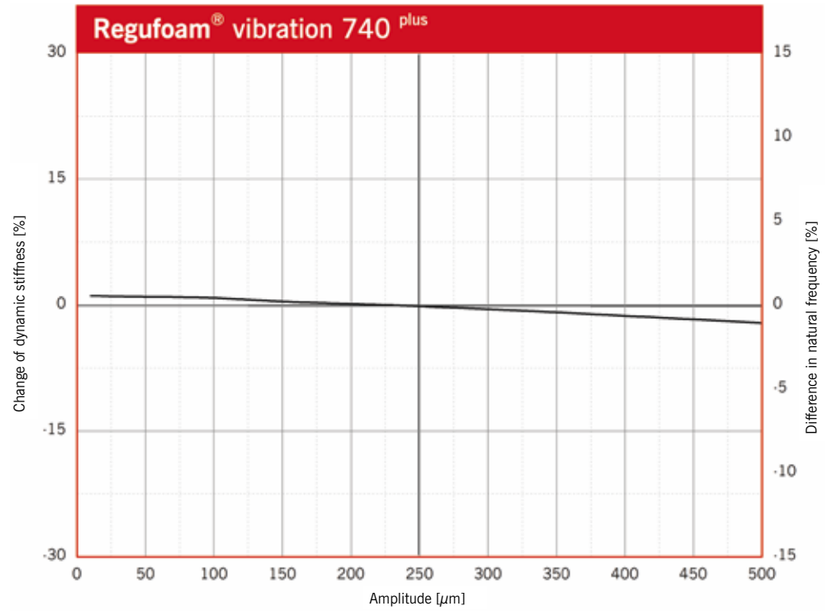
Natural Frequency



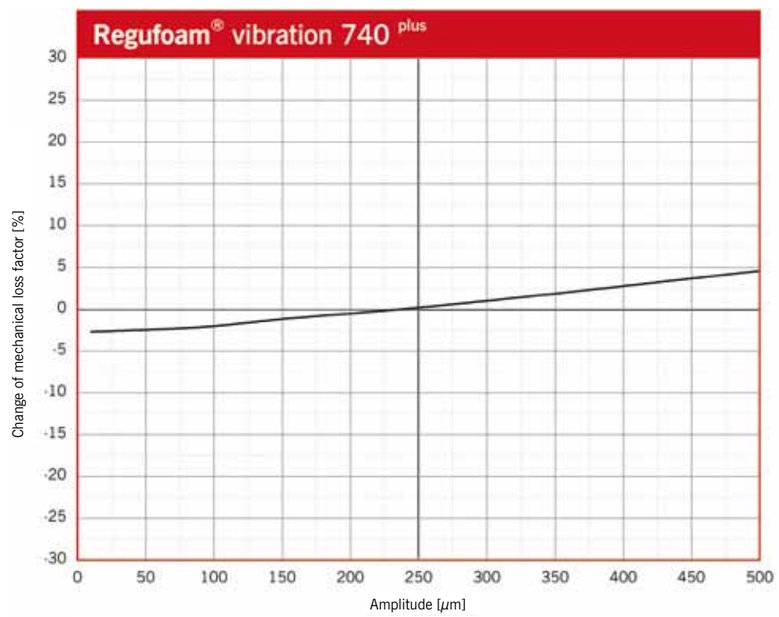
Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regufoam® vibration 740 plus** on a rigid base. Dimensions of test specimens 250 mm x 250 mm.

Regufoam® vibration 740 plus

Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation. Sinusoidal excitation at a constant mean load of 0.60 N/mm², dimensions of the specimens 250 mm x 250 mm x 50 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.60 N/mm², dimensions of the specimens 250 mm x 250 mm x 50 mm.

Modulus of Elasticity

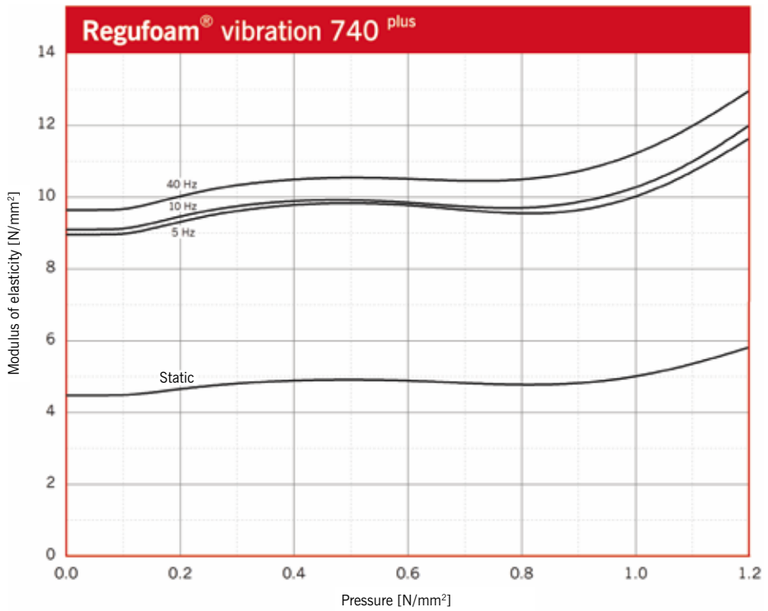


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 250 mm x 250 mm x 25 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

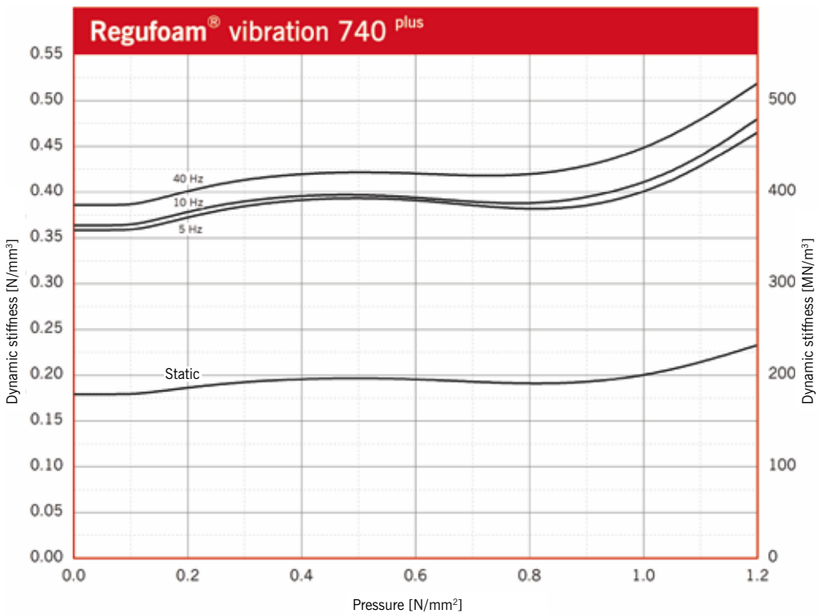
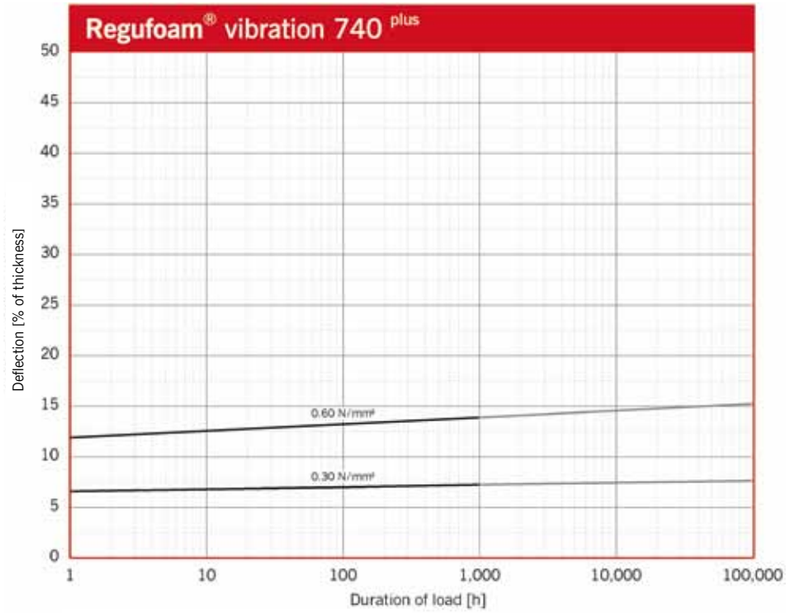


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load an and amplitude of ± 0.25 mm. Dimensions of specimens 250 mm x 250 mm x 25 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regufoam® vibration 740 plus 2.10

Long-Term Creep Test



Dimensions of specimens 250 mm x 250 mm x 50 mm

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BSW

Regufoam® vibration 810 plus

2.11

Standard forms of delivery, ex warehouse
Plates
Thickness: 12 and 25 mm, special thicknesses on request
Length: 1,500 mm, special lengths available
Width: 1,000 mm

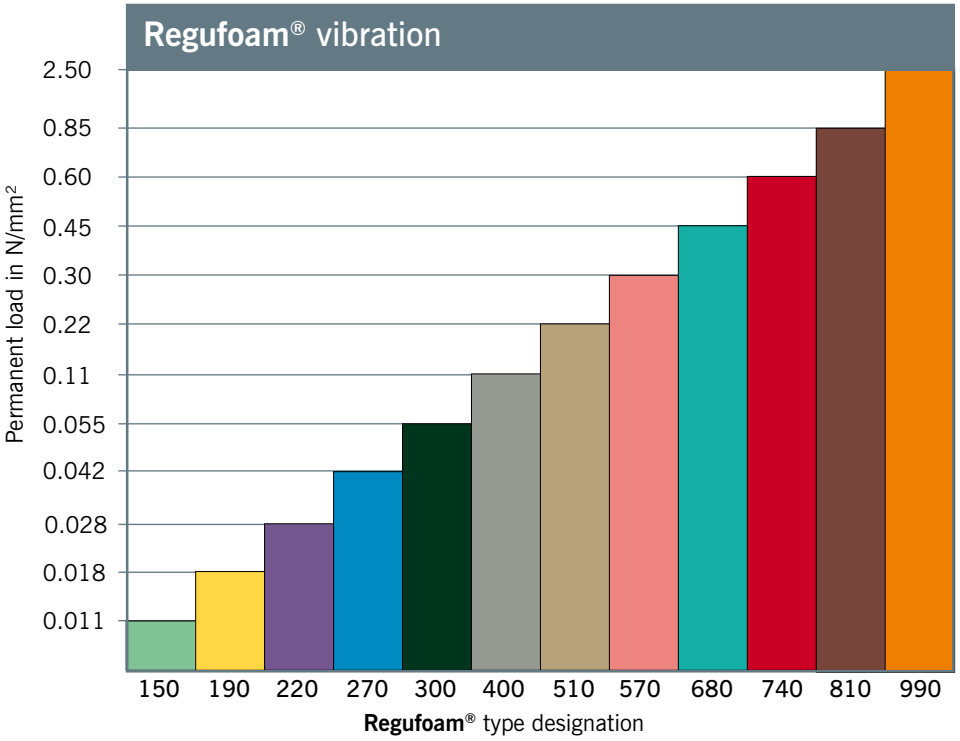
Stripping/smaller sizes
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

Continuous static load
0.85 N/mm²
Continuous and variable loads/operating load range
0 to 1.20 N/mm²
Peak loads (rare, short-term loads)
up to 7 N/mm²

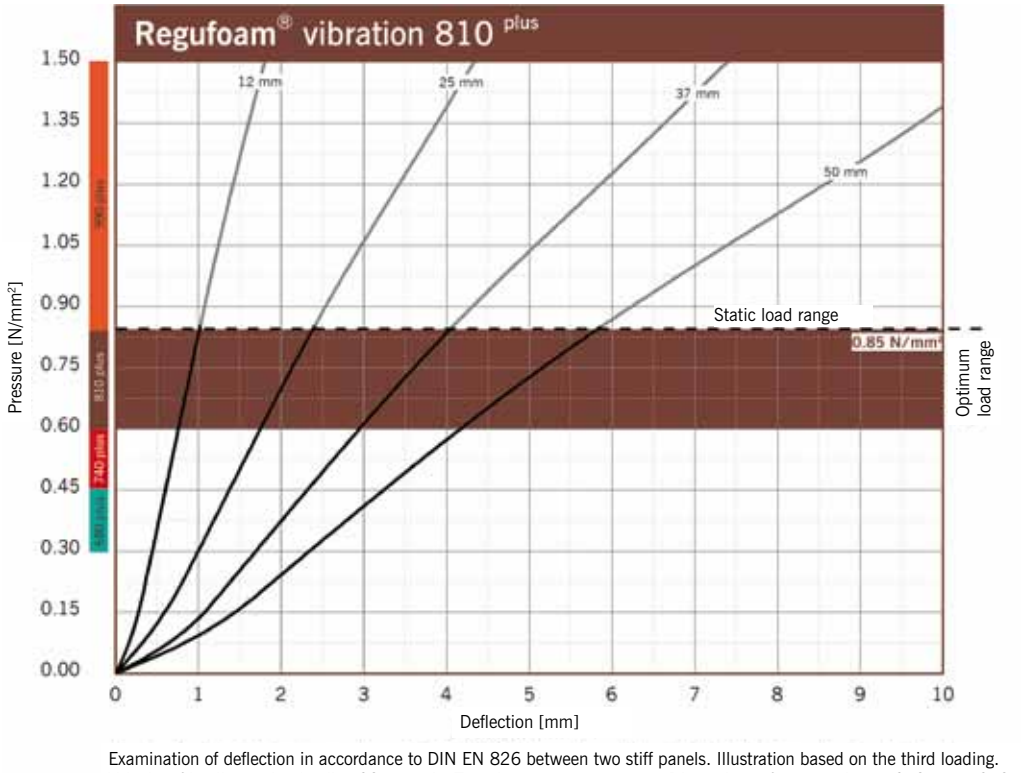
Static modulus of elasticity	Based on EN 826	5.8 - 7.2	N/mm²	Tangential modulus, see figure “Modulus of elasticity”
Dynamic modulus of elasticity	Based on DIN 53513	11.0 - 16.5	N/mm²	Depending on frequency, load and thickness, see figure “dynamic stiffness“
Mechanical loss factor	DIN 53513	0.10	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	7.9	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	4.6	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	230	%	
Tear resistance	Based on DIN ISO 34-1	20.0	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.6 0.75	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	1241	kPa	Compressive stress at 25 % deformation test specimen h = 25 mm
Rebound elasticity	Based on DIN EN ISO 8307	58	%	dependent on thickness, test specimen h = 25 mm
Force reduction	DIN EN 14904	35	%	dependent on thickness, test specimen h = 25 mm

N/mm²
2.50
990plus
0.85
810plus
0.60
740plus
0.45
680plus
0.30
570plus
0.22
510plus
0.11
400plus
0.055
300plus
0.042
270plus
0.028
220plus
0.018
190plus
0.011
150plus
0

Load Ranges



Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocity of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 250 mm x 250 mm.

Vibration Isolation

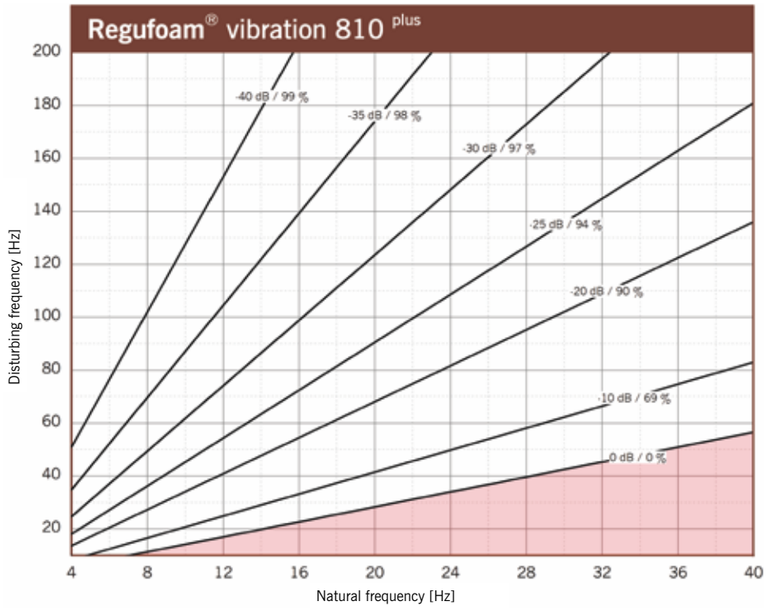
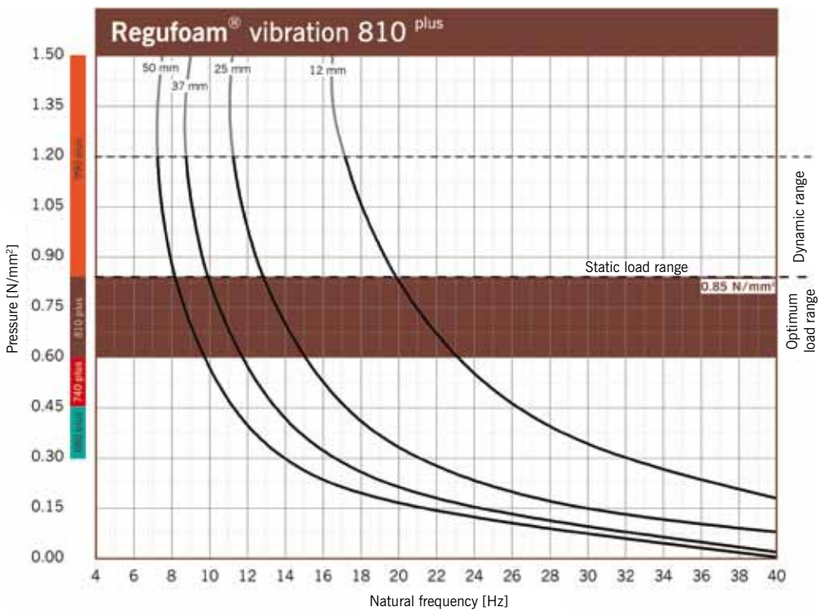


Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regufoam® vibration 810 plus**. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

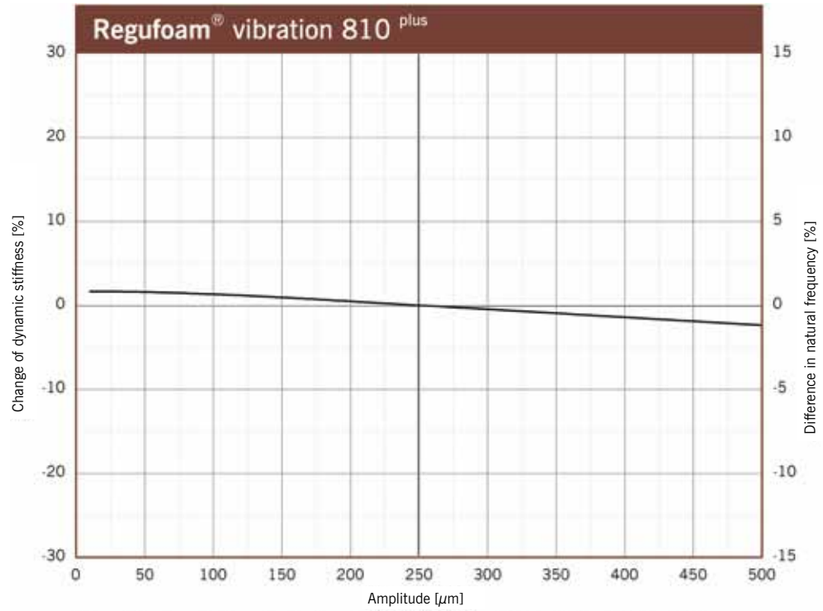
Natural Frequency



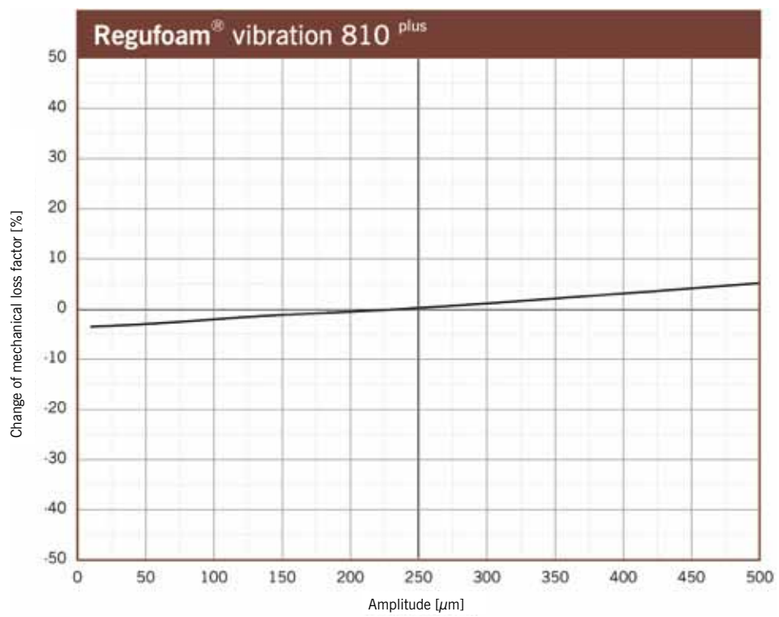
Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regufoam® vibration 810 plus** on a rigid base. Dimensions of test specimens 250 mm x 250 mm.

Regufoam® vibration 810 plus 2.11

Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation. Sinusoidal excitation at a constant mean load of 0.85 N/mm², dimensions of the specimens 250 mm x 250 mm x 25 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.85 N/mm², dimensions of the specimens 250 mm x 250 mm x 25 mm.

Modulus of Elasticity

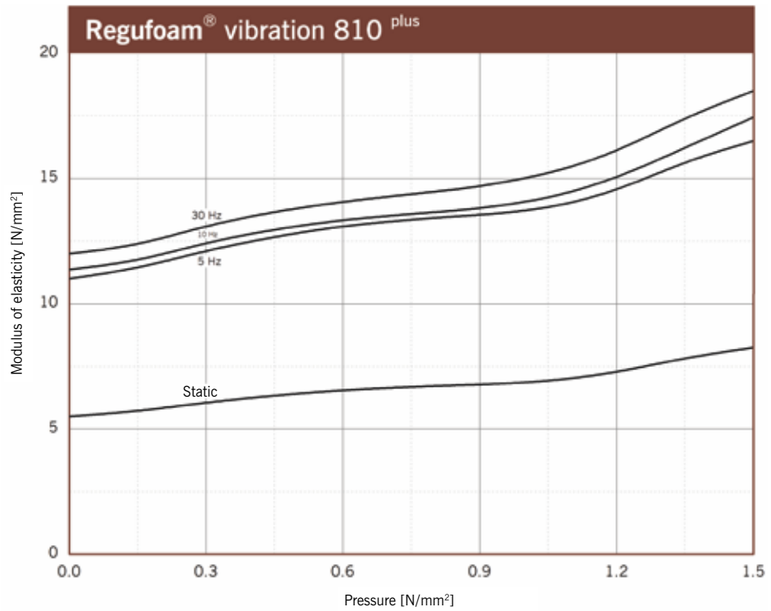


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.10 mm. Dimensions of specimens 250 mm x 250 mm x 25 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

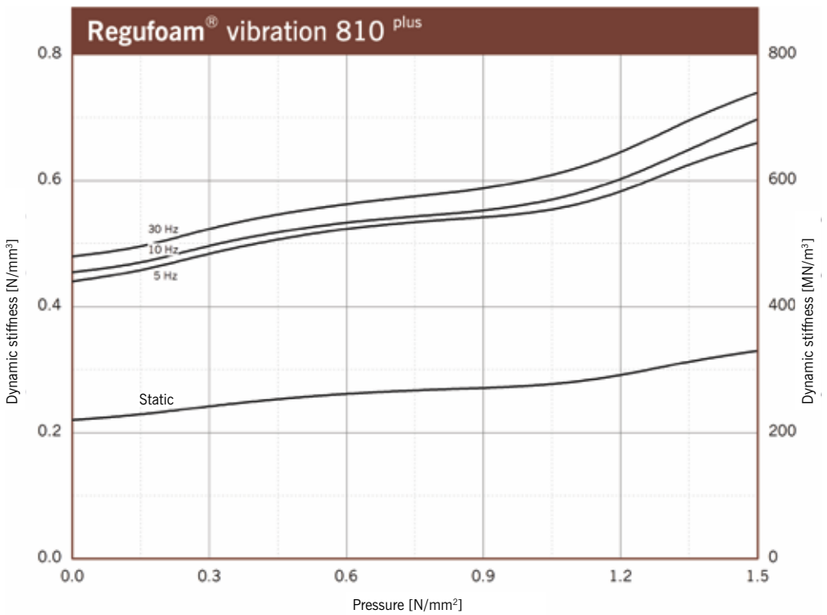
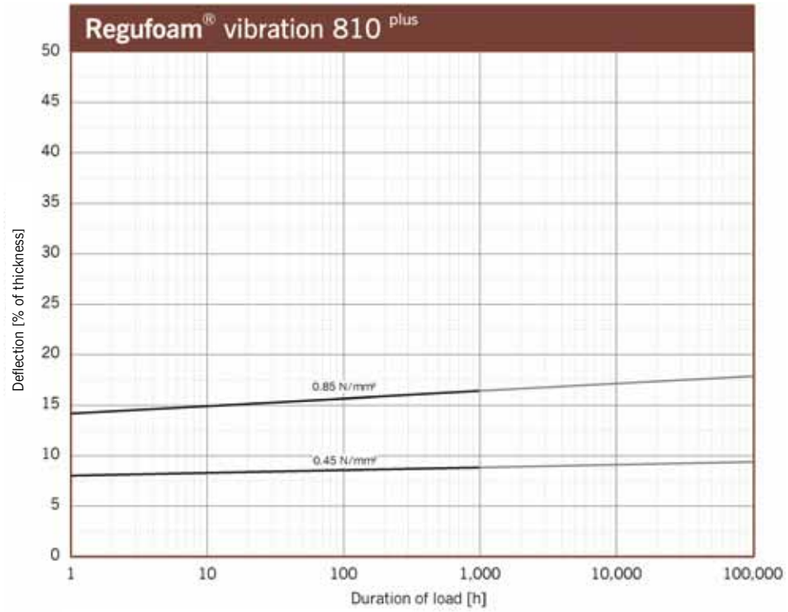


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load an and amplitude of ± 0.10 mm. Dimensions of specimens 250 mm x 250 mm x 25 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regufoam® vibration 810 plus 2.11

Long-Term Creep Test



Dimensions of specimens 250 mm x 250 mm x 50 mm

Exclusion of Liability

Technical services and offers based on these are subject to our General Terms and Conditions of sale, a copy of which can be found on our website www.bsw-vibration-technology.com. Special attention should be paid to paragraphs 4 and 5. In so far, please be advised as follows: Our expertise is the development and manufacturing of products. With our recommendation we can only assist you in selecting a product that is suitable for your demand. However, we cannot act as your architect or consulting expert. This would only be possible subject to a separately concluded service contract that we would have to bill you for. Such contracts are not part of our scope of supply and services. Hence, our recommendation does not lay claim for its correctness. Guarantees do only apply to the technical properties of the material supplied. All given values are approximate values.

Contact: Steffen Blecher, Phone: +49 2751 803-126 • s.blecher@berleburger.de;
Florian Sassmannshausen, Phone: +49 2751 803-230 • f.sassmannshausen@berleburger.de •
Downloads at www.bsw-vibration-technology.com

BSW

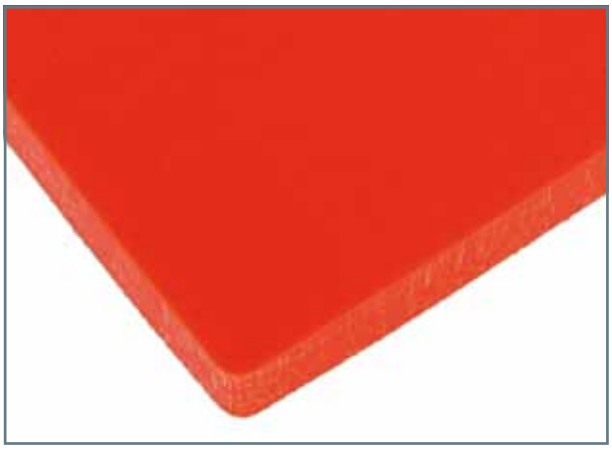
Regufoam® vibration 990 plus

2.12

Standard forms of delivery, ex warehouse
Plates
Thickness: 12 and 25 mm, special thicknesses on request
Length: 1,500 mm, special lengths available
Width: 1,000 mm

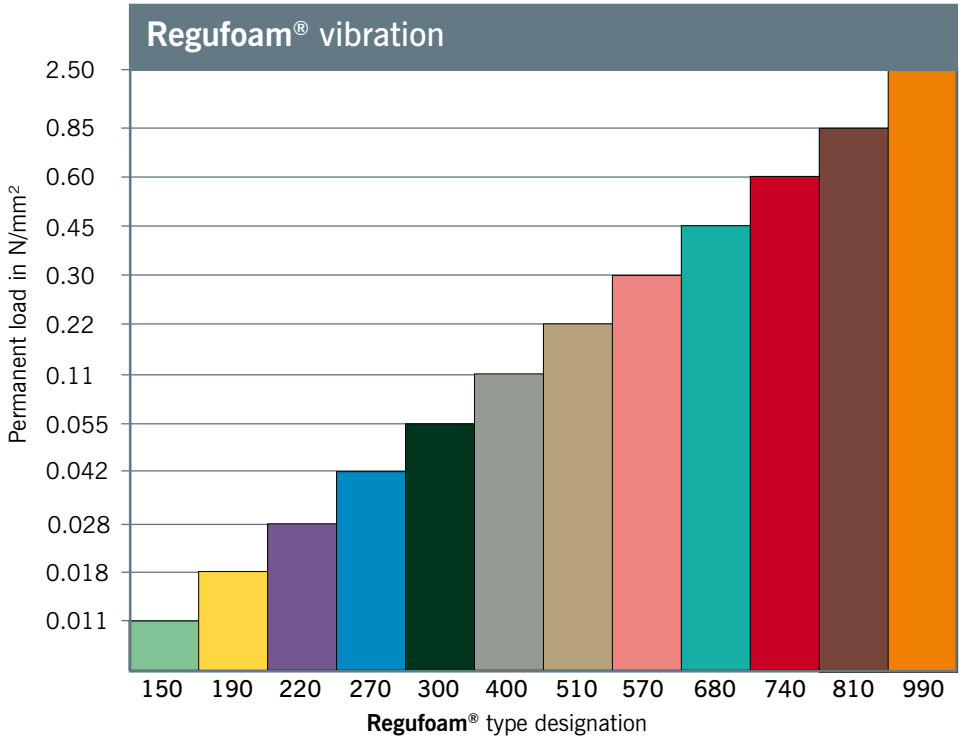
Stripping/smaller sizes
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

Continuous static load
2.5 N/mm²
Continuous and variable loads/operating load range
0 to 3.5 N/mm²
Peak loads (rare, short-term loads)
up to 8.0 N/mm²

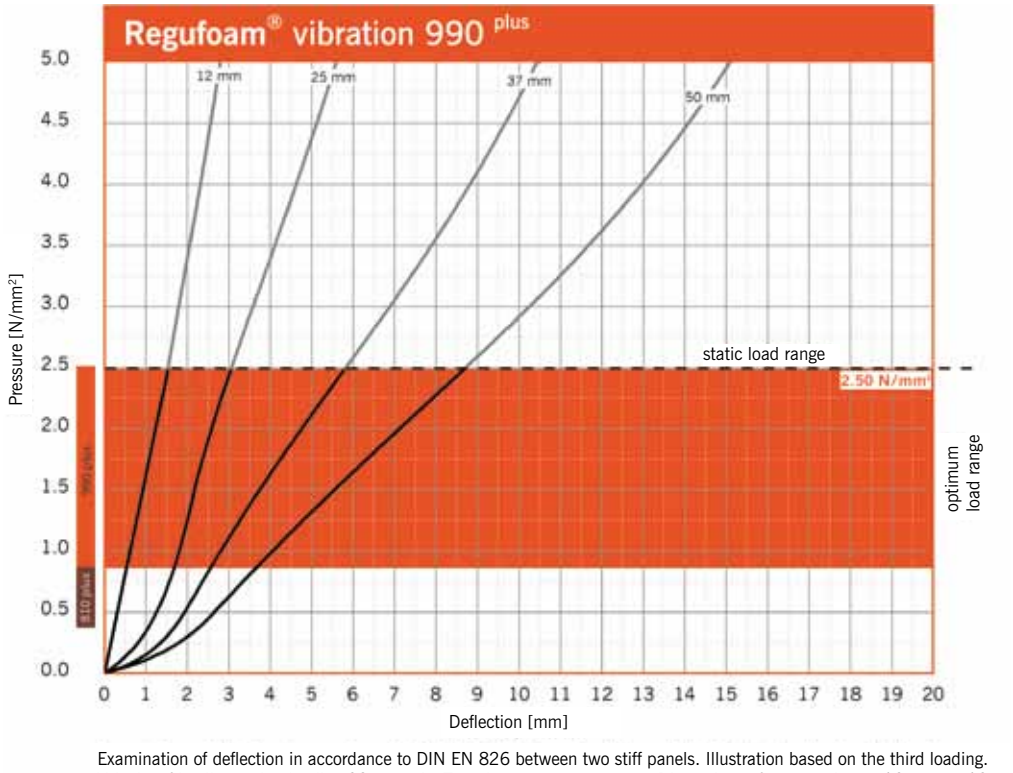


Static modulus of elasticity	Based on EN 826	20.0 - 78.0	N/mm²	Tangential modulus, see figure “Modulus of elasticity”
Dynamic modulus of elasticity	Based on DIN 53513	41.0 - 160.0	N/mm²	Depending on frequency, load and thickness, see figure “dynamic stiffness“
Mechanical loss factor	DIN 53513	0.09	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	8.6	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	6.9	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	190	%	
Tear resistance	Based on DIN ISO 34-1	34.5	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.5 0.6	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	3640	kPa	Compressive stress at 25 % deformation test specimen h = 25 mm
Rebound elasticity	Based on DIN EN ISO 8307	55	%	dependent on thickness, test specimen h = 25 mm
Force reduction	DIN EN 14904	20	%	dependent on thickness, test specimen h = 25 mm

Load Ranges



Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocity of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 125 mm x 125 mm.

Vibration Isolation

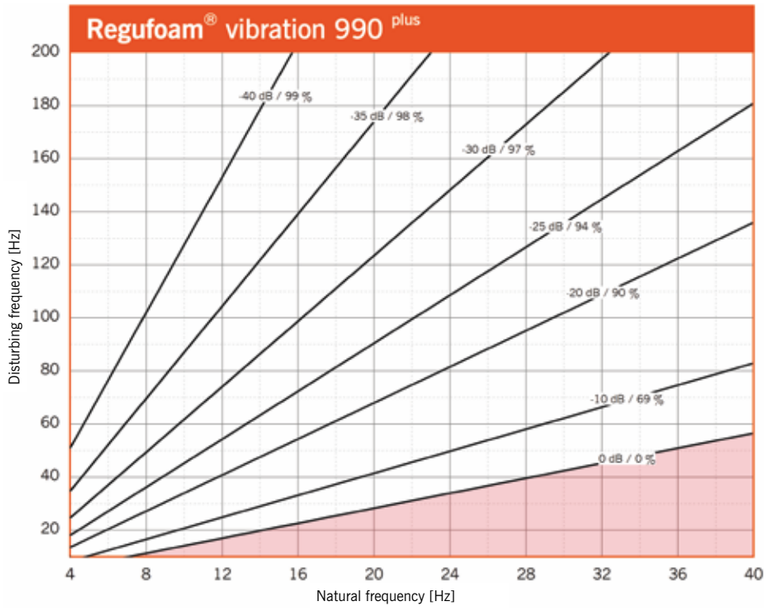
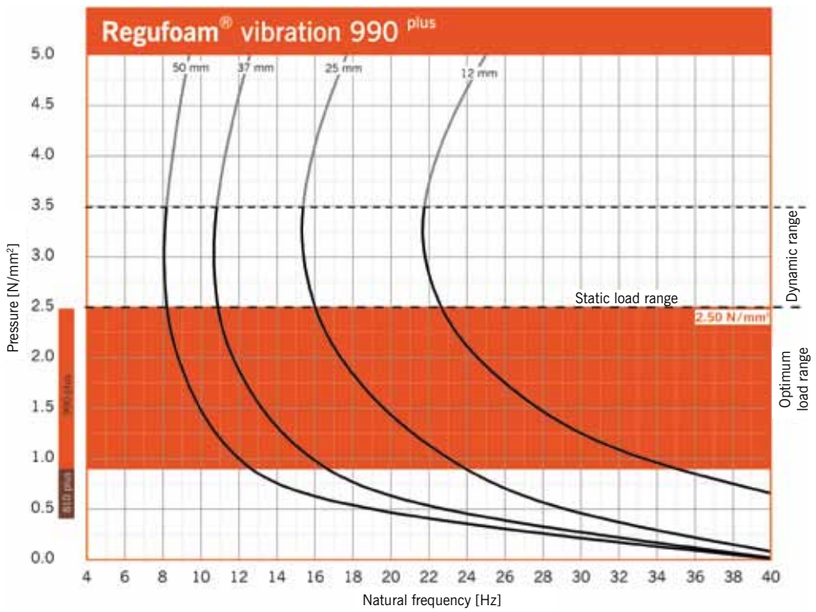


Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regufoam® vibration 990 plus**. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

Natural Frequency



Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regufoam® vibration 990 plus** on a rigid base. Dimensions of test specimens 125 mm x 125 mm.

Regufoam® vibration 990 plus 2.12

Influence of Amplitude

In order to get information of changes in mechanical loss or dynamic stiffness due to changes in amplitudes please ask technical staff of BSW.

Modulus of Elasticity

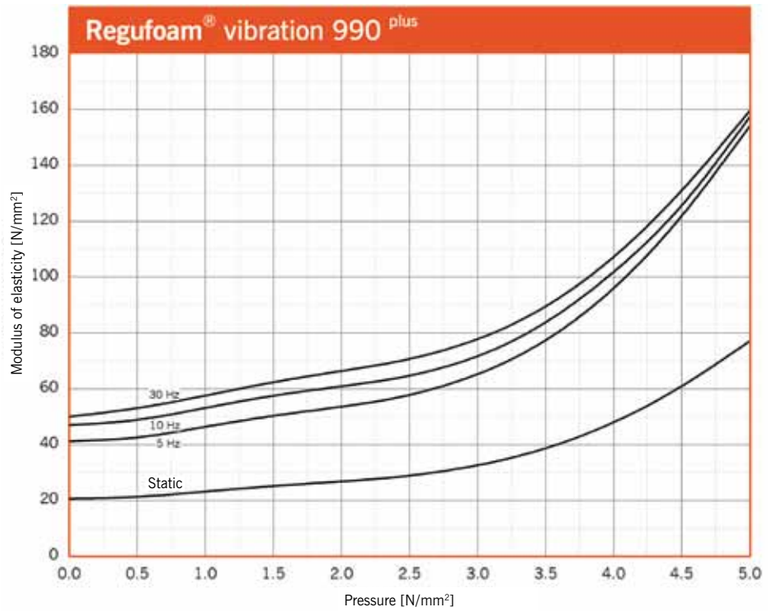


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.10 mm. Dimensions of specimens 125 mm x 125 mm x 25 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

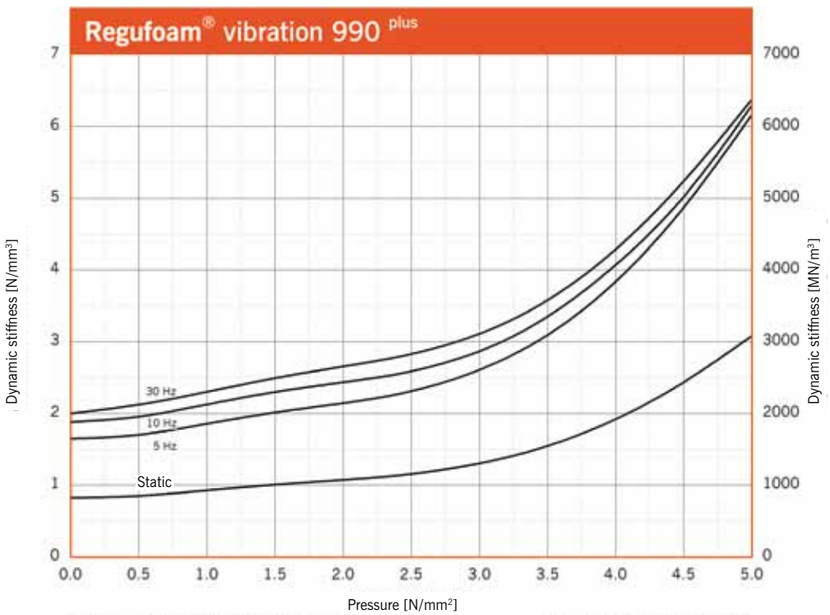
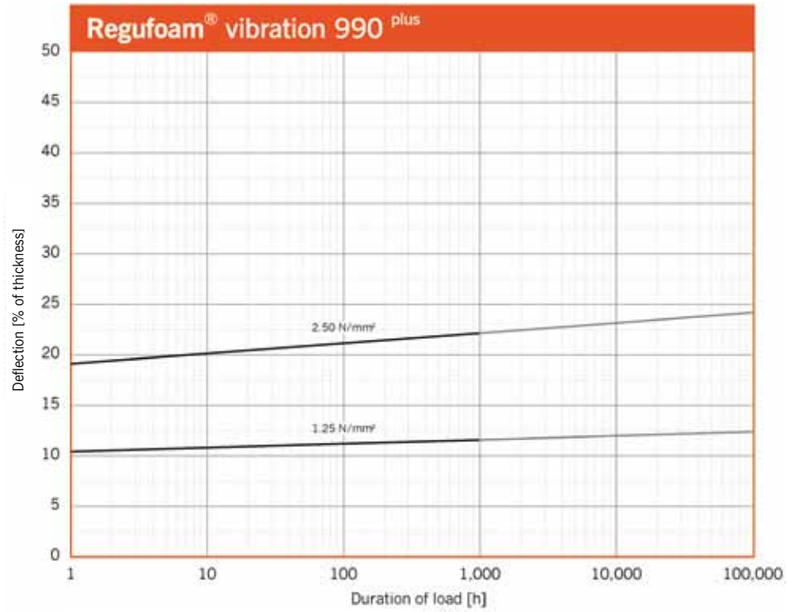


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load an and amplitude of ± 0.10 mm. Dimensions of specimens 125 mm x 125 mm x 25 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regufoam® vibration 990 plus 2.12

Long-Term Creep Test



Dimensions of specimens 125 mm x 125 mm x 50 mm

Exclusion of Liability

Technical services and offers based on these are subject to our General Terms and Conditions of sale, a copy of which can be found on our website www.bsw-vibration-technology.com. Special attention should be paid to paragraphs 4 and 5. In so far, please be advised as follows: Our expertise is the development and manufacturing of products. With our recommendation we can only assist you in selecting a product that is suitable for your demand. However, we cannot act as your architect or consulting expert. This would only be possible subject to a separately concluded service contract that we would have to bill you for. Such contracts are not part of our scope of supply and services. Hence, our recommendation does not lay claim for its correctness. Guarantees do only apply to the technical properties of the material supplied. All given values are approximate values.

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BSW

on your wavelength

Regupol®

Vibration Isolation Technical Details

Regupol® in:
Palaisquartier Frankfurt, Imtech Arena Hamburg, Mainova Headoffice Frankfurt

BSW

www.bsw-vibration-technology.com

All Tools for the Download

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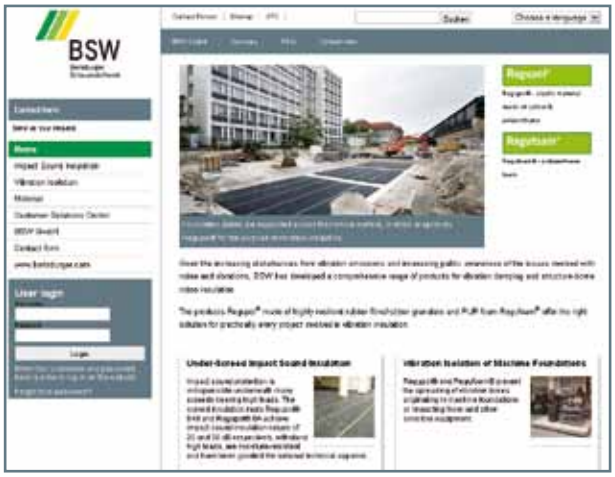
Up to date information is provided on our website and in the PDF versions of this catalogue. The PDF versions are available for download on our website.



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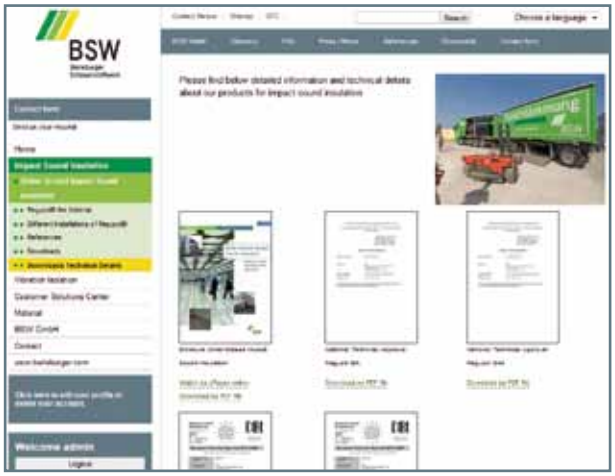

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Regupol® vibration 200

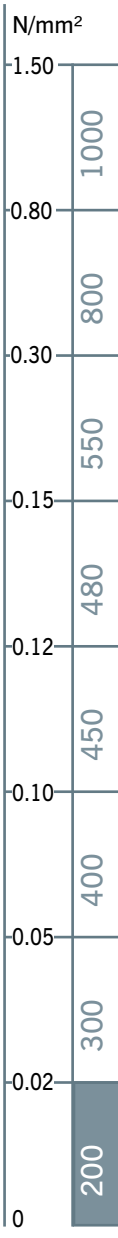
3.1

Standard forms of delivery, ex warehouse
Rolls
Thickness: 17 mm, dimpled
Length: 10,000 mm, special lengths available
Width: 1,250 mm

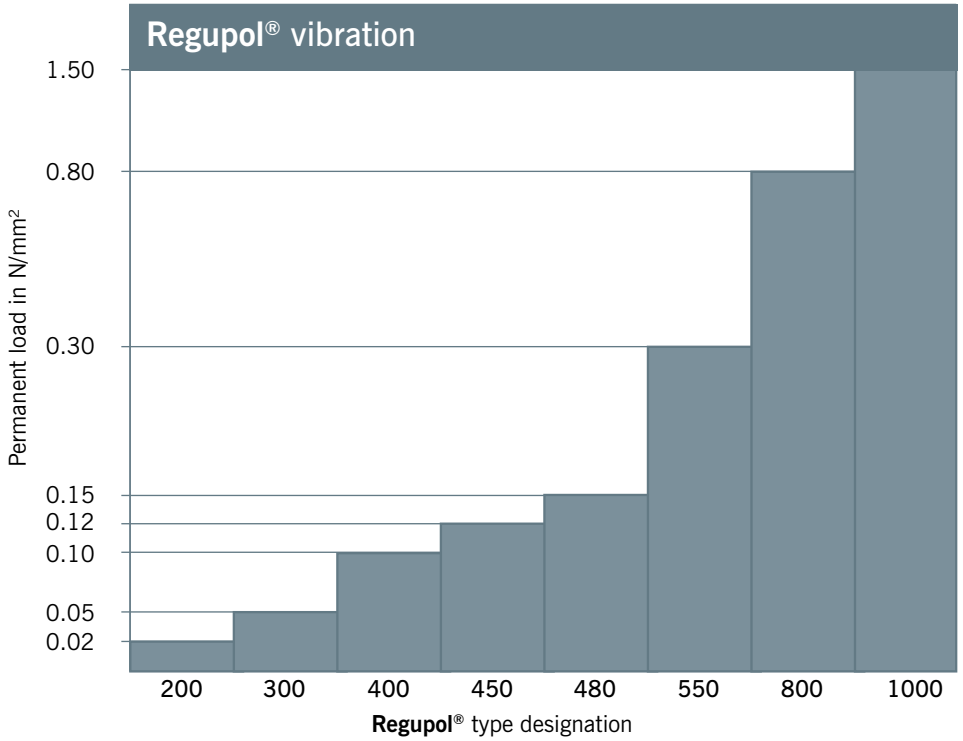
Stripping/Plates
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

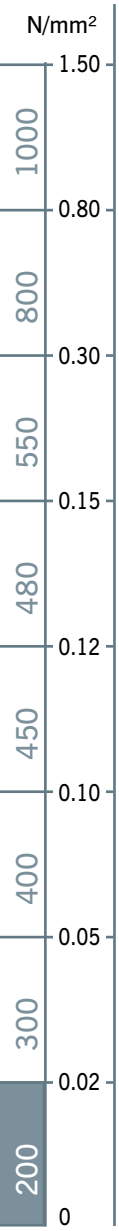
Continuous static load
0.02 N/mm²
Continuous and variable loads/operating load range
0.05 N/mm²

Static modulus of elasticity	Based on EN 826	0.02 - 0.08	N/mm²	Tangential modulus, see figure “Modulus of elasticity”
Dynamic modulus of elasticity	Based on DIN 53513	0.05 - 0.38	N/mm²	Depending on frequency, load and thickness, see figure “dynamic stiffness“
Mechanical loss factor	DIN 53513	0.22	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	3.1	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	0.12	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	40	%	
Tear resistance	Based on DIN ISO 34-1	1.0	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.7 0.8	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	14	kPa	Compressive stress at 25 % deformation
Rebound elasticity	Based on DIN EN ISO 8307	14	%	dependent on thickness, test specimen h = 25 mm
Force reduction	DIN EN 14904	73	%	dependent on thickness, test specimen h = 25 mm

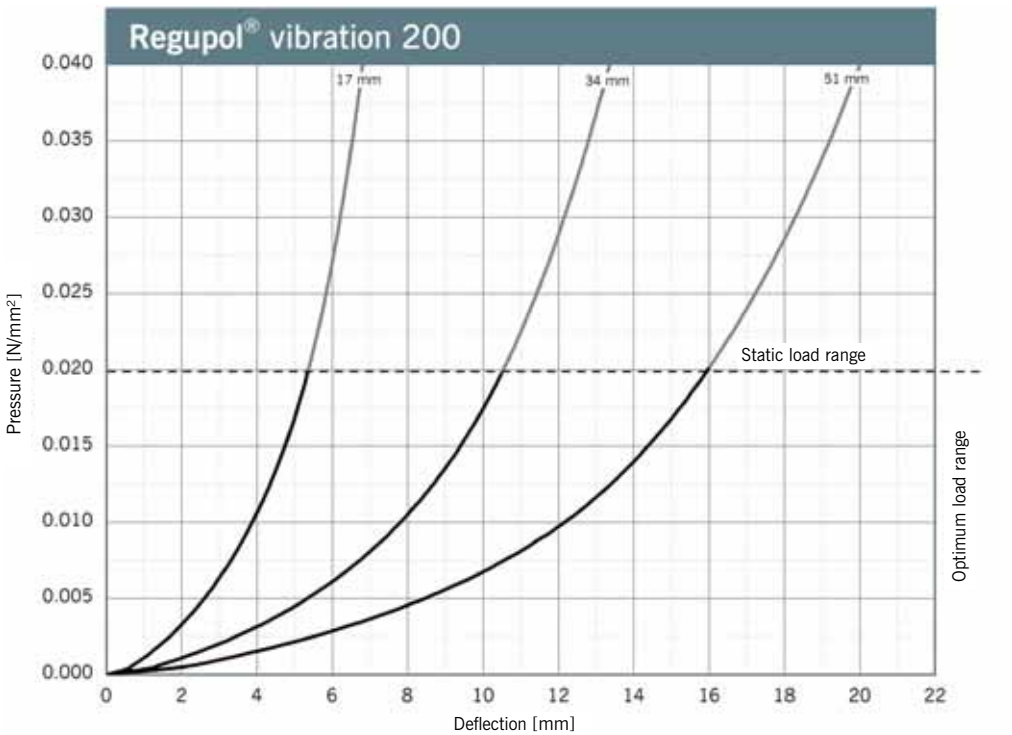


Load Ranges





Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocitiy of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 300 mm x 300 mm.

Vibration Isolation

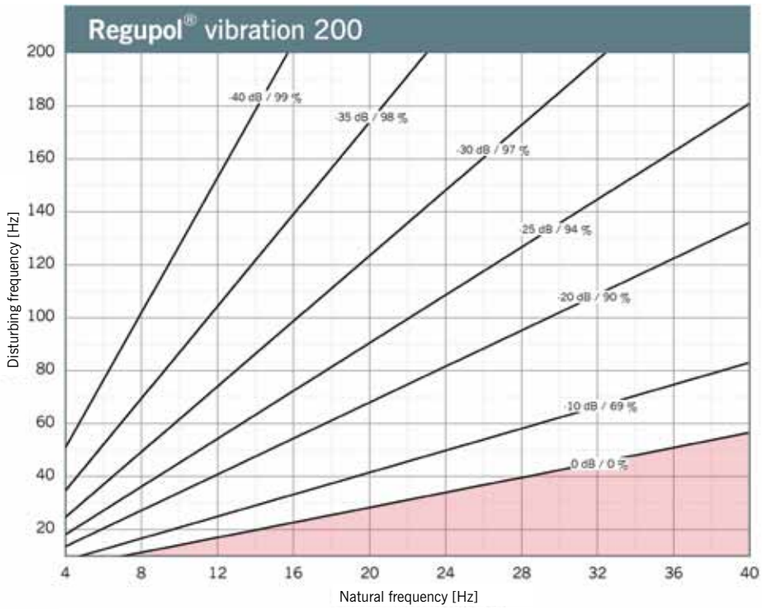
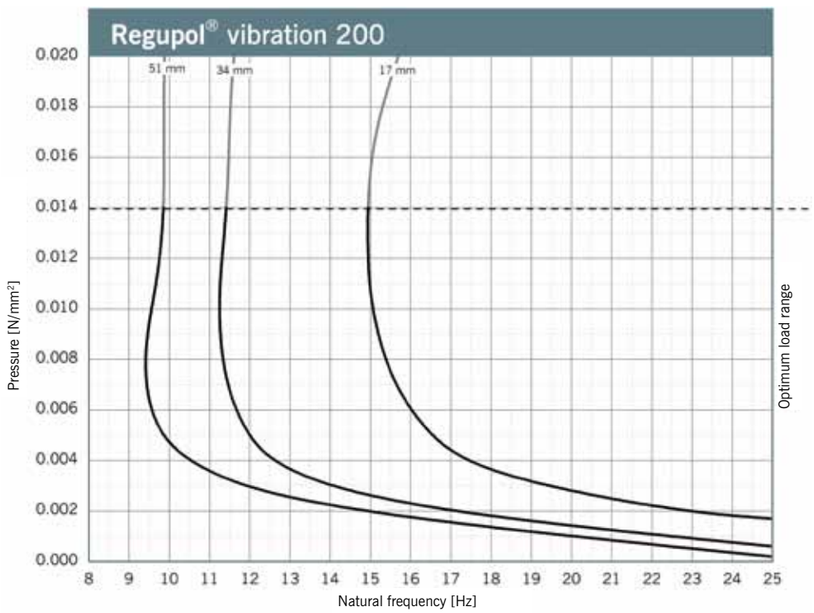


Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regupol® vibration 200**. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

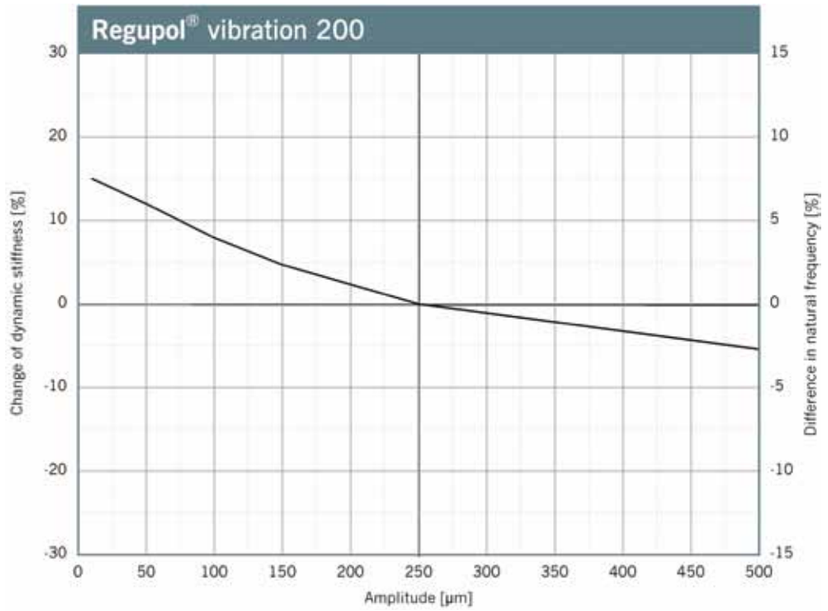
Natural Frequency



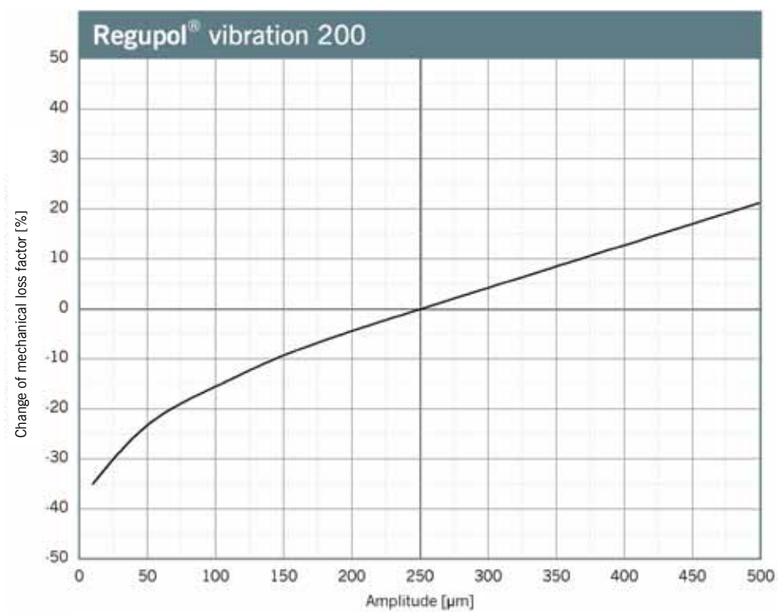
Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regupol® vibration 200** on a rigid base. Dimensions of test specimens 300 mm x 300 mm.

Regupol® vibration 200 3.1

Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation.
Sinusoidal excitation at a constant mean load of 0.011 N/mm², dimensions of the specimens 300 mm x 300 mm x 51 mm.
Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.011 N/mm², dimensions of the specimens 300 mm x 300 mm x 51 mm.

Modulus of Elasticity

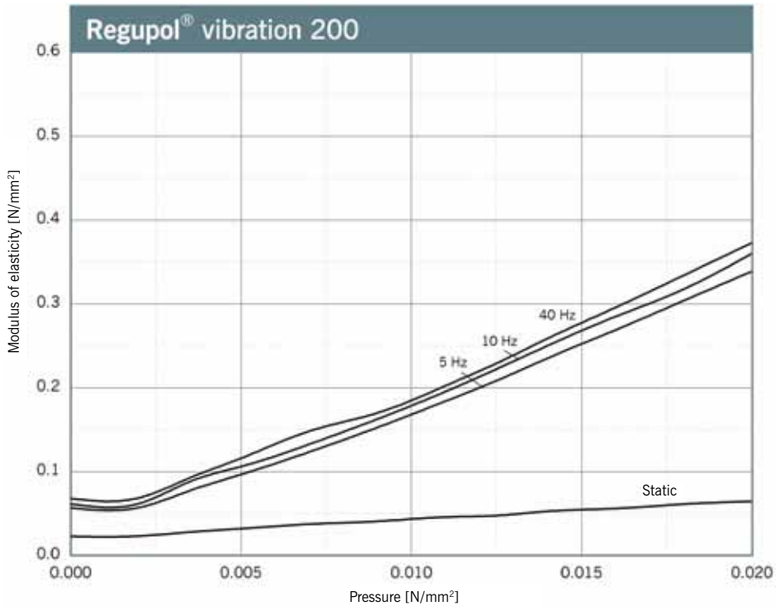


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 34 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

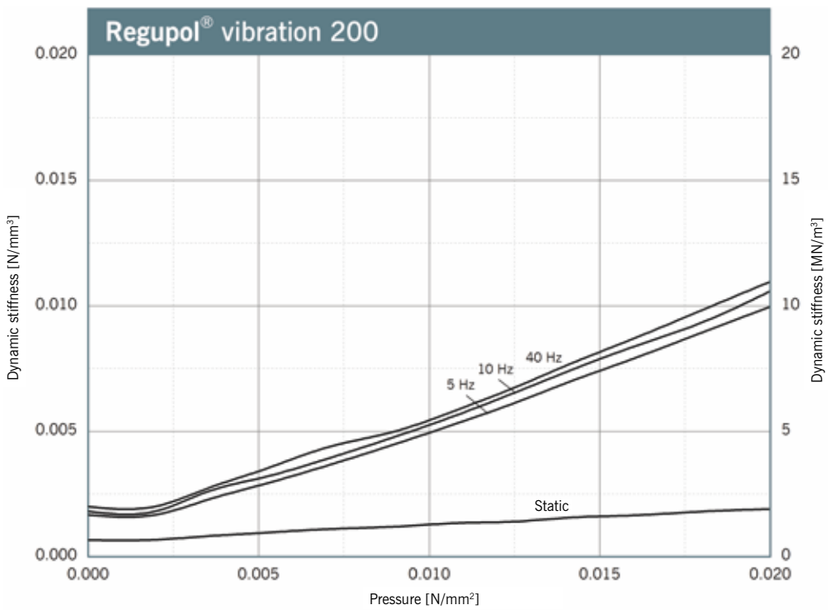
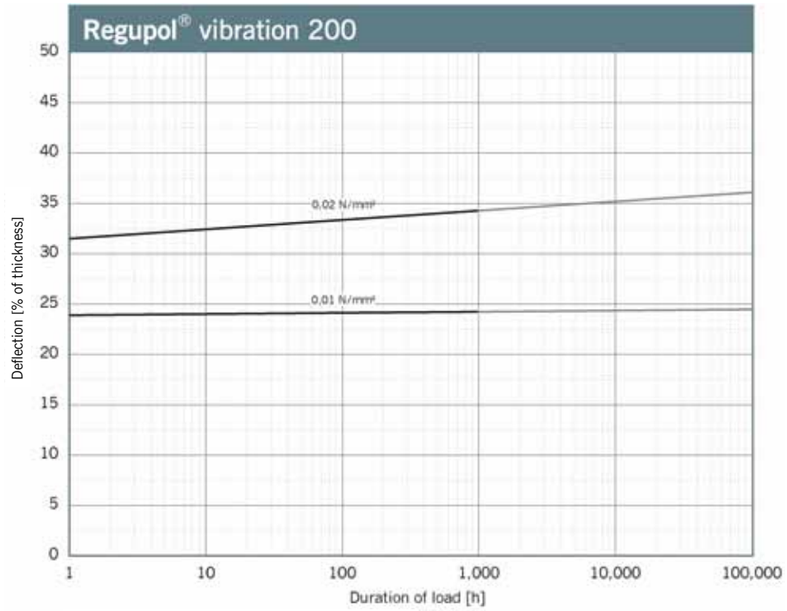


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 34 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regupol® vibration 200 3.1

Long-Term Creep Test



Dimensions of specimens 300 mm x 300 mm x 51 mm

Exclusion of Liability

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Downloads at www.bsw-vibration-technology.com

BSW

Regupol® vibration 300

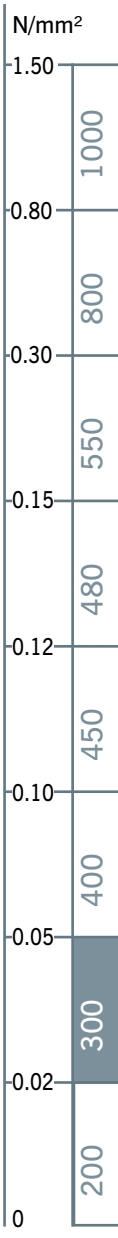
3.2

Standard forms of delivery, ex warehouse
Rolls
Thickness: 17 mm, dimpled
Length: 10,000 mm, special lengths available
Width: 1,250 mm

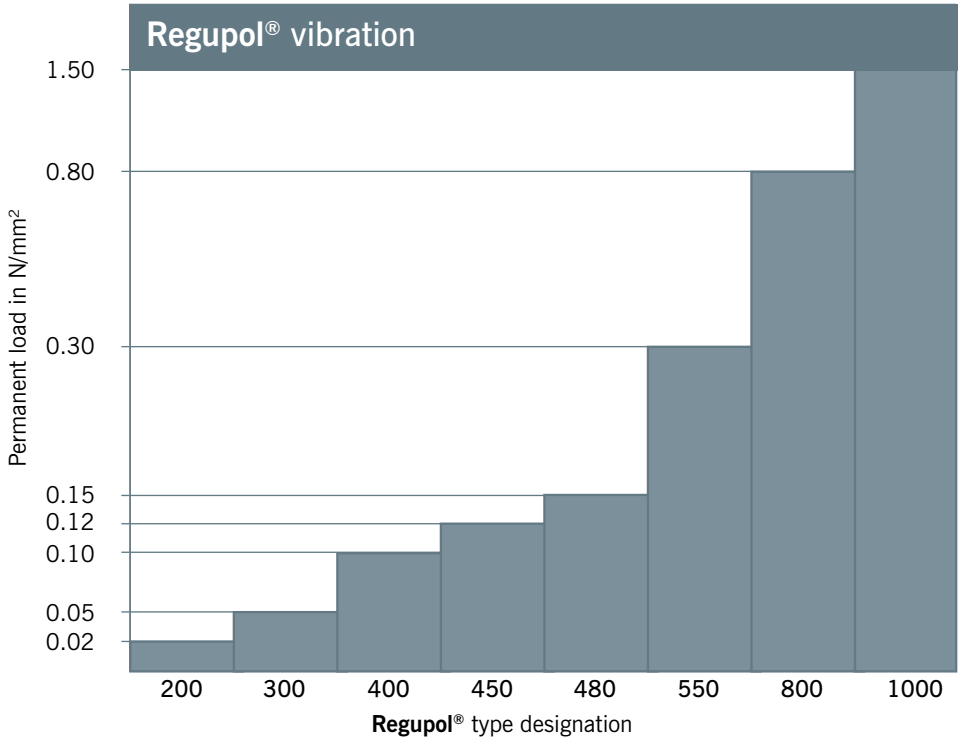
Stripping/Plates
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

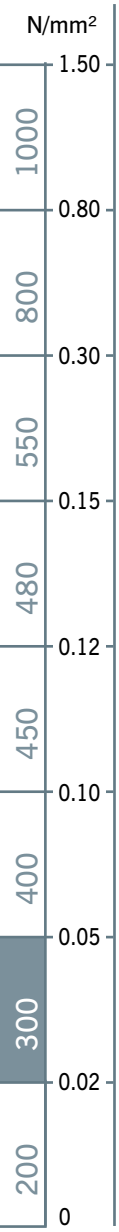
Continuous static load
0.05 N/mm²
Continuous and variable loads/operating load range
0.08 N/mm²

Static modulus of elasticity	Based on EN 826	0.1 - 0.2	N/mm²	Tangential modulus, see figure “Modulus of elasticity”
Dynamic modulus of elasticity	Based on DIN 53513	0.2 - 1.4	N/mm²	Depending on frequency, load and thickness, see figure “dynamic stiffness“
Mechanical loss factor	DIN 53513	0.18	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	1.6	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	0.30	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	55	%	
Tear resistance	Based on DIN ISO 34-1	2.1	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.7 0.8	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	50	kPa	Compressive stress at 25 % deformation test specimen h = 51 mm
Rebound elasticity	Based on DIN EN ISO 8307	10	%	dependent on thickness, test specimen h = 51 mm
Force reduction	DIN EN 14904	73	%	dependent on thickness, test specimen h = 51 mm
Ozone resistance	DIN EN ISO 17025	Cracking stage 0	[-]	

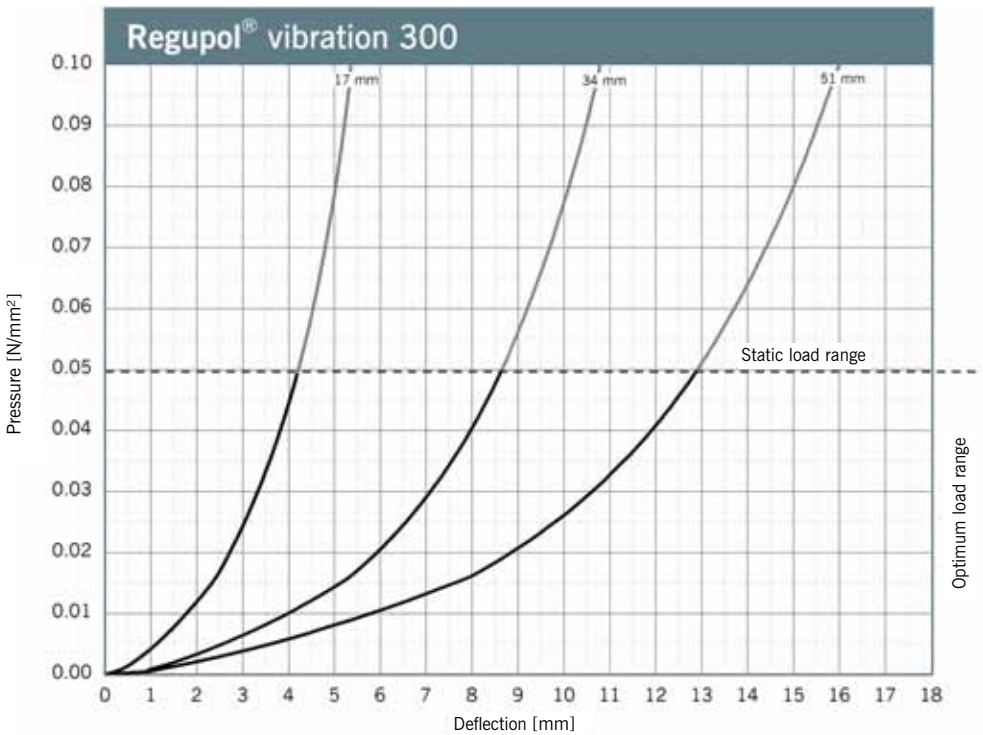


Load Ranges





Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocitiy of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 300 mm x 300 mm.

Vibration Isolation

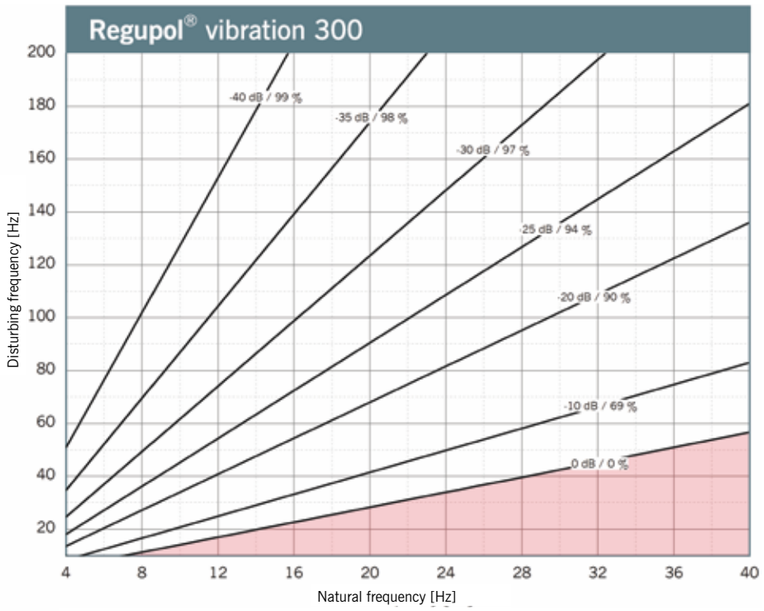
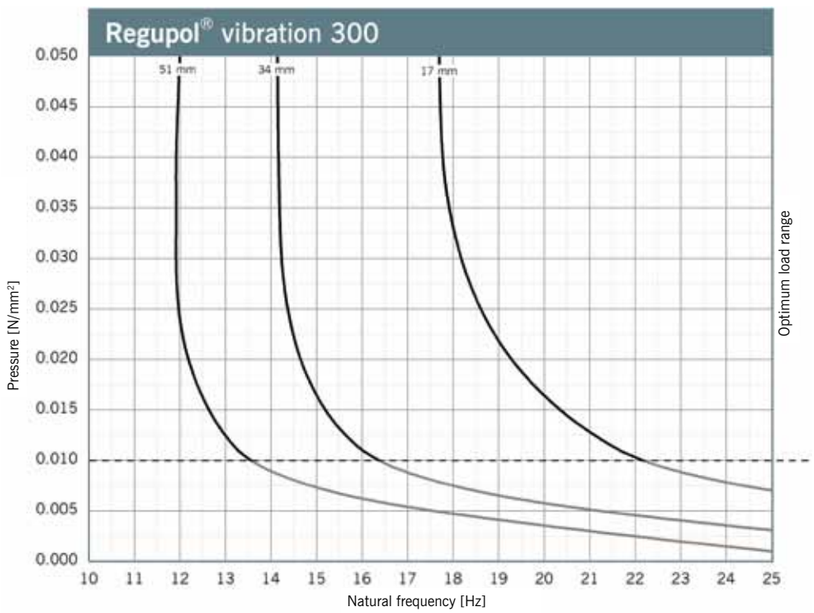


Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regupol® vibration 300**. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

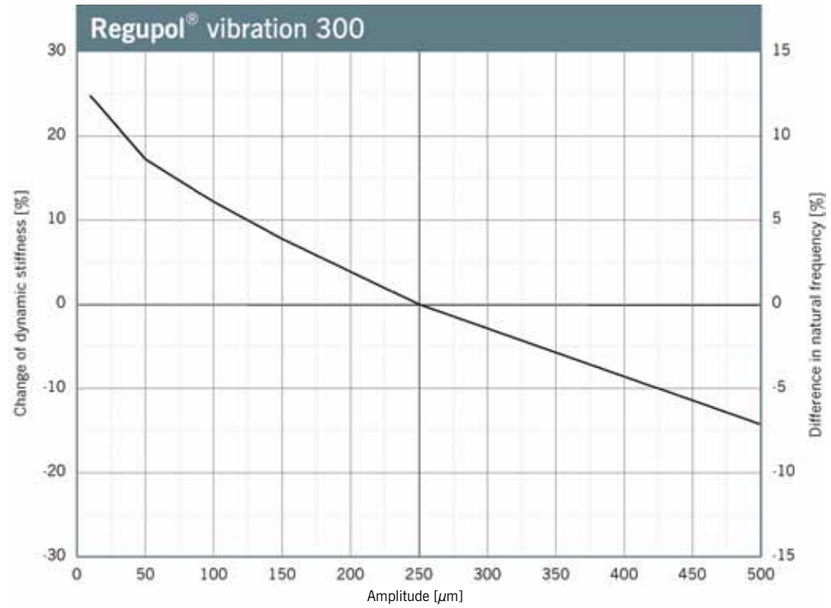
Natural Frequency



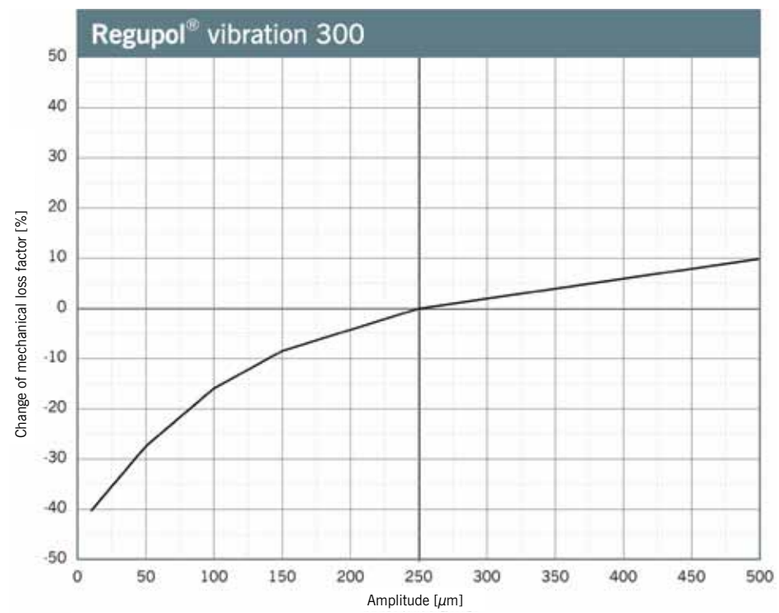
Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regupol® vibration 300** on a rigid base. Dimensions of test specimens 300 mm x 300 mm.

Regupol® vibration 300 3.2

Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation. Sinusoidal excitation at a constant mean load of 0.05 N/mm², dimensions of the specimens 300 mm x 300 mm x 51 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.05 N/mm², dimensions of the specimens 300 mm x 300 mm x 51 mm.

Modulus of Elasticity

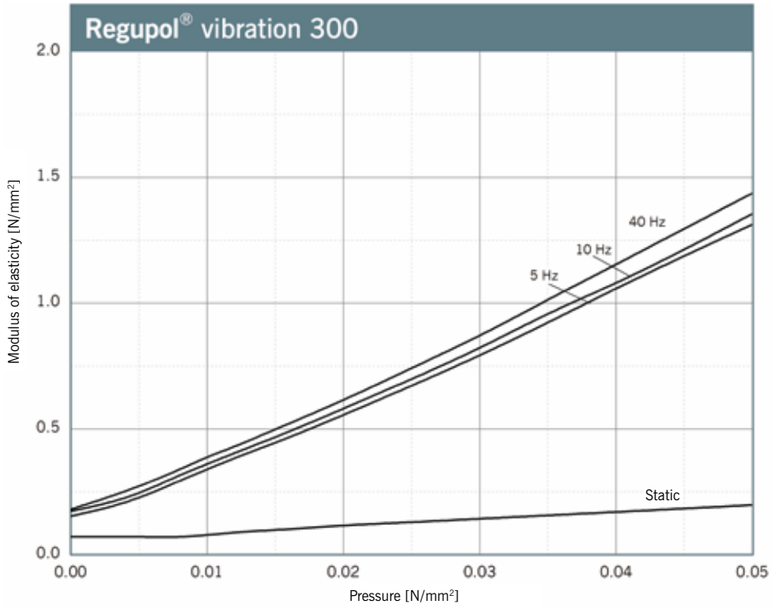


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 34 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

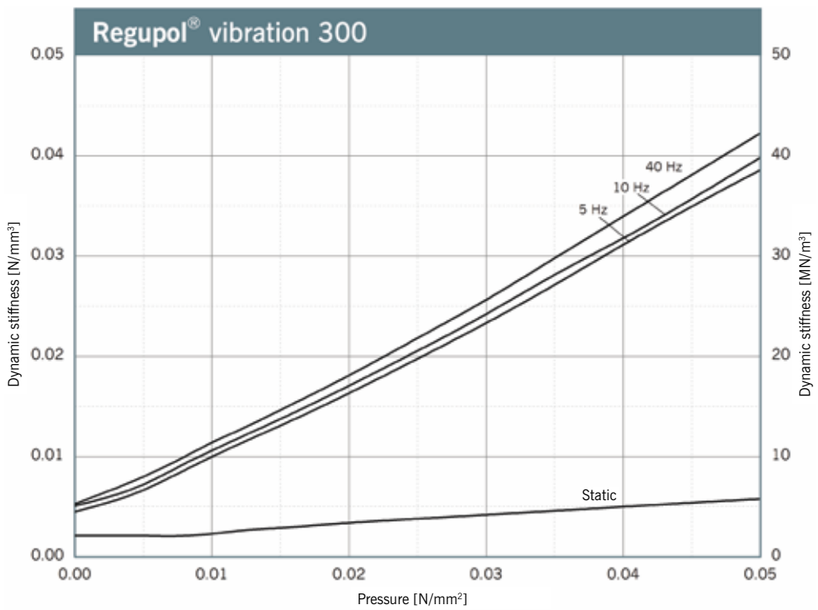
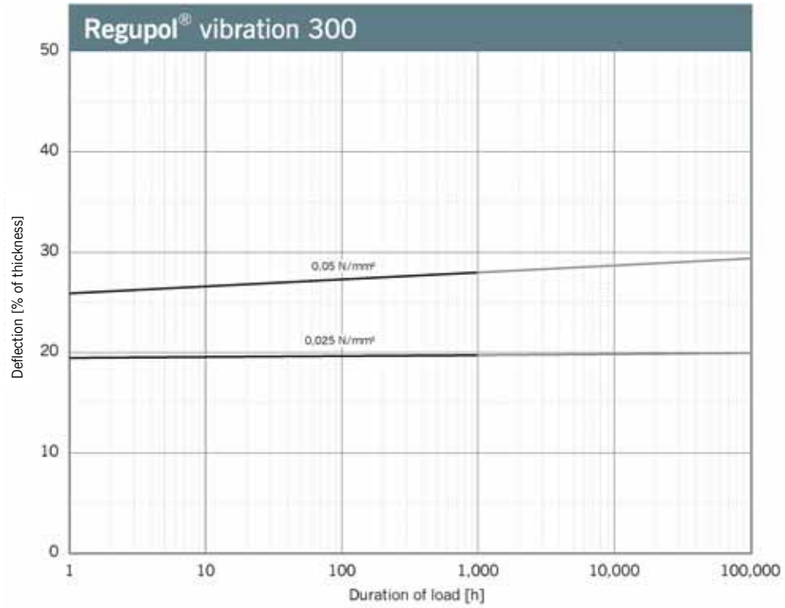


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 34 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regupol® vibration 300 3.2

Long-Term Creep Test



Dimensions of specimens 300 mm x 300 mm x 51 mm

Exclusion of Liability

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Downloads at www.bsw-vibration-technology.com

BSW

Regupol® vibration 400

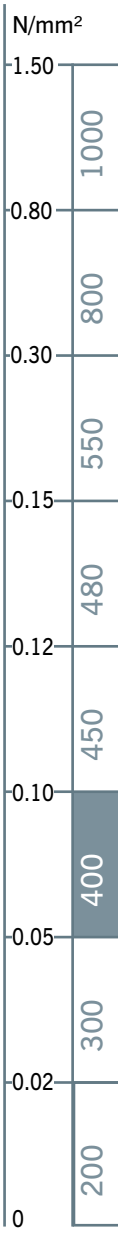
3.3

Standard forms of delivery, ex warehouse
Rolls
Thickness: 15 mm, dimpled
Length: 10,000 mm, special lengths available
Width: 1,250 mm

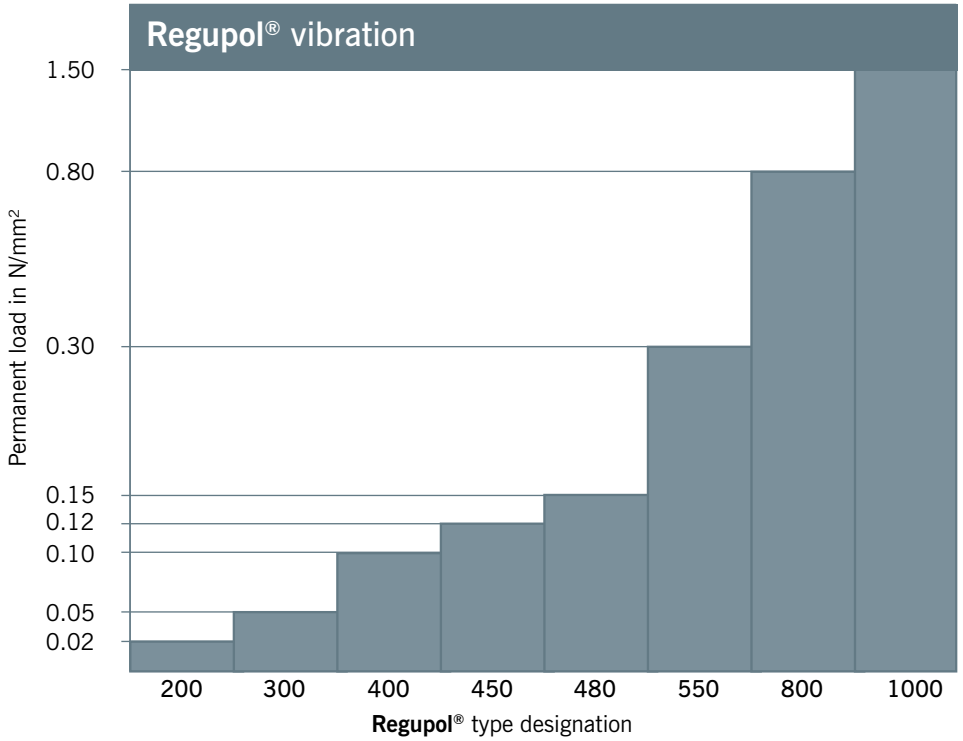
Stripping/Plates
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

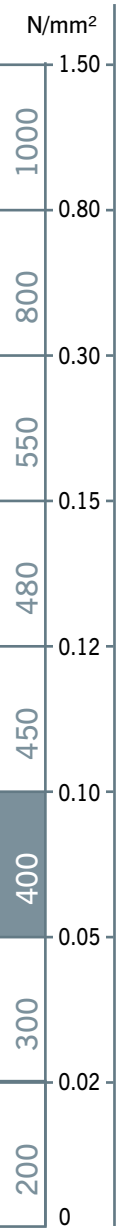
Continuous static load
0.10 N/mm²
Continuous and variable loads/operating load range
0.15 N/mm²

Static modulus of elasticity	Based on EN 826	0.3 - 0.55	N/mm²	Tangential modulus, see figure “Modulus of elasticity”
Dynamic modulus of elasticity	Based on DIN 53513	0.9 - 2.4	N/mm²	Depending on frequency, load and thickness, see figure “dynamic stiffness“
Mechanical loss factor	DIN 53513	0.17	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	2.1	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	0.34	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	55	%	
Tear resistance	Based on DIN ISO 34-1	3.2	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.7 0.8	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	180	kPa	Compressive stress at 25 % deformation test specimen h = 60 mm
Rebound elasticity	Based on DIN EN ISO 8307	22	%	dependent on thickness, test specimen h = 60 mm
Force reduction	DIN EN 14904	73	%	dependent on thickness, test specimen h = 60 mm
Ozone resistance	DIN EN ISO 17025	Cracking stage 0	[-]	

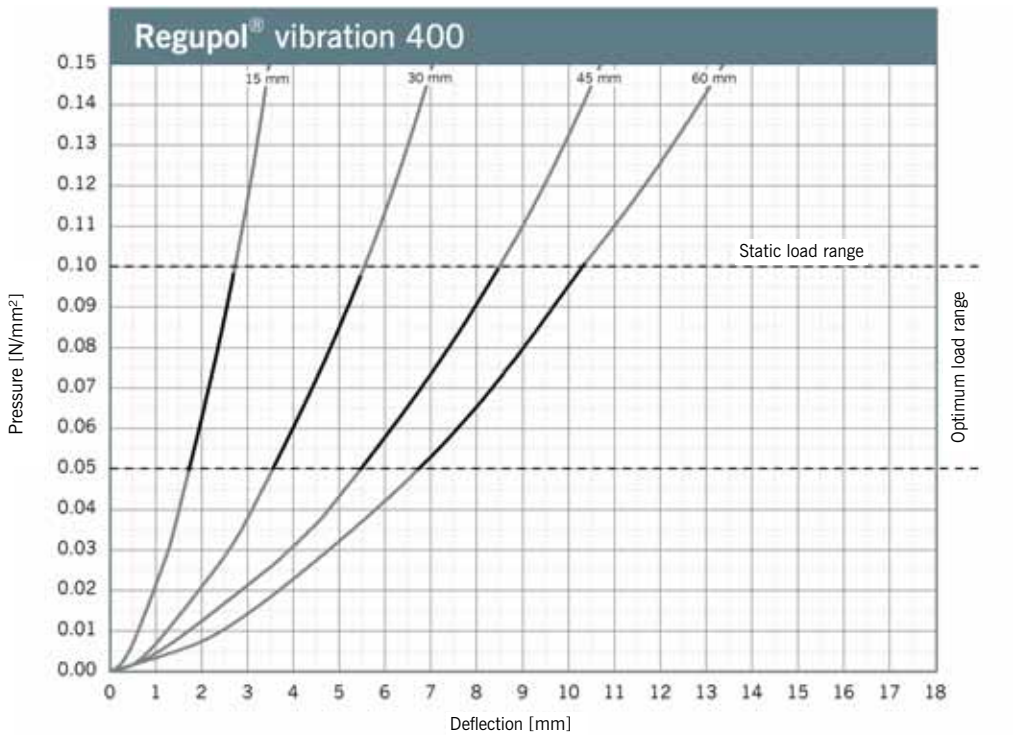


Load Ranges





Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocitiy of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 300 mm x 300 mm.

Vibration Isolation

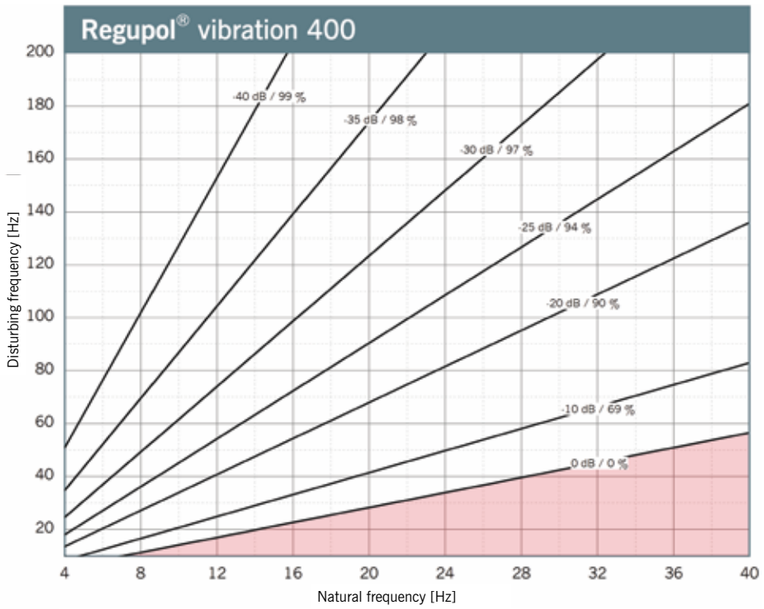
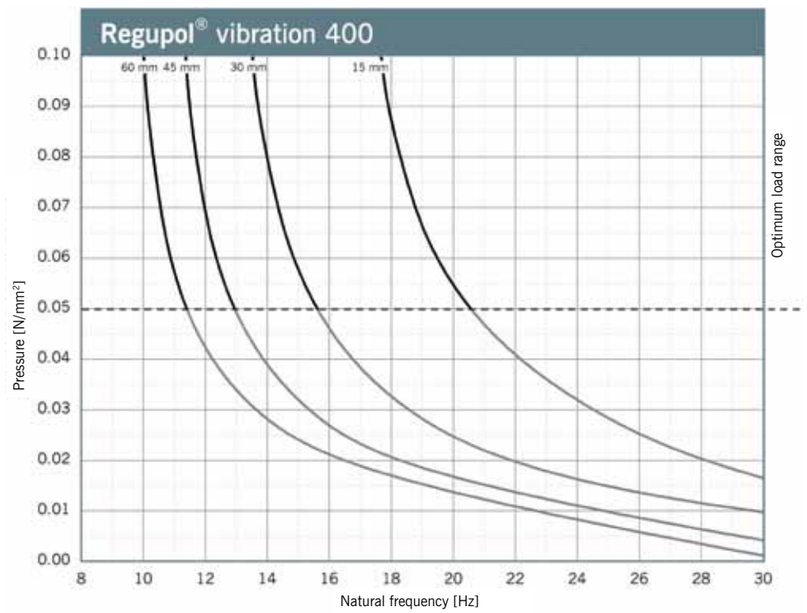


Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regupol® vibration 400**. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

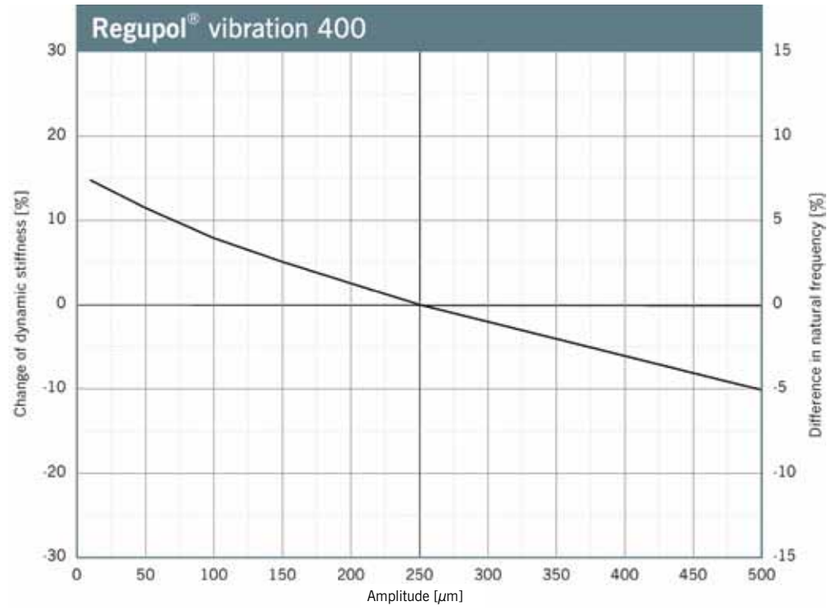
Natural Frequency



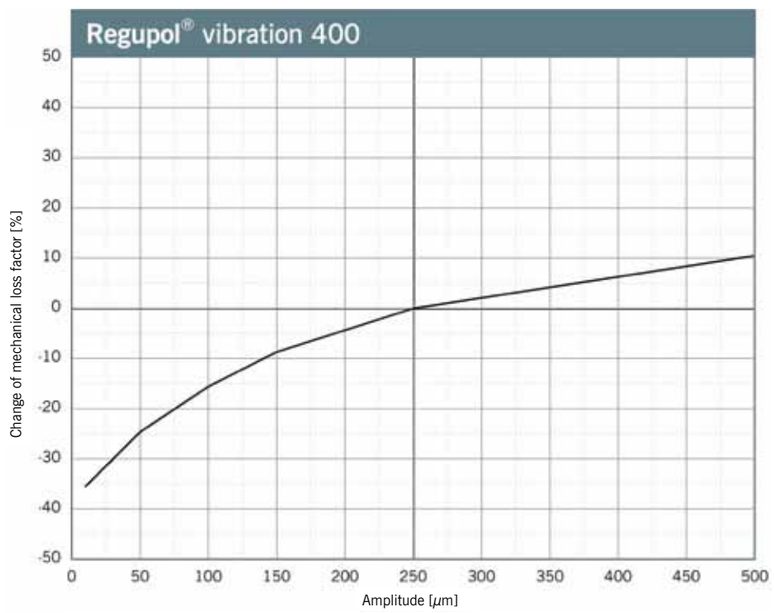
Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regupol® vibration 400** on a rigid base. Dimensions of test specimens 300 mm x 300 mm.

Regupol® vibration 400 3.3

Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation. Sinusoidal excitation at a constant mean load of 0.10 N/mm², dimensions of the specimens 300 mm x 300 mm x 60 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.10 N/mm², dimensions of the specimens 300 mm x 300 mm x 60 mm.

Modulus of Elasticity

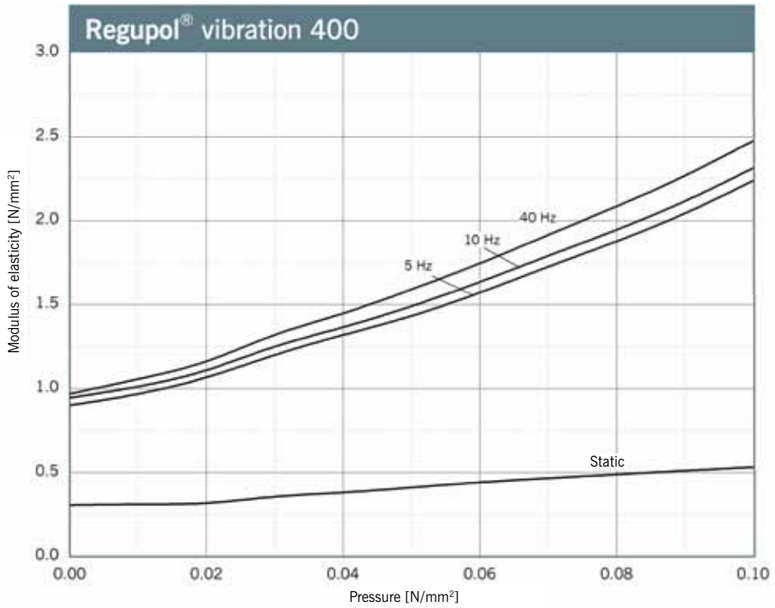


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 45 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

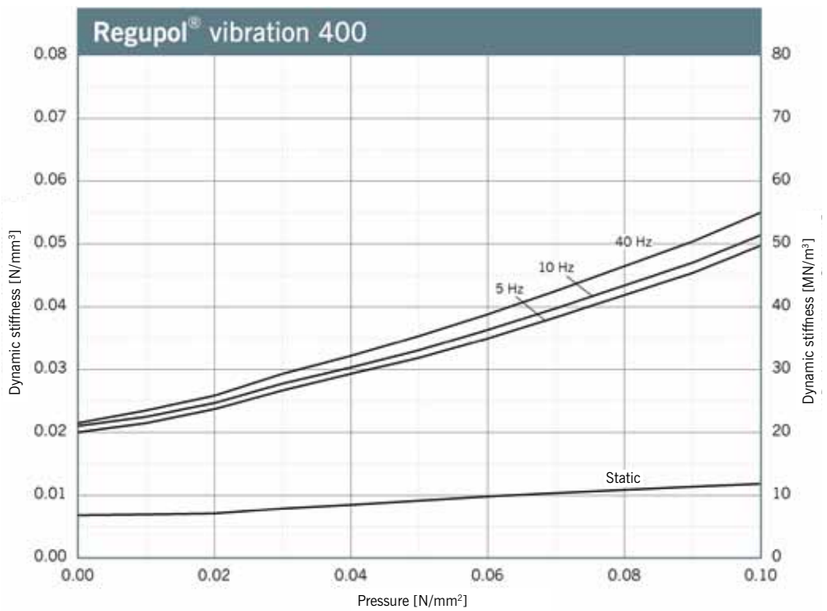
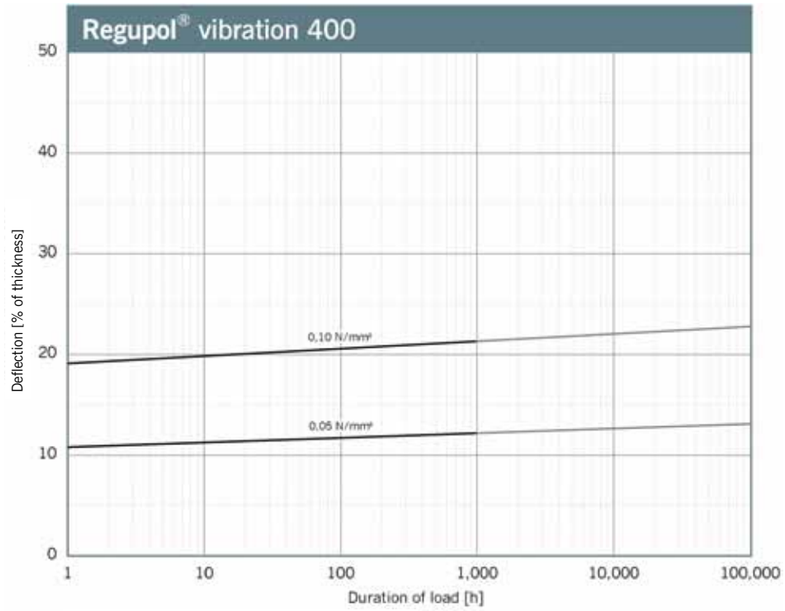


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 45 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regupol® vibration 400 3.3

Long-Term Creep Test



Dimensions of specimens 300 mm x 300 mm x 60 mm

Exclusion of Liability

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BSW

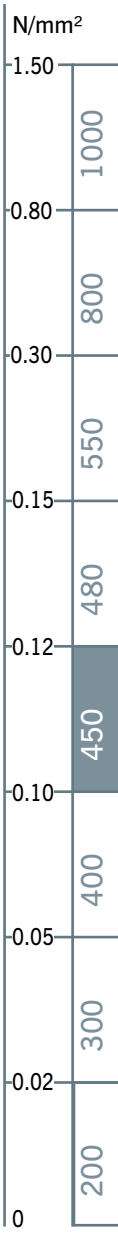
Regupol® vibration 450

Standard forms of delivery, ex warehouse
Plates

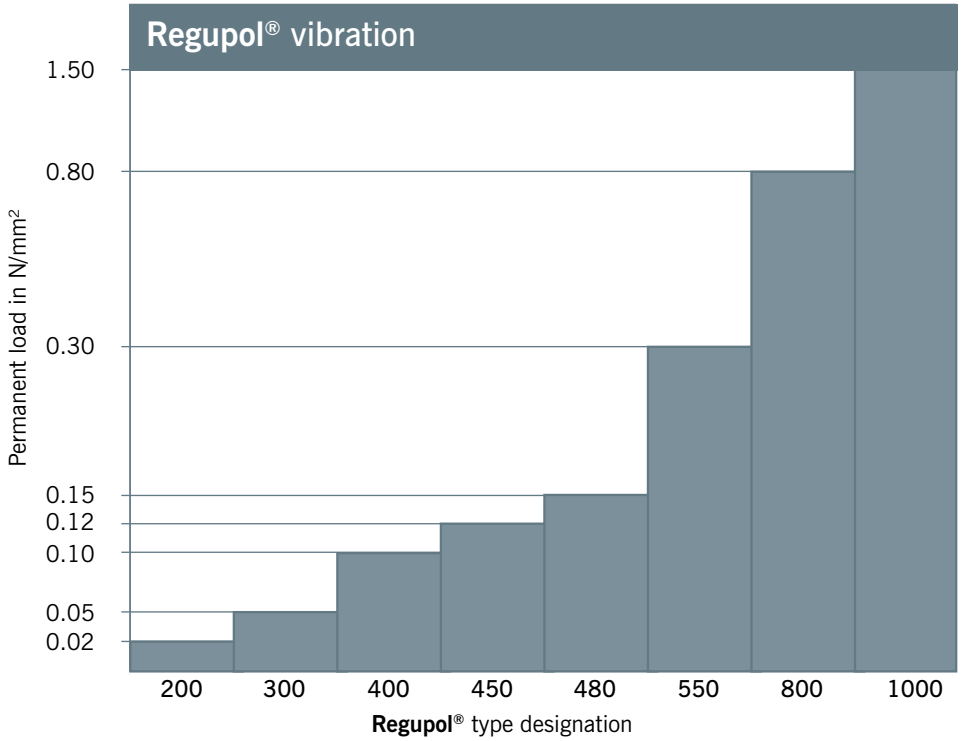
Thickness:	50 mm, special thickness available
Length:	1,000 mm
Width:	500 mm

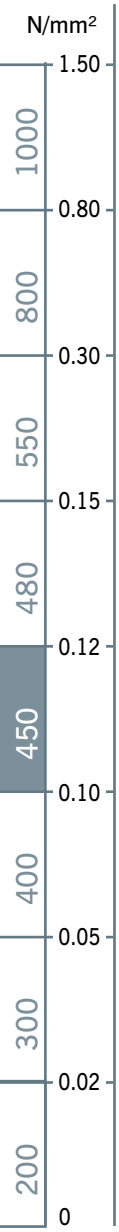
Continuous static load
0.12 N/mm²
Continuous and variable loads/operating load range
0.18 N/mm²

Static modulus of elasticity	Based on EN 826	0.2 - 0.4	N/mm²	Tangential modulus, see figure “Modulus of elasticity”
Dynamic modulus of elasticity	Based on DIN 53513	0.45 - 2.7	N/mm²	Depending on frequency, load and thickness, see figure “dynamic stiffness“
Mechanical loss factor	DIN 53513	0.2	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	4.1	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	0.15	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	40	%	
Tear resistance	Based on DIN ISO 34-1	1.9	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.5 0.6	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	83	kPa	Compressive stress at 25 % deformation test specimen h = 50 mm
Rebound elasticity	Based on DIN EN ISO 8307	42.7	%	dependent on thickness, test specimen h = 50 mm
Force reduction	DIN EN 14904	74	%	dependent on thickness, test specimen h = 50 mm
Ozone resistance	DIN EN ISO 17025	Cracking stage 0	[-]	

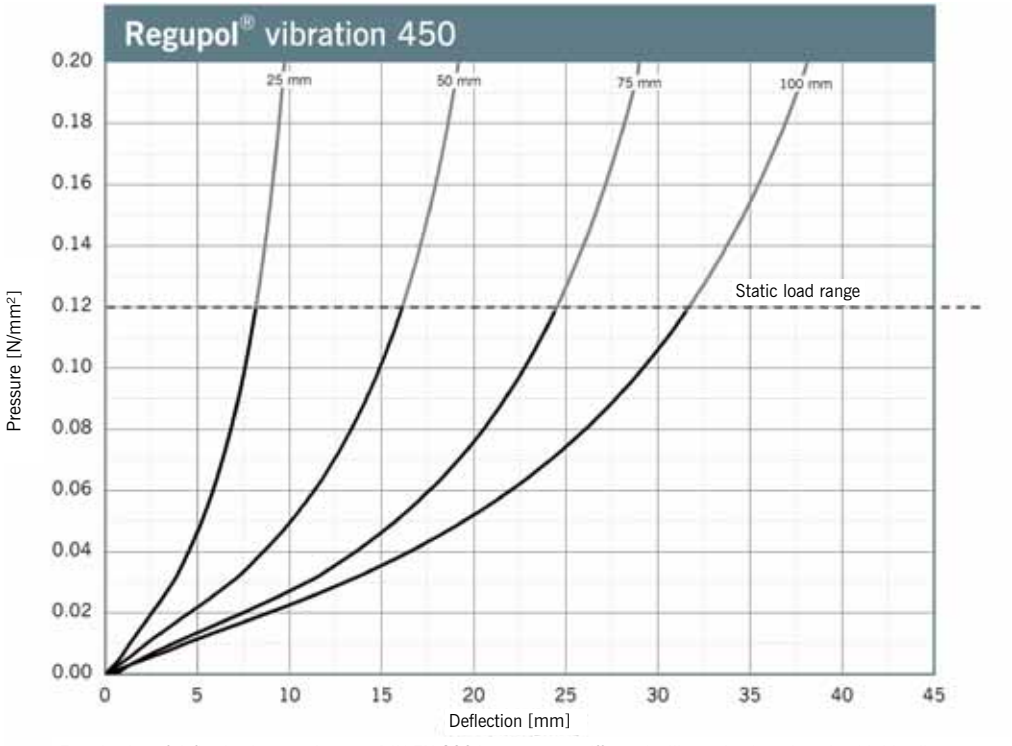


Load Ranges





Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocitiy of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 300 mm x 300 mm.

Vibration Isolation

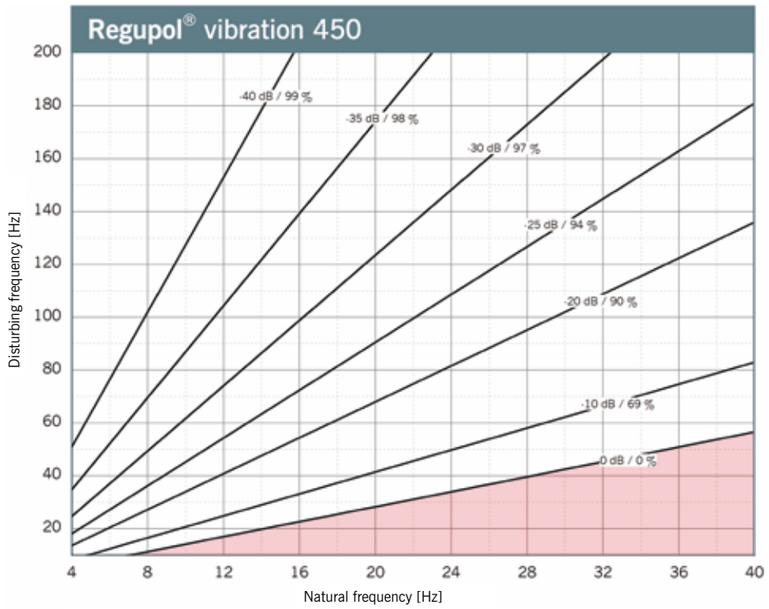
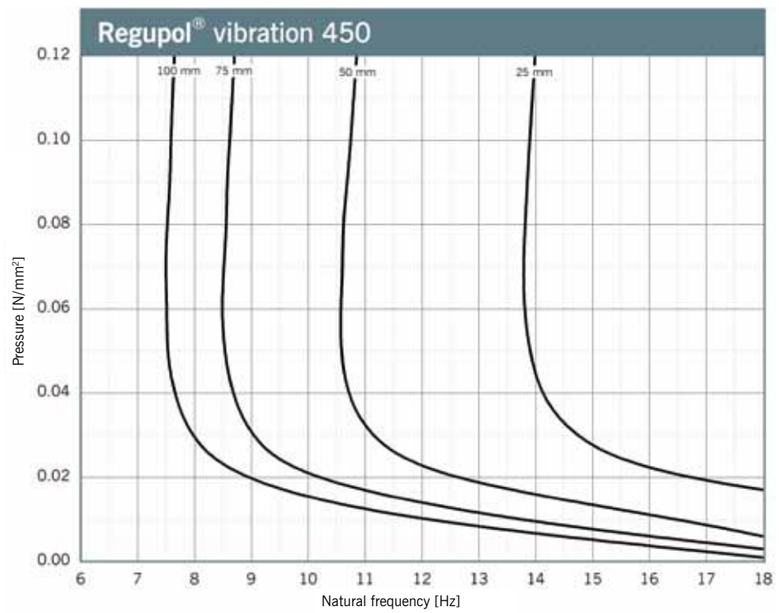
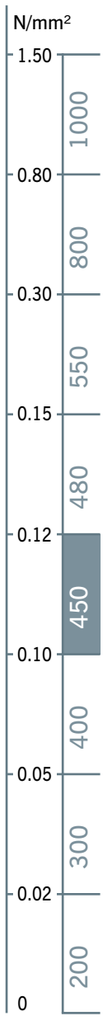


Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regupol® vibration 450**. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

Natural Frequency

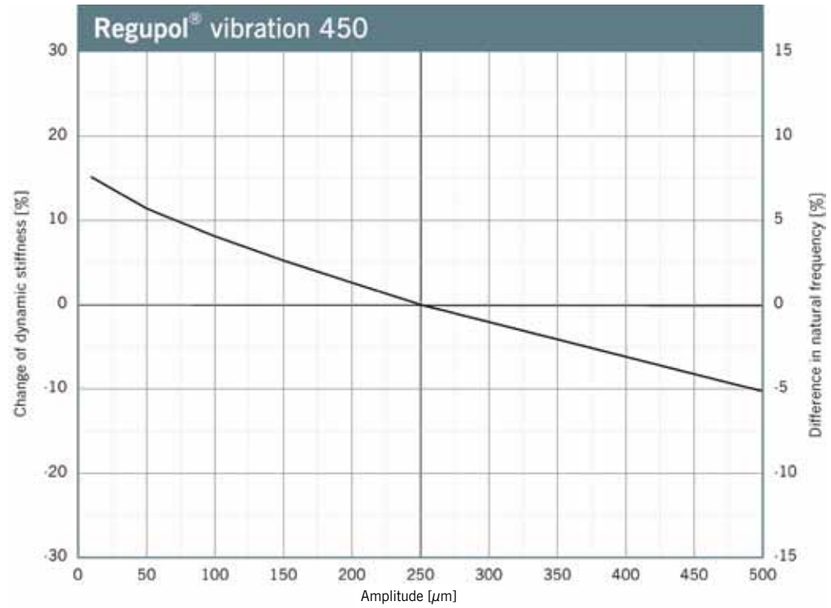


Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regupol® vibration 450** on a rigid base. Dimensions of test specimens 300 mm x 300 mm.

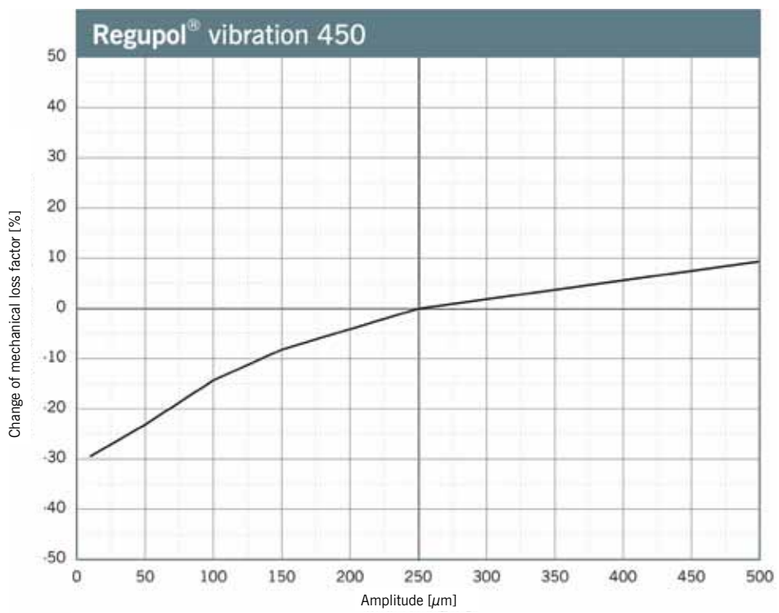


Regupol® vibration 450 3.4

Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation. Sinusoidal excitation at a constant mean load of 0.10 N/mm², dimensions of the specimens 300 mm x 300 mm x 50 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.10 N/mm², dimensions of the specimens 300 mm x 300 mm x 50 mm.

Modulus of Elasticity

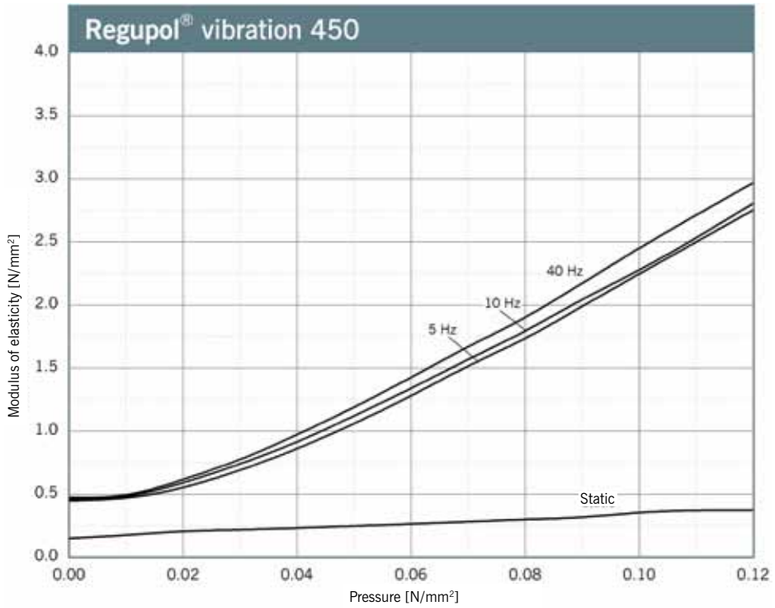


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 50 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

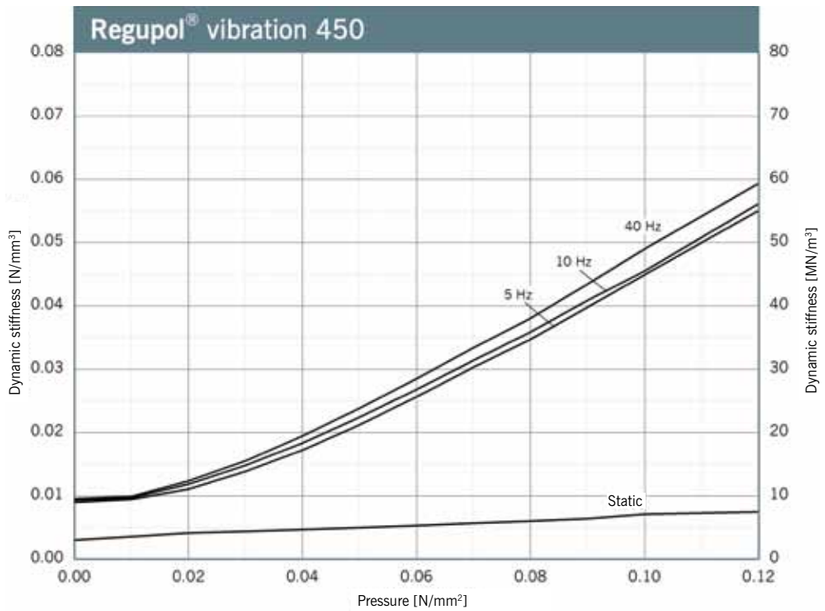
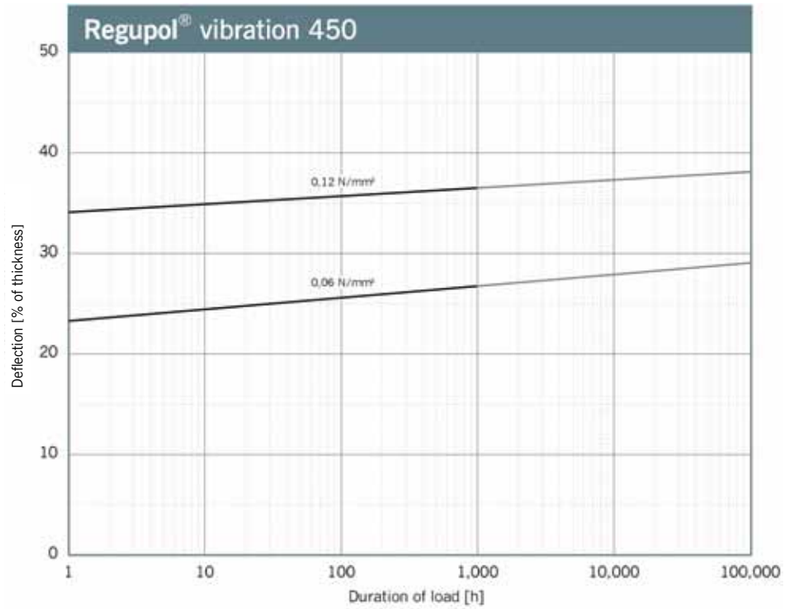


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 50 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regupol® vibration 450 3.4

Long-Term Creep Test



Dimensions of specimens 300 mm x 300 mm x 50 mm

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BSW

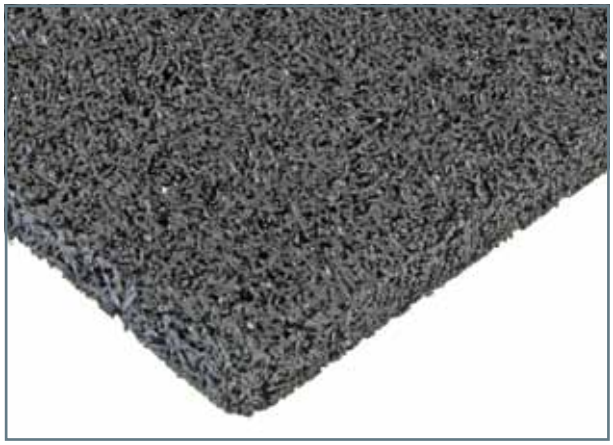
Regupol® vibration 480

3.5

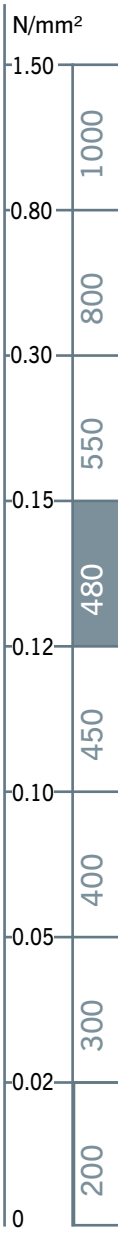
Standard forms of delivery, ex warehouse
Rolls
Thickness: 15 mm
Length: 10,000 mm, special length available
Width: 1,250 mm

Stripping/Plates
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

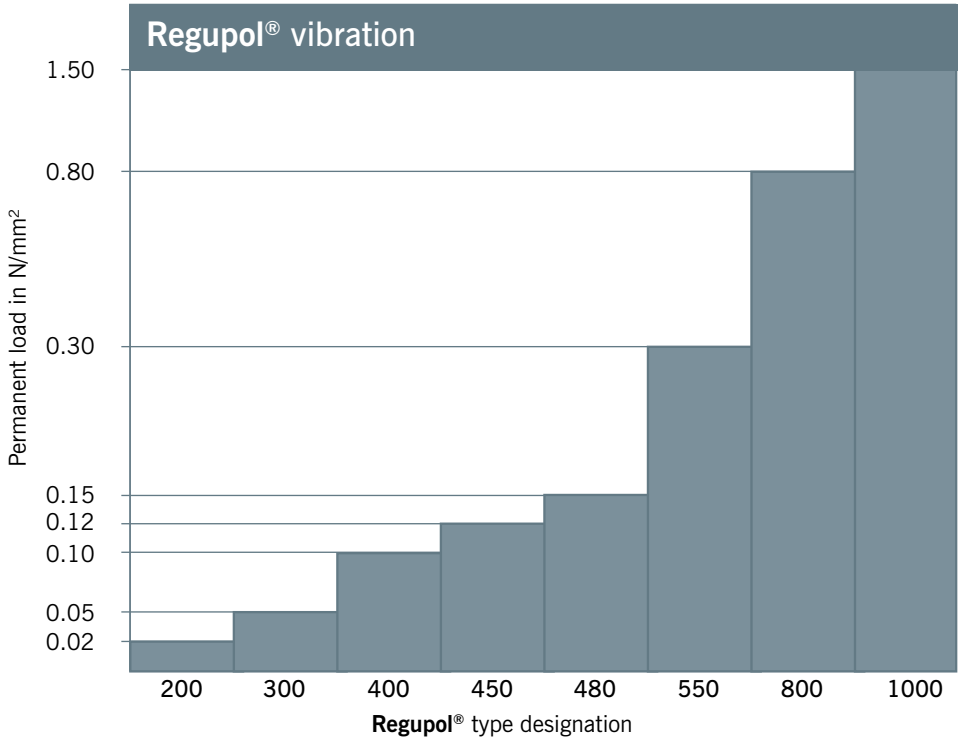
Continuous static load
0.15 N/mm²
Continuous and variable loads/operating load range
0.25 N/mm²

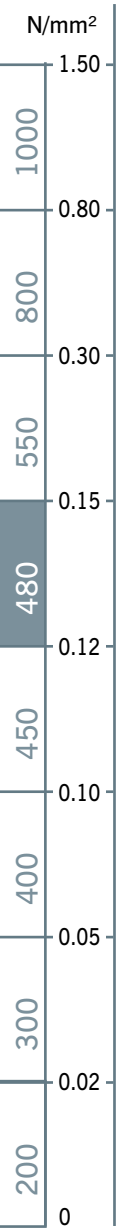


Static modulus of elasticity	Based on EN 826	0.25 - 0.8	N/mm²	Tangential modulus, see figure “Modulus of elasticity”
Dynamic modulus of elasticity	Based on DIN 53513	1.2 - 3.3	N/mm²	Depending on frequency, load and thickness, see figure “dynamic stiffness“
Mechanical loss factor	DIN 53513	0.17	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	3.0	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	0.36	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	55	%	
Tear resistance	Based on DIN ISO 34-1	4.5	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.7 0.8	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	220	kPa	Compressive stress at 25 % deformation test specimen h = 60 mm
Rebound elasticity	Based on DIN EN ISO 8307	31	%	dependent on thickness, test specimen h = 60 mm
Force reduction	DIN EN 14904	72	%	dependent on thickness, test specimen h = 60 mm
Ozone resistance	DIN EN ISO 17025	Cracking stage 0	[-]	

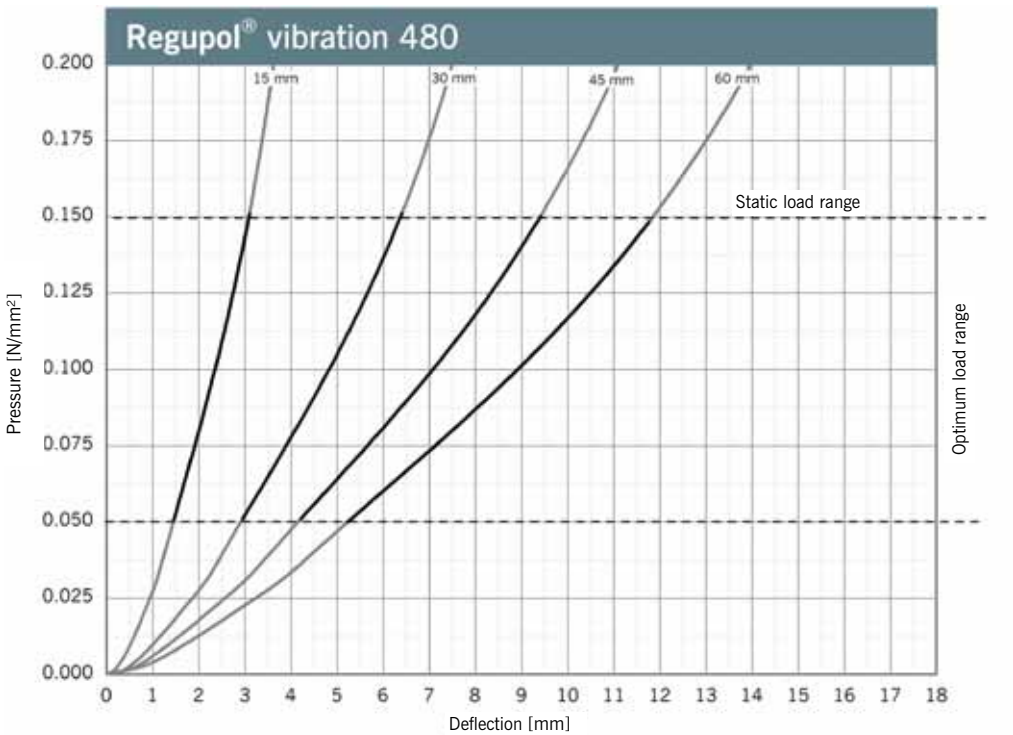


Load Ranges





Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocitiy of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 300 mm x 300 mm.

Vibration Isolation

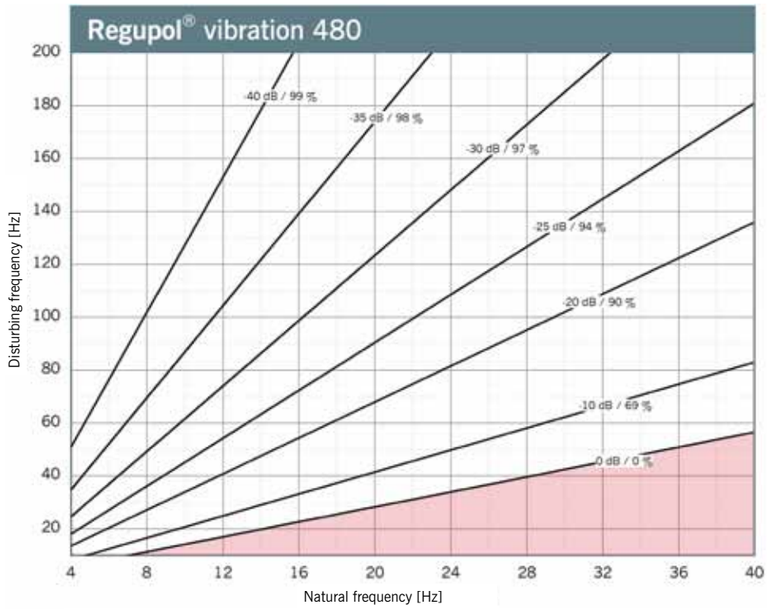
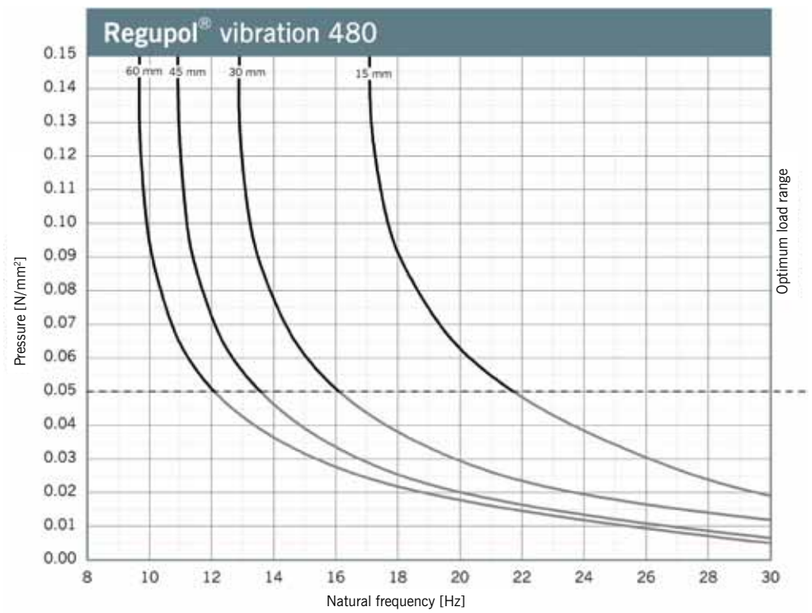
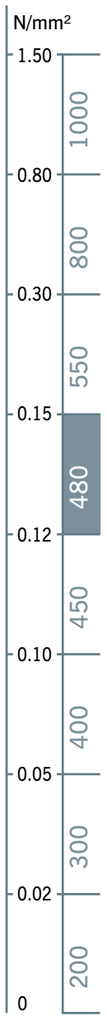


Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regupol® vibration 480**. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

Natural Frequency

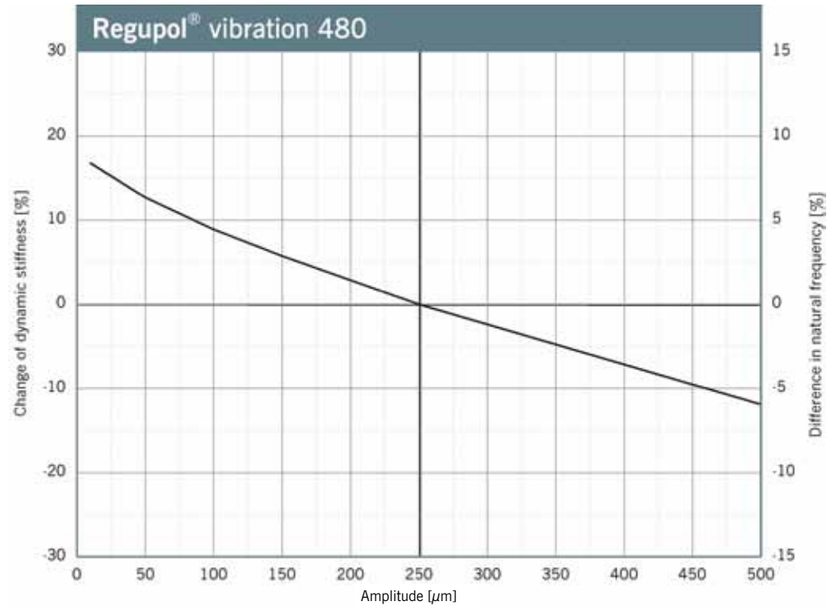


Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regupol® vibration 480** on a rigid base. Dimensions of test specimens 300 mm x 300 mm.

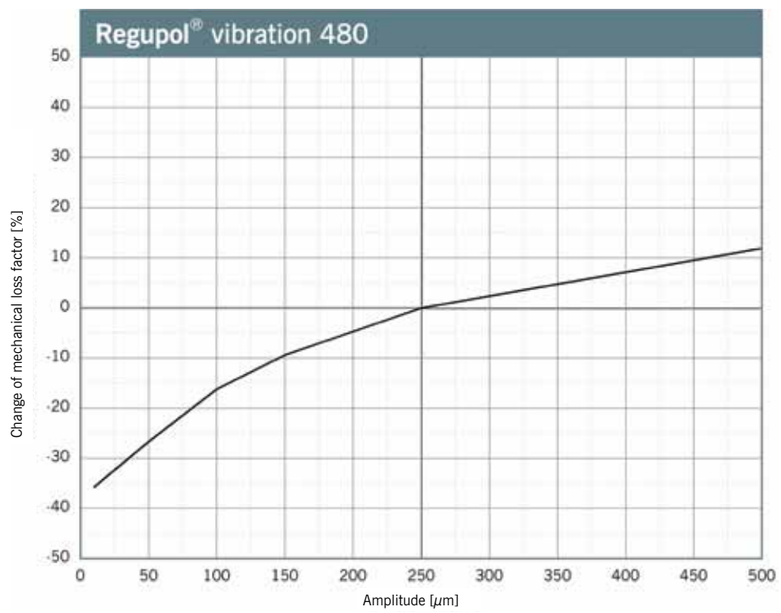


Regupol® vibration 480 3.5

Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation. Sinusoidal excitation at a constant mean load of 0.10 N/mm², dimensions of the specimens 300 mm x 300 mm x 60 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.10 N/mm², dimensions of the specimens 300 mm x 300 mm x 60 mm.

Modulus of Elasticity

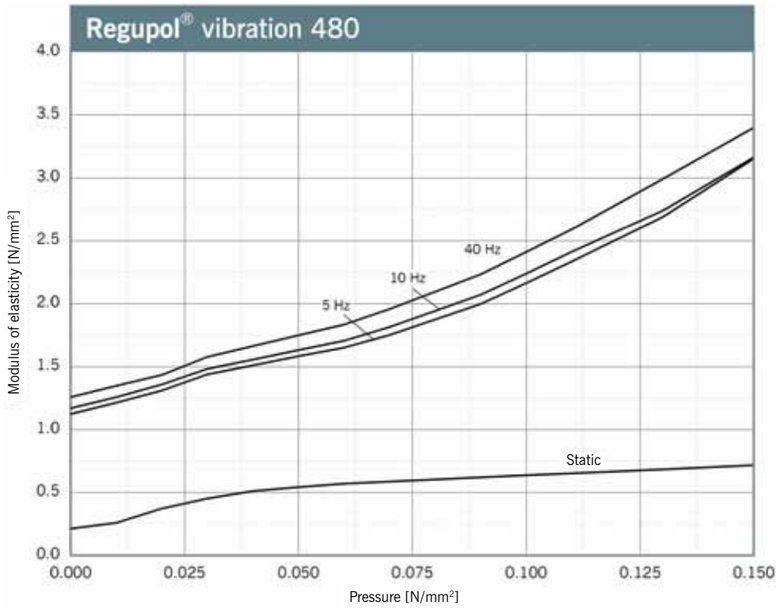


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 45 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

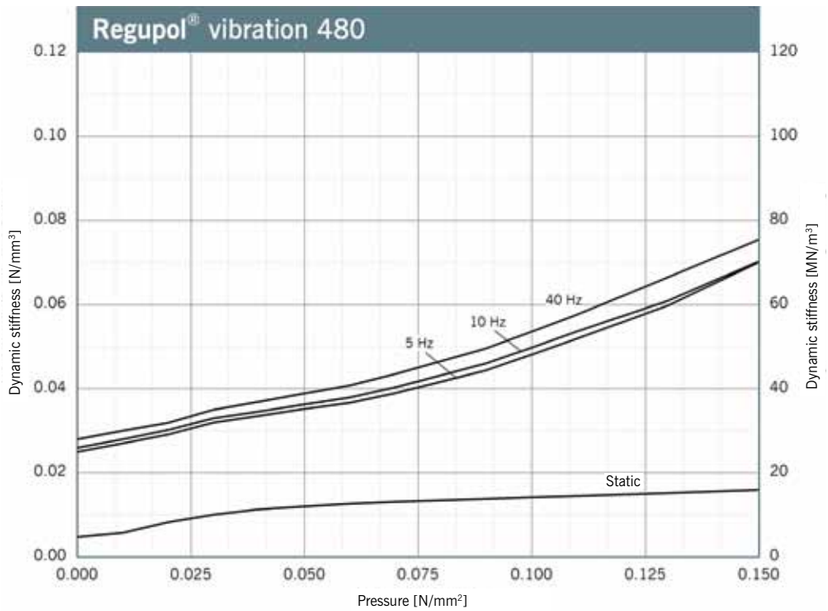
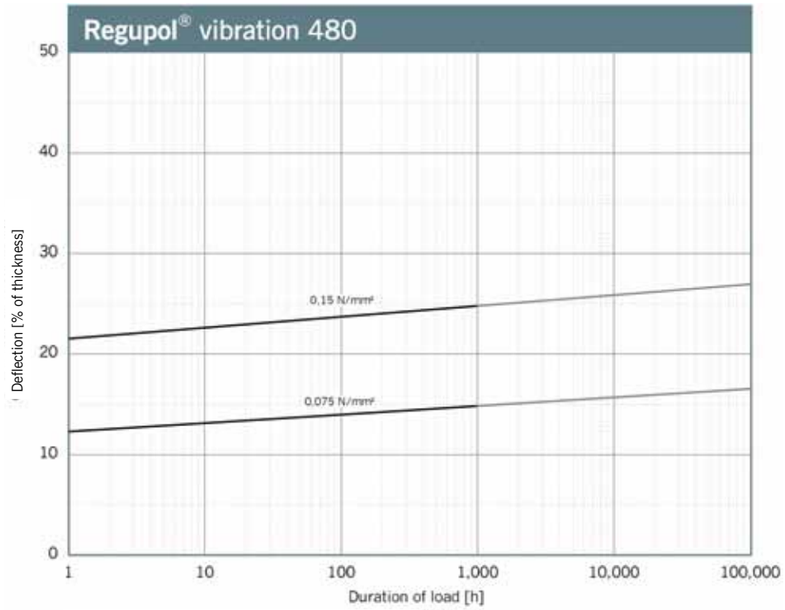


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 45 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regupol® vibration 480 3.5

Long-Term Creep Test



Dimensions of specimens 300 mm x 300 mm x 60 mm

Exclusion of Liability

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BSW

Regupol® vibration 550

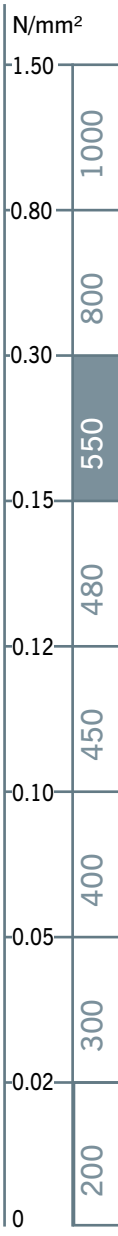
3.6

Standard forms of delivery, ex warehouse
Rolls
Thickness: 15 mm
Length: 10,000 mm, special length available
Width: 1,250 mm

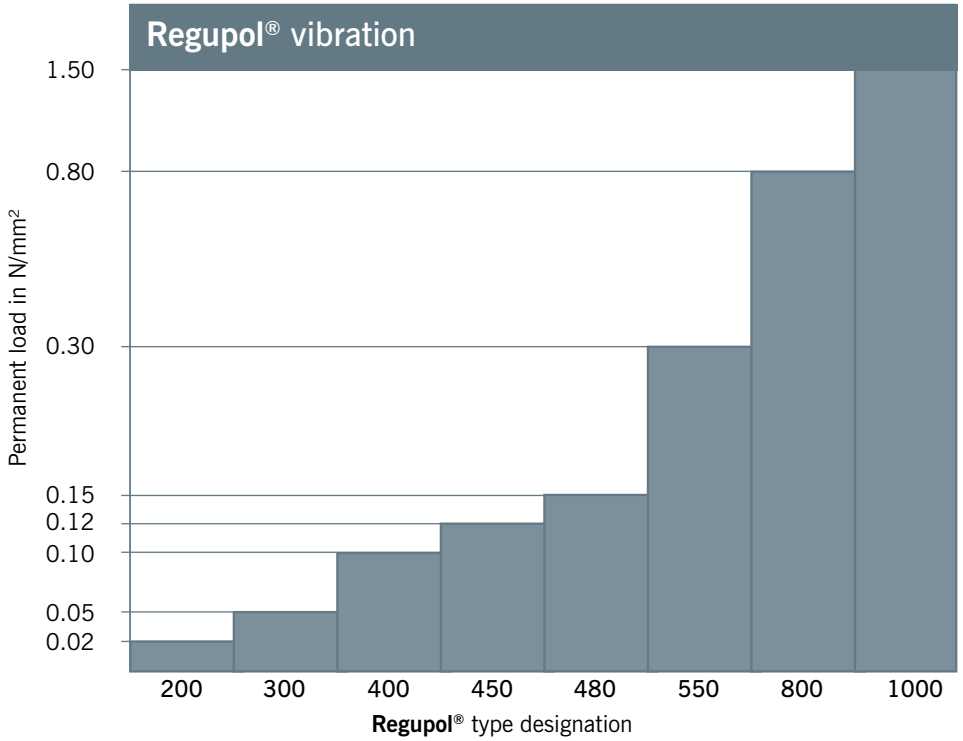
Stripping/Plates
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

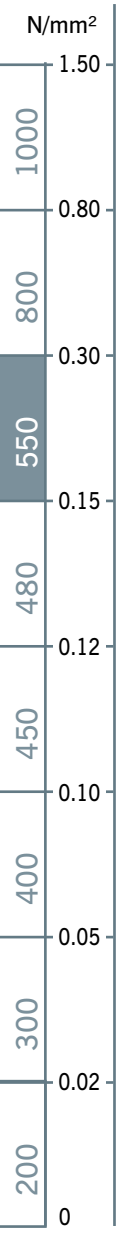
Continuous static load
0.30 N/mm²
Continuous and variable loads/operating load range
0.40 N/mm²

Static modulus of elasticity	Based on EN 826	0.5 - 1.7	N/mm²	Tangential modulus, see figure "Modulus of elasticity"
Dynamic modulus of elasticity	Based on DIN 53513	2.5 - 7.0	N/mm²	Depending on frequency, load and thickness, see figure "dynamic stiffness"
Mechanical loss factor	DIN 53513	0.16	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	3.4	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	0.6	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	65	%	
Tear resistance	Based on DIN ISO 34-1	5.0	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.7 0.8	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	415	kPa	Compressive stress at 25 % deformation test specimen h = 60 mm
Rebound elasticity	Based on DIN EN ISO 8307	36	%	dependent on thickness, test specimen h = 60 mm
Force reduction	DIN EN 14904	65	%	dependent on thickness, test specimen h = 60 mm
Ozone resistance	DIN EN ISO 17025	Cracking stage 0	[-]	

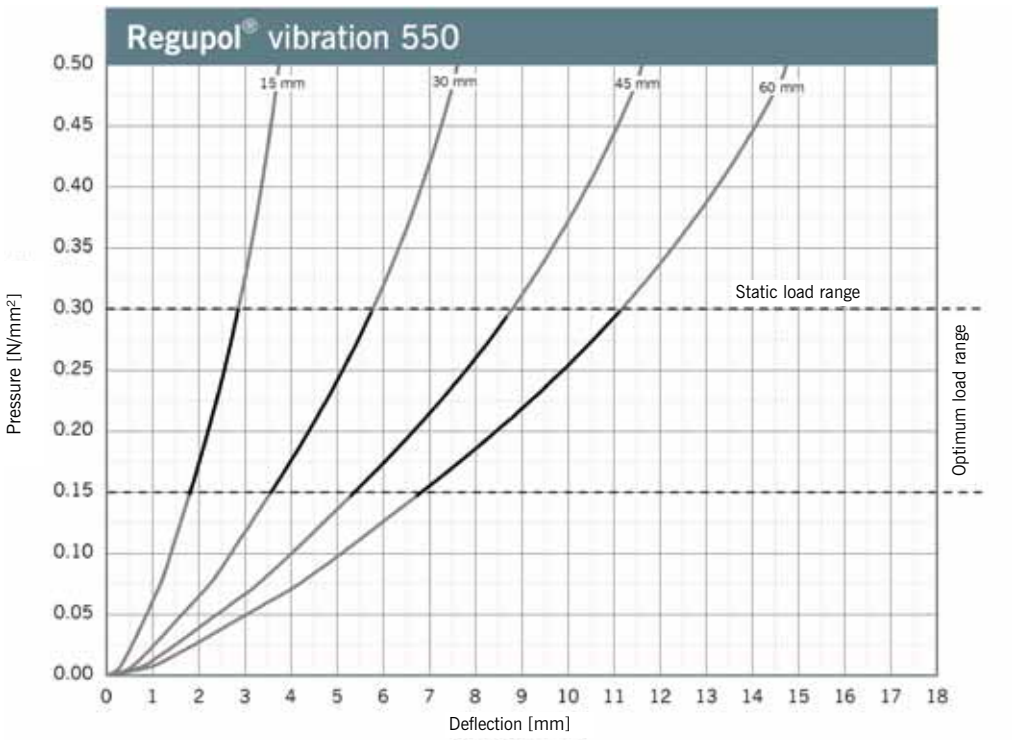


Load Ranges





Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocitiy of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 300 mm x 300 mm.

Vibration Isolation

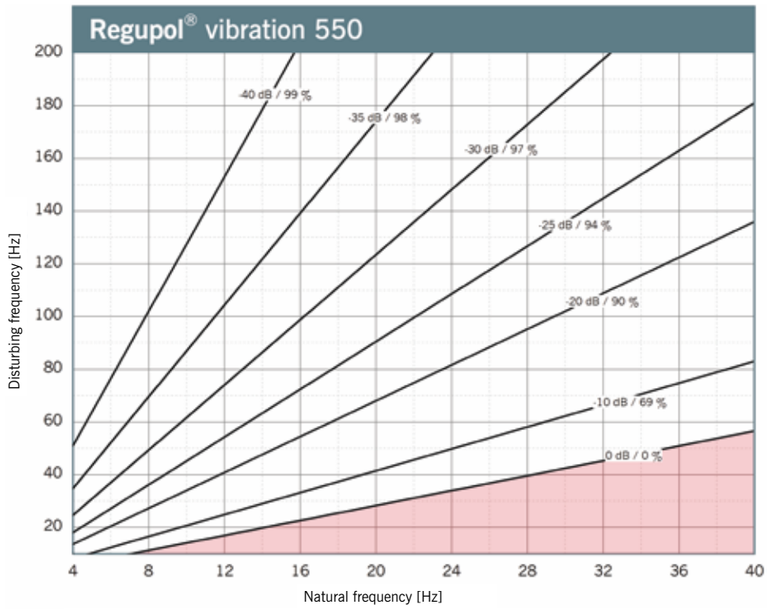
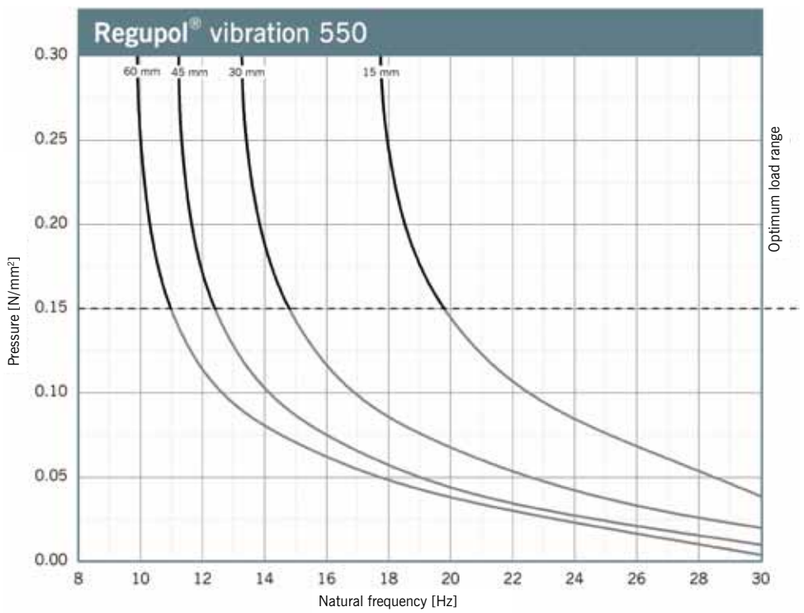


Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regupol® vibration 550**. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

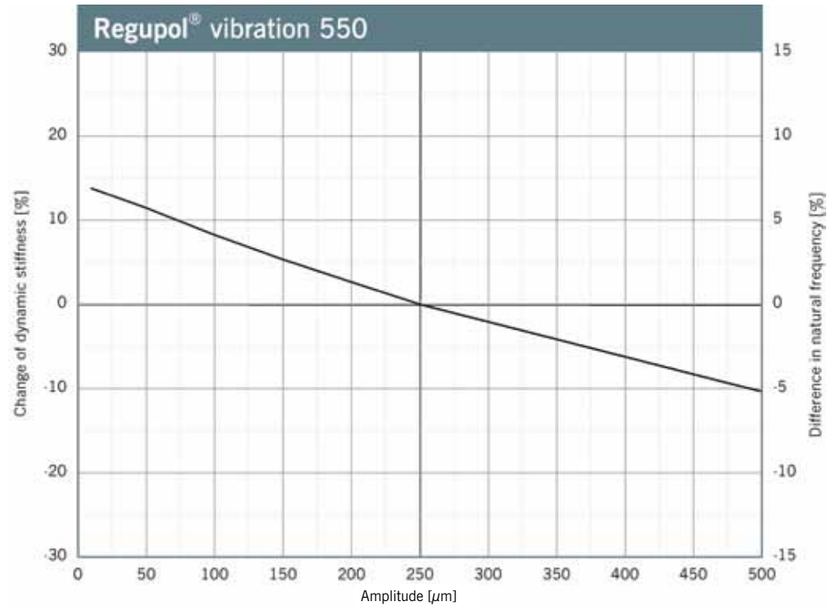
Natural Frequency



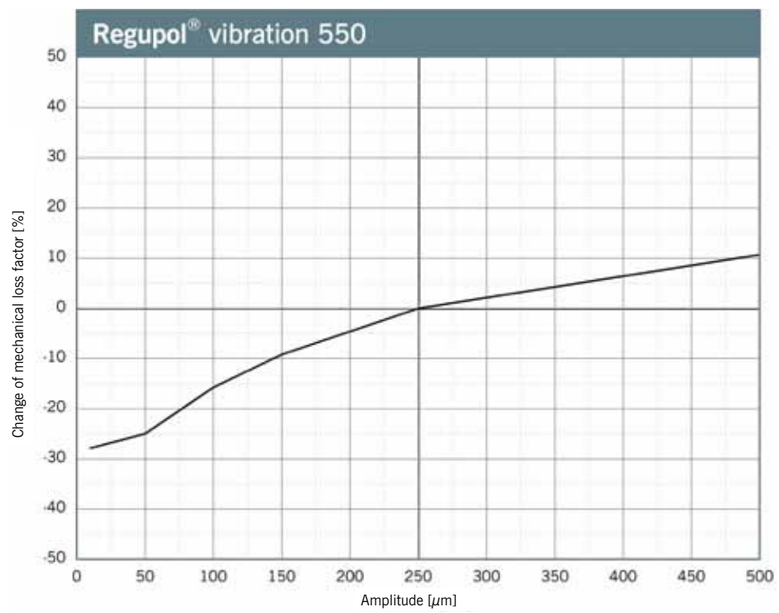
Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regupol® vibration 550** on a rigid base. Dimensions of test specimens 300 mm x 300 mm.

Regupol® vibration 550 3.6

Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation. Sinusoidal excitation at a constant mean load of 0.25 N/mm², dimensions of the specimens 300 mm x 300 mm x 60 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.25 N/mm², dimensions of the specimens 300 mm x 300 mm x 60 mm.

Modulus of Elasticity

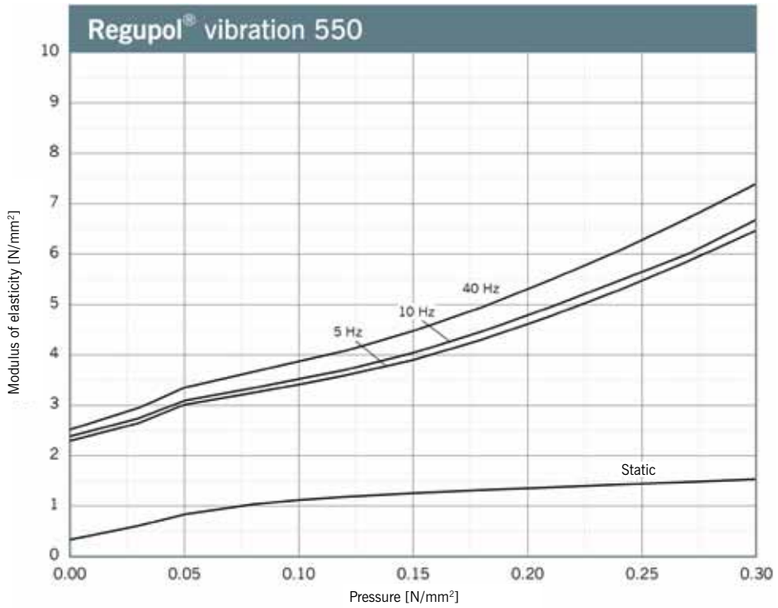


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 45 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

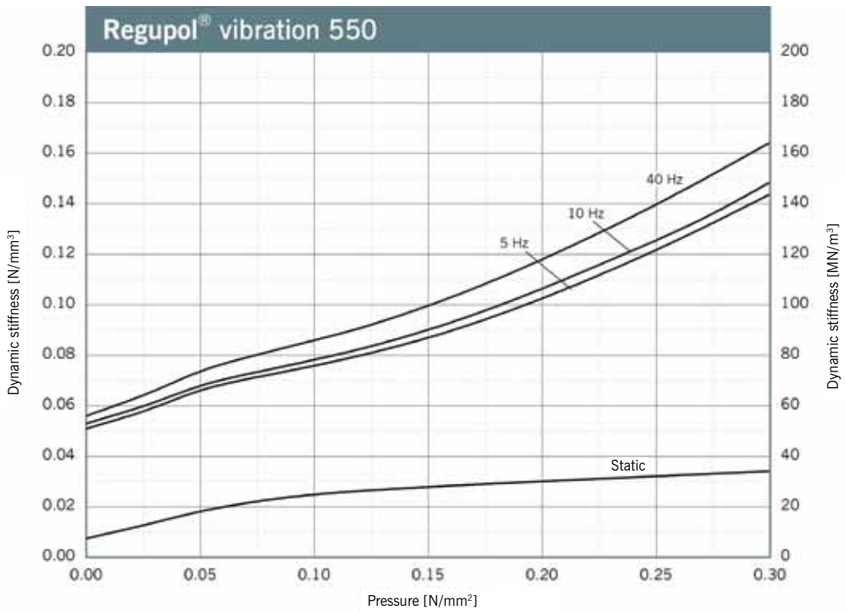
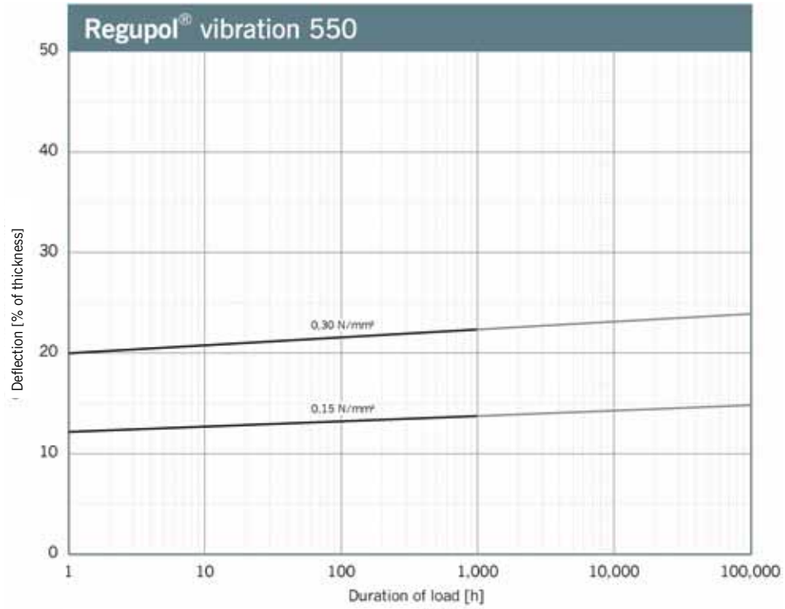


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 mm x 300 mm x 45 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regupol® vibration 550 3.6

Long-Term Creep Test



Dimensions of specimens 300 mm x 300 mm x 60 mm

Exclusion of Liability

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BSW

Regupol® vibration 800

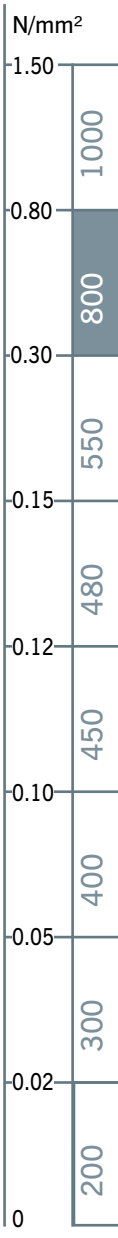
3.7

Standard forms of delivery, ex warehouse
Rolls
Thickness: 10 mm
Length: 8,000 mm, special length available
Width: 1,250 mm

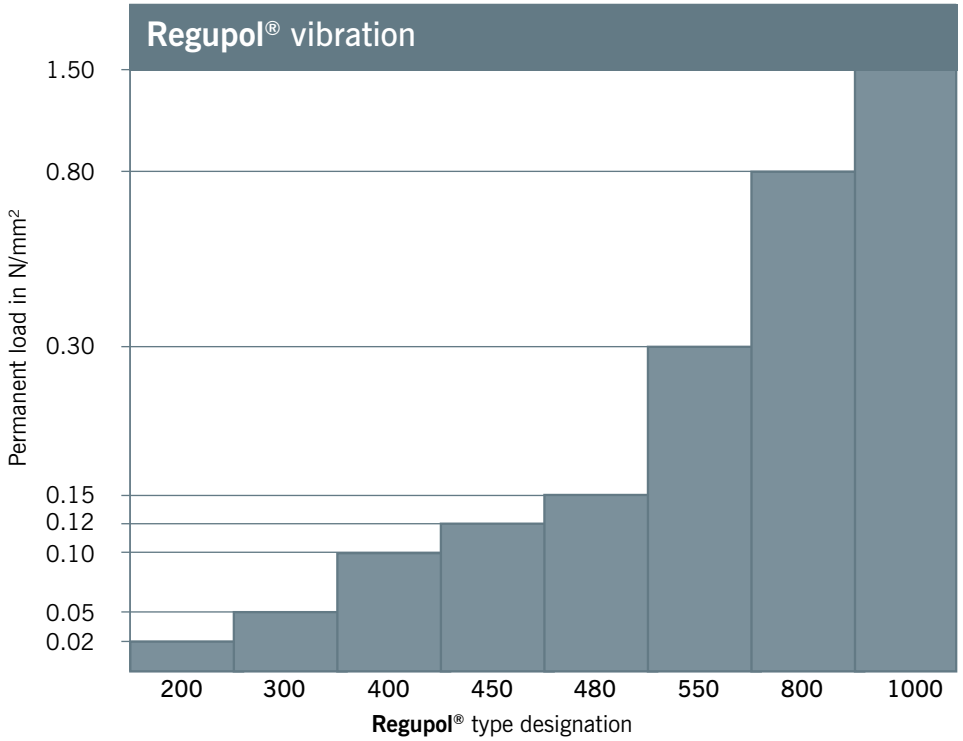
Stripping/Plates
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

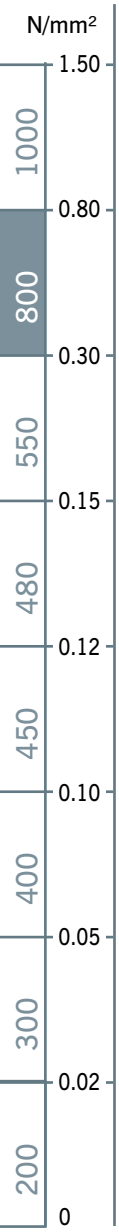
Continuous static load
0.80 N/mm²
Continuous and variable loads/operating load range
1.00 N/mm²

Static modulus of elasticity	Based on EN 826	1.2 - 2.9	N/mm²	Tangential modulus, see figure “Modulus of elasticity”
Dynamic modulus of elasticity	Based on DIN 53513	3.6 - 18.2	N/mm²	Depending on frequency, load and thickness, see figure “dynamic stiffness“
Mechanical loss factor	DIN 53513	0.18	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	3.7	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	0.9	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	70	%	
Tear resistance	Based on DIN ISO 34-1	8.0	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.7 0.8	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	545	kPa	Compressive stress at 25 % deformation test specimen h = 60 mm
Rebound elasticity	Based on DIN EN ISO 8307	30	%	dependent on thickness, test specimen h = 60 mm
Force reduction	DIN EN 14904	61	%	dependent on thickness, test specimen h = 60 mm
Ozone resistance	DIN EN ISO 17025	Cracking stage 0	[-]	

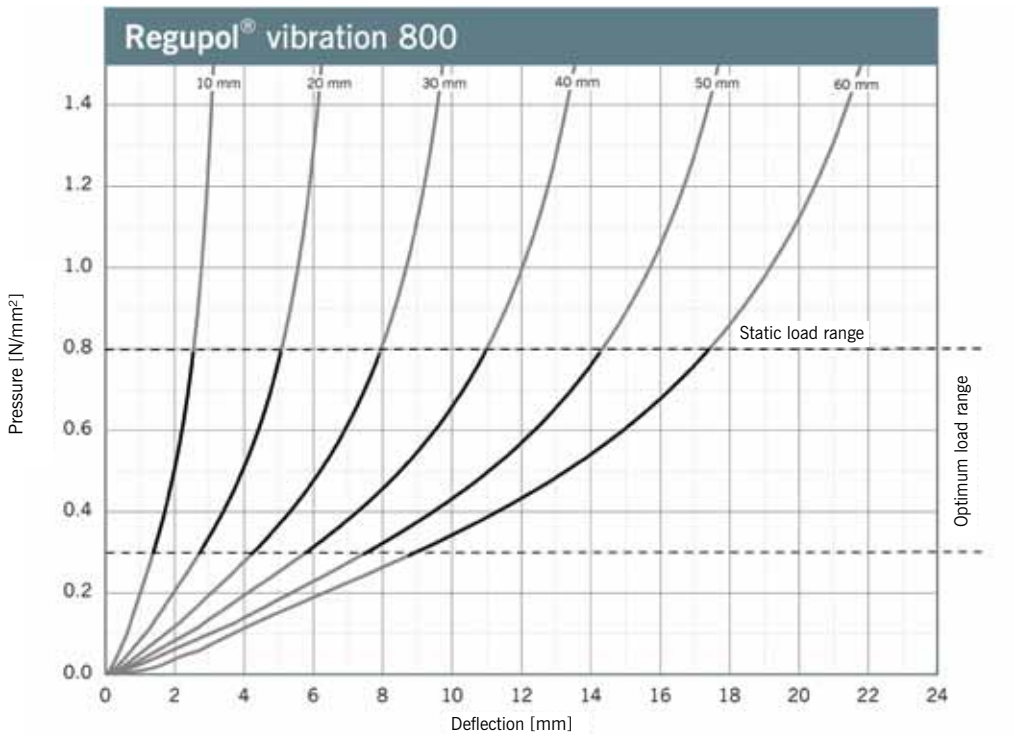


Load Ranges





Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocitiy of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 250 mm x 250 mm.

Vibration Isolation

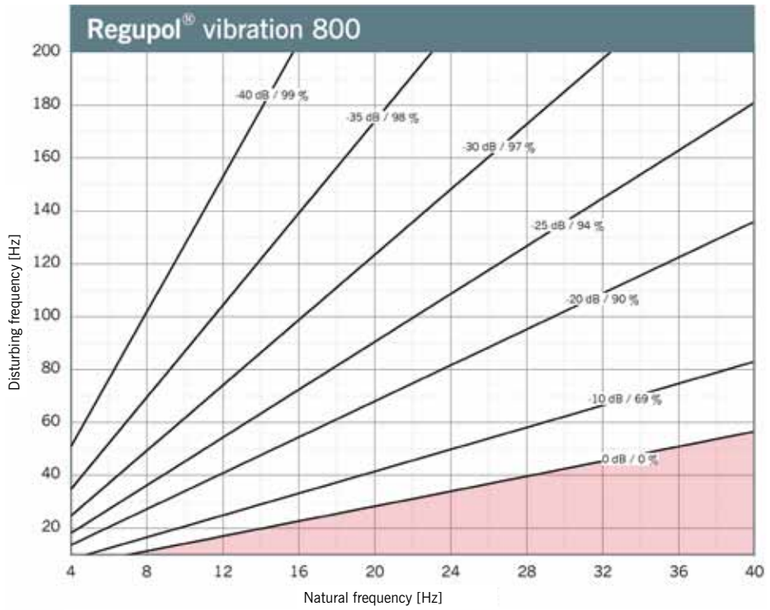
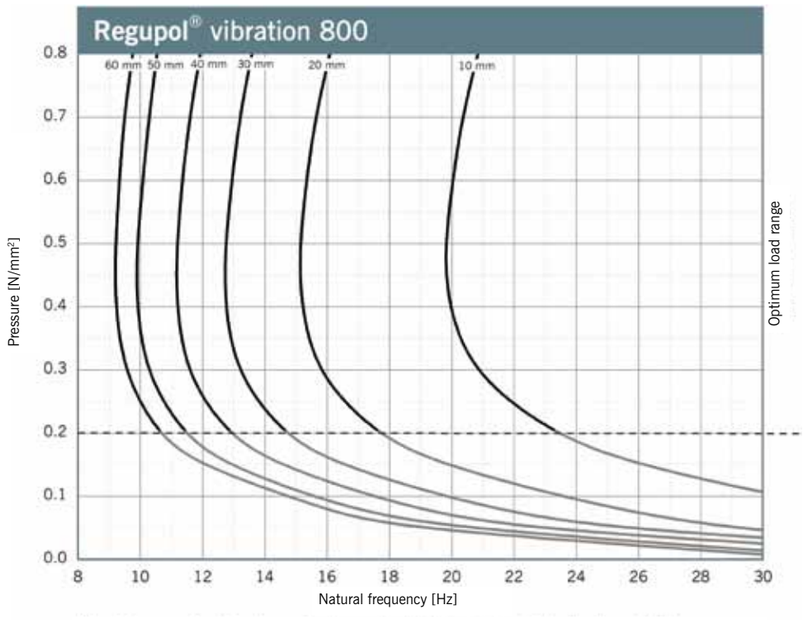


Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regupol® vibration 800**. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

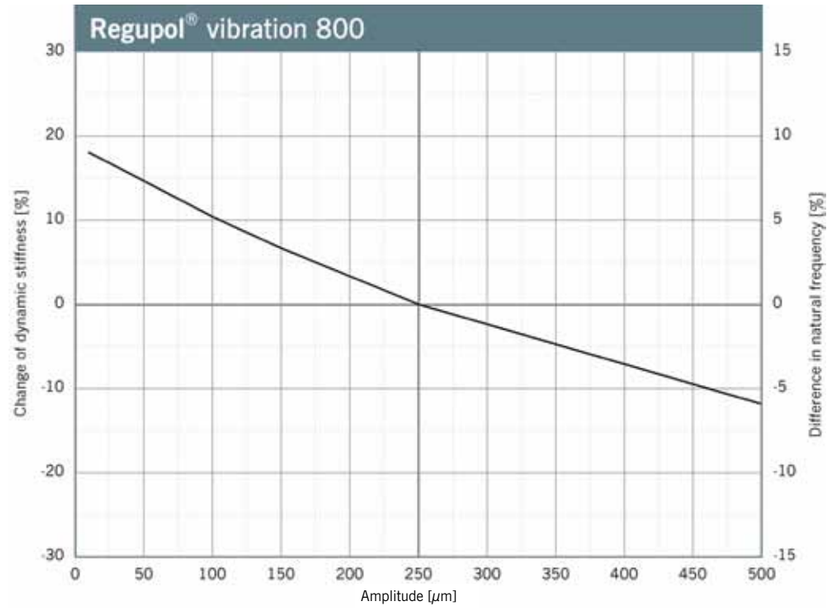
Natural Frequency



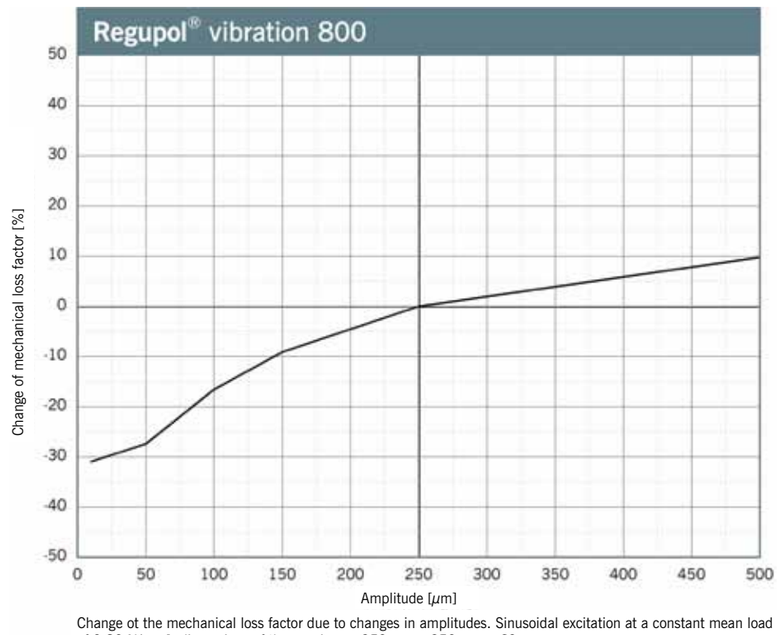
Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regupol® vibration 800** on a rigid base. Dimensions of test specimens 250 mm x 250 mm.

Regupol® vibration 800 3.7

Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation. Sinusoidal excitation at a constant mean load of 0.80 N/mm², dimensions of the specimens 250 mm x 250 mm x 60 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.80 N/mm², dimensions of the specimens 250 mm x 250 mm x 60 mm.

Modulus of Elasticity

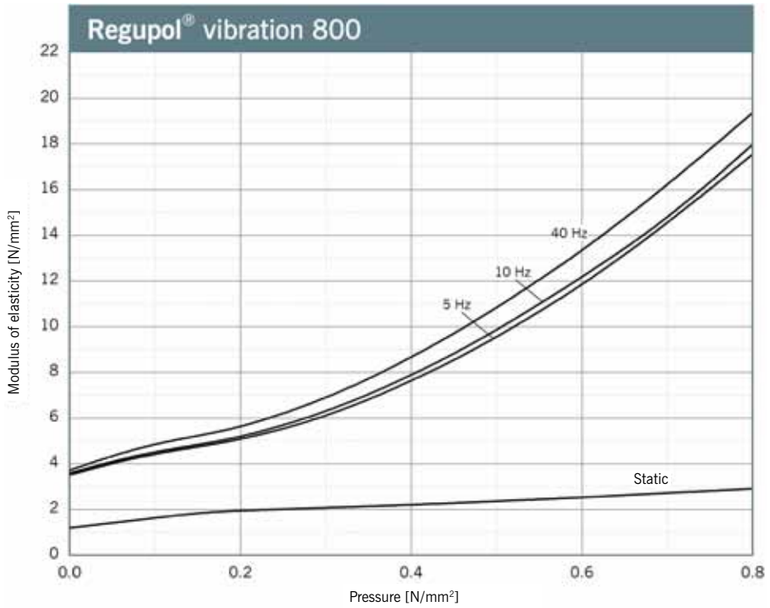


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 250 mm x 250 mm x 40 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

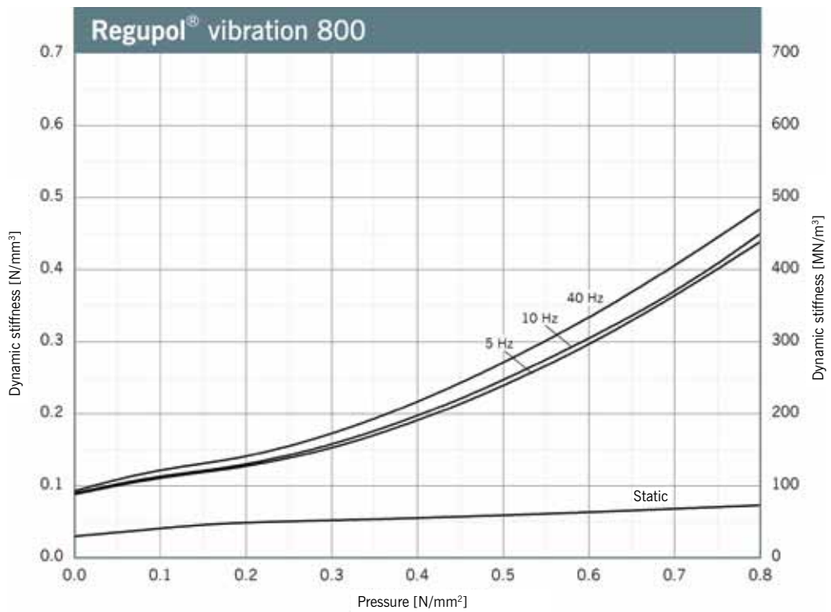
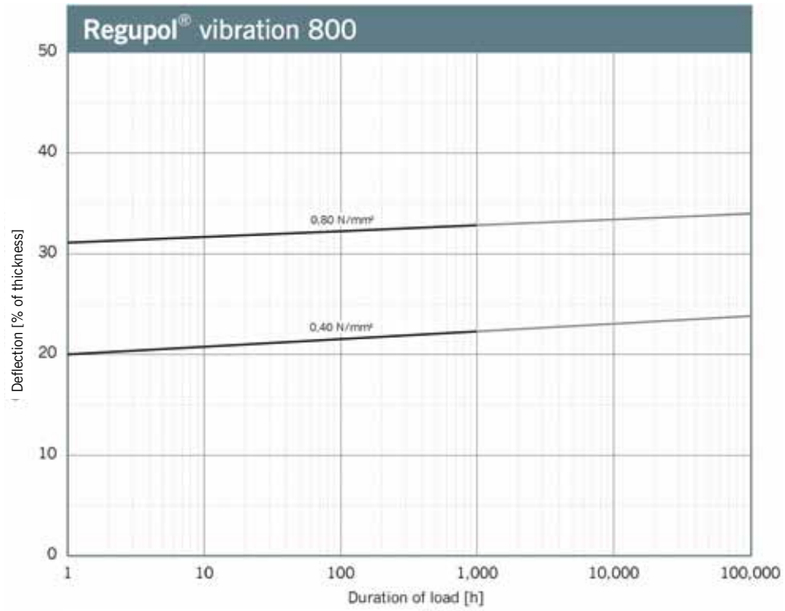


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 250 mm x 250 mm x 40 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regupol® vibration 800 3.7

Long-Term Creep Test



Dimensions of specimens 250 mm x 250 mm x 60 mm

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BSW

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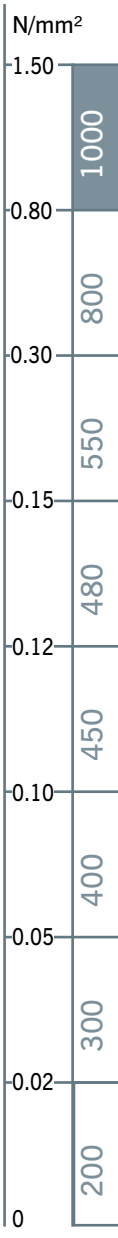
Rolls
Thickness: 10 mm
Length: 8,000 mm, special length available
Width: 1,250 mm

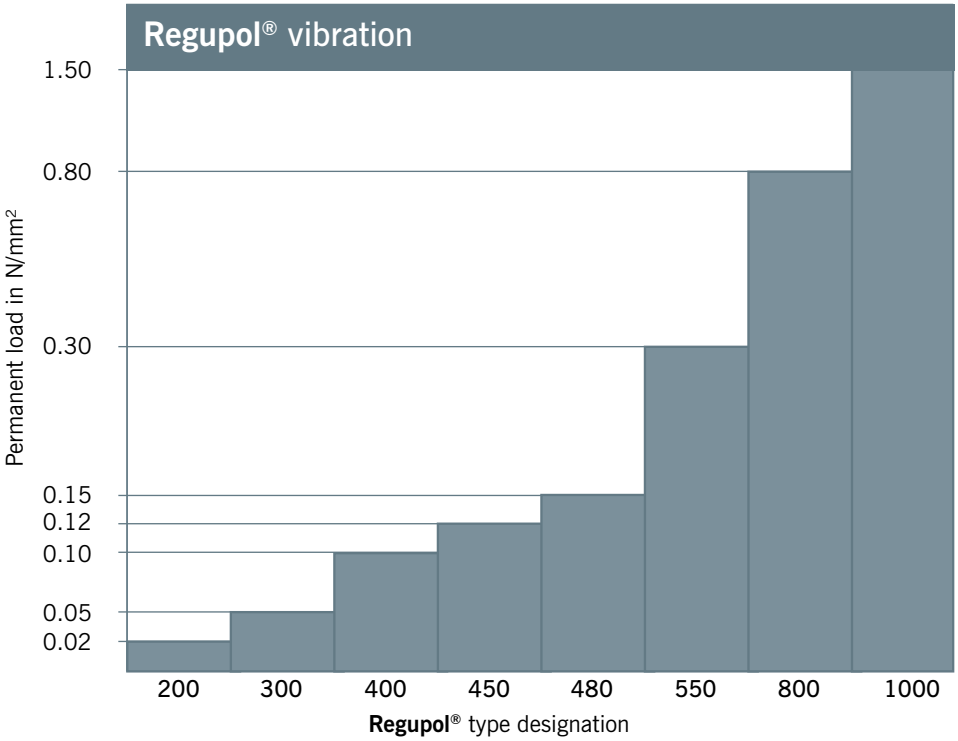
Stripping/Plates
On request
Die-cutting, water-jet cutting, self-adhesive versions possible

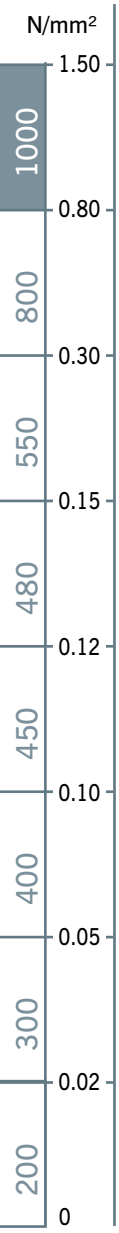
Continuous static load
1.50 N/mm²
Continuous and variable loads/operating load range
1.75 N/mm²

Static modulus of elasticity	Based on EN 826	4.0 - 11.0	N/mm²	Tangential modulus, see figure "Modulus of elasticity"
Dynamic modulus of elasticity	Based on DIN 53513	15.0 - 45.0	N/mm²	Depending on frequency, load and thickness, see figure "dynamic stiffness"
Mechanical loss factor	DIN 53513	0.16	[-]	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	4.9	%	Measured 30 minutes after decompression with 50% deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	2.3	N/mm²	
Elongation at break	Based on DIN EN ISO 1798	110	%	
Tear resistance	Based on DIN ISO 34-1	15.0	N/mm	
Fire behaviour	DIN 4102 DIN EN 13501	B2 E	[-] [-]	Normal flammability
Sliding friction	BSW-laboratory BSW-laboratory	0.6 0.7	[-] [-]	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	1650	kPa	Compressive stress at 25 % deformation test specimen h = 60 mm
Rebound elasticity	Based on DIN EN ISO 8307	37	%	dependent on thickness, test specimen h = 60 mm
Force reduction	DIN EN 14904	45	%	dependent on thickness, test specimen h = 60 mm
Ozone resistance	DIN EN ISO 17025	Cracking stage 0	[-]	

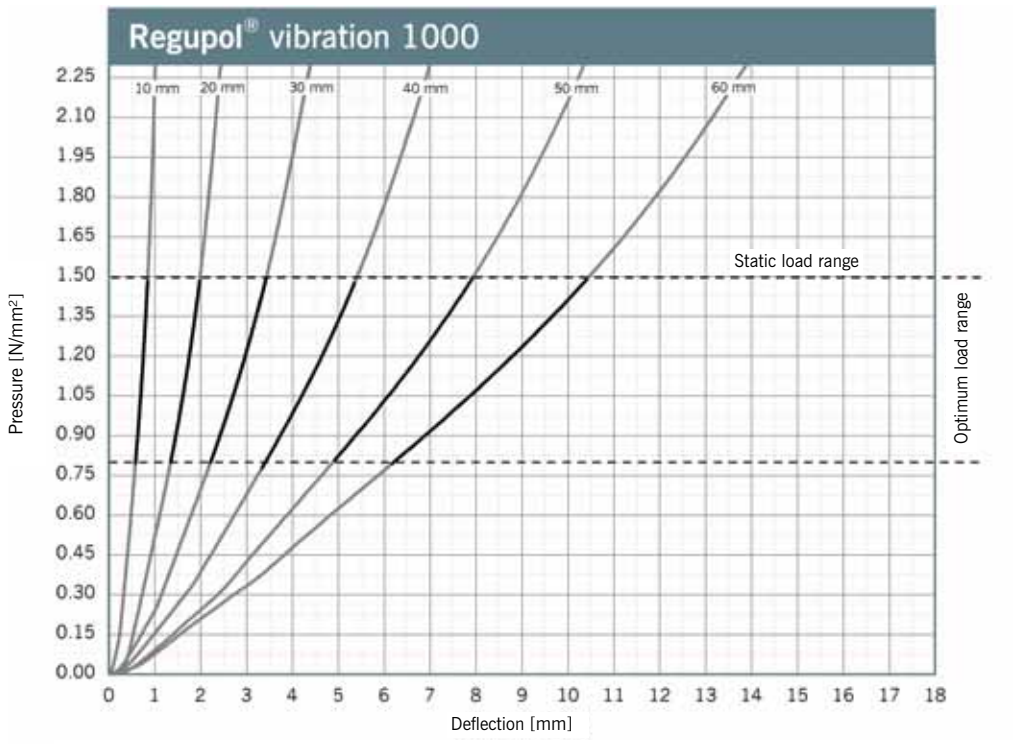


Load Ranges





Load Deflection



Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocitiy of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 200 mm x 200 mm.

Vibration Isolation

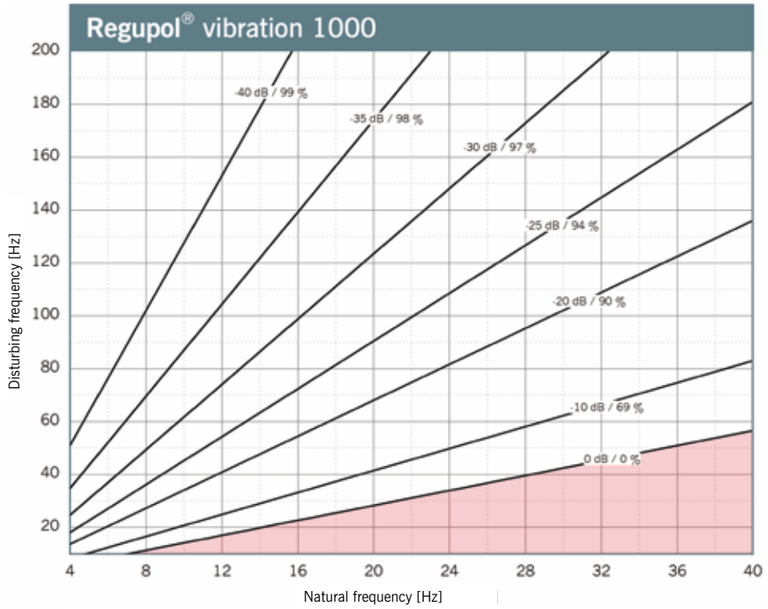
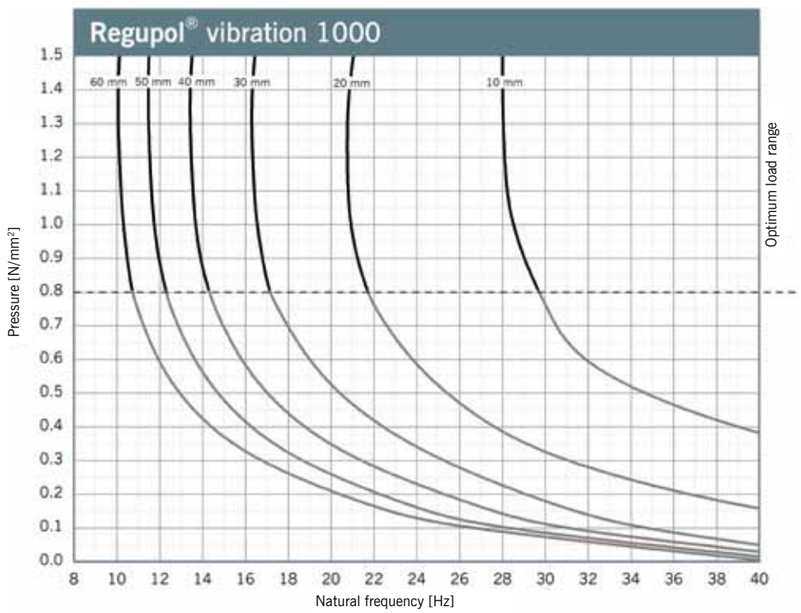


Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **Regupol® vibration 1000**. Parameter: power transmission (insertion loss) in dB, isolation factor in %.

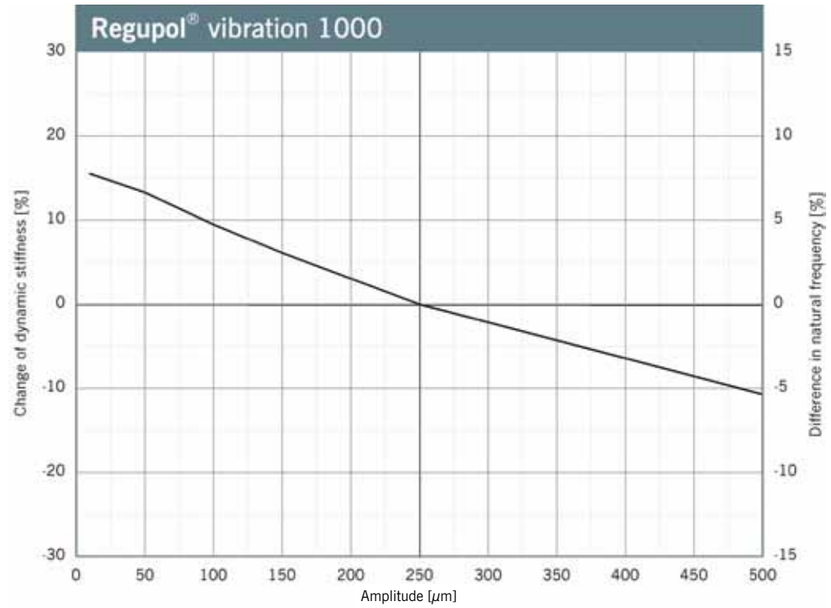
Natural Frequency



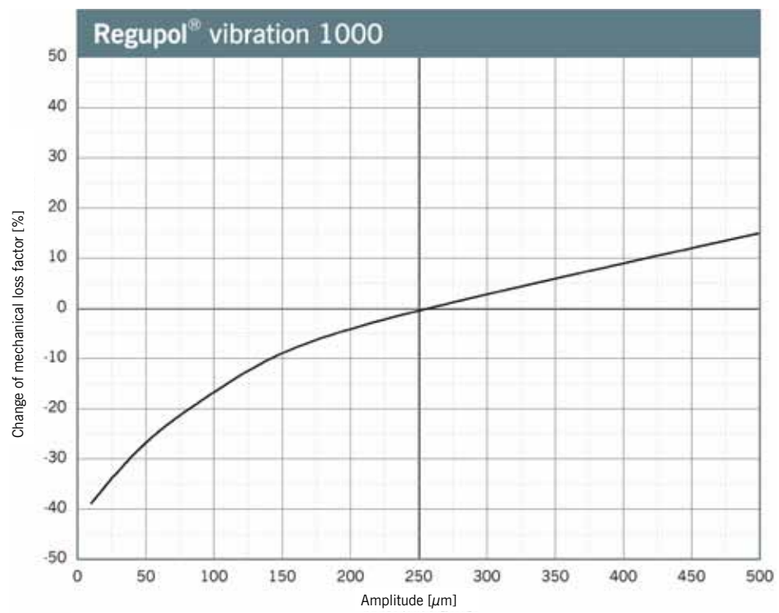
Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **Regupol® vibration 1000** on a rigid base. Dimensions of test specimens 200 mm x 200 mm.

Regupol® vibration 1000 3.8

Influence of Amplitude



Change of the dynamic stiffness due to changes in amplitudes. Average for 5 Hz, 10 Hz and 40 Hz excitation. Sinusoidal excitation at a constant mean load of 1.50 N/mm², dimensions of the specimens 200 mm x 200 mm x 60 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change ot the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 1.50 N/mm², dimensions of the specimens 200 mm x 200 mm x 60 mm.

Modulus of Elasticity

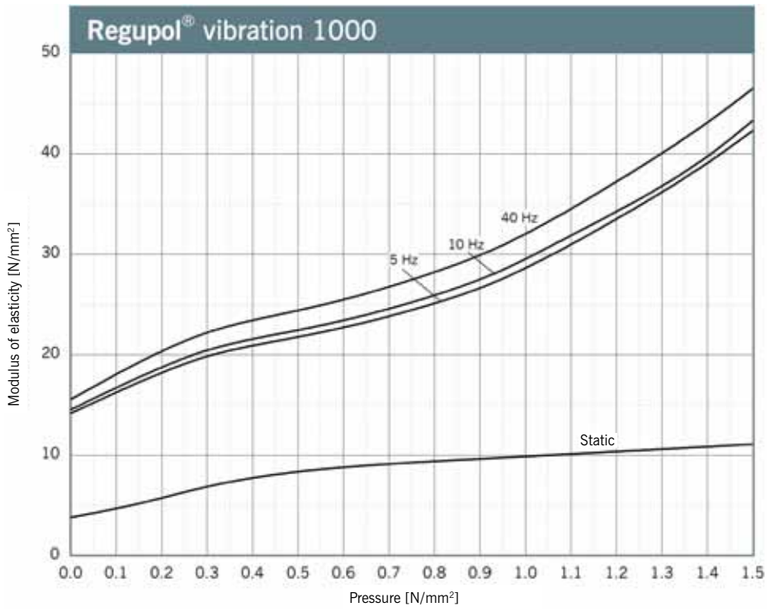


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 200 mm x 200 mm x 40 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Dynamic Stiffness

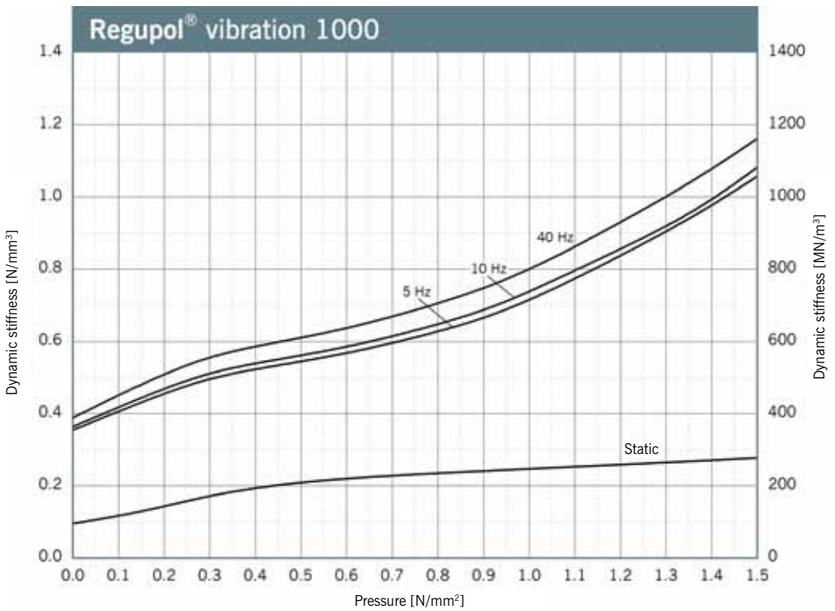
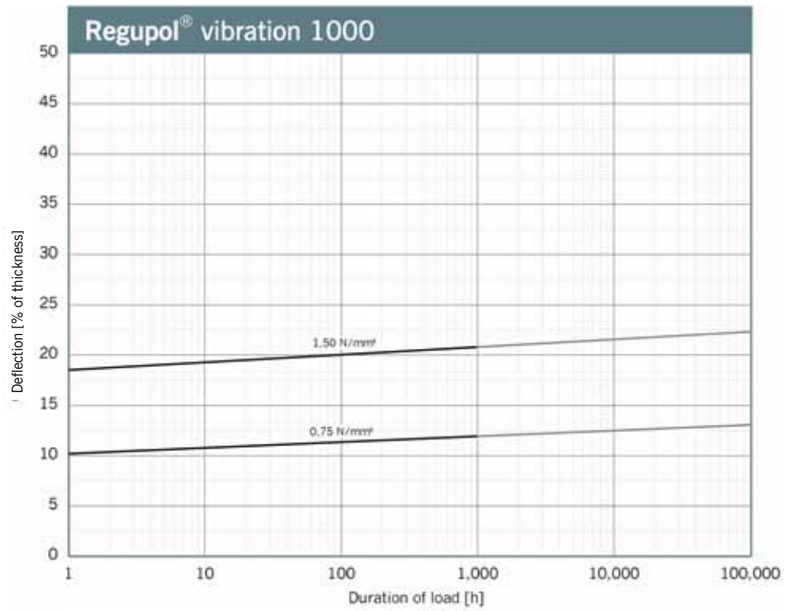


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 200 mm x 200 mm x 40 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

Regupol® vibration 1000 3.8

Long-Term Creep Test



Dimensions of specimens 200 mm x 200 mm x 60 mm

Exclusion of Liability

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Contact: Steffen Blecher, Phone: +49 2751 803-126 • s.blecher@berleburger.de;
Florian Sassmannshausen, Phone: +49 2751 803-230 • f.sassmannshausen@berleburger.de •
Downloads at www.bsw-vibration-technology.com

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on your wavelength

Regupol® | Regufoam®

Impact Sound Insulation Technical Details

BSW impact sound insulation under screed in: Silvertower Frankfurt, Hesse State Parliament Wiesbaden, CINEMAGNUM Nuremberg, Opera House Frankfurt

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www.bsw-vibration-technology.com

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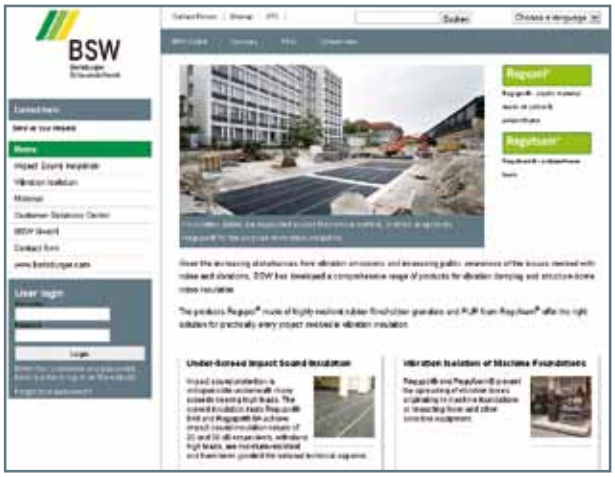
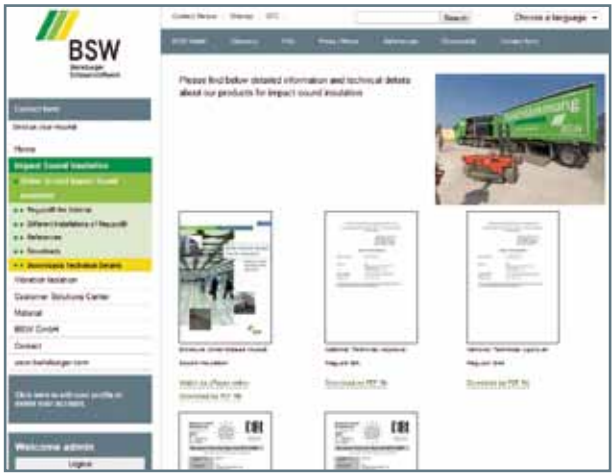


The website **www.bsw-vibration-technology.com** serves mainly as a planning basis for architectural acoustics and construction engineers. You must register to use the technical documents. BSW will send you your user name and password right away. Since being put up in January 2010, this website already has several hundred registered users.



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Florian Sassmannshausen, Phone: +49 2751 803-230 • f.sassmannshausen@berleburger.de •
Downloads at www.bsw-vibration-technology.com

Impact Sound Insulation Under Screed

Largely rot-, moisture-, age- and deformation-resistant, permanently elastic

Material
PU-bonded rubber fibres

Standard delivery form
in rolls of 15 m² each, 13,040 x 1,150 x 8 mm

Temperature resistance
from –20 °C to +80 °C

Colour
Anthracite

Regupol® sound 47, dimpled on underside

Physical Data

weighted impact noise reduction as per ISO 717-2
$\Delta L_w \geq 20$ dB

Mean value for dynamic rigidity as per DIN EN 29052-1
s' ≈ 47 MN/m³

Thermal conductivity
λ = 0.075 W/mK

Thermal resistance
R = 0.1031 m²K/W

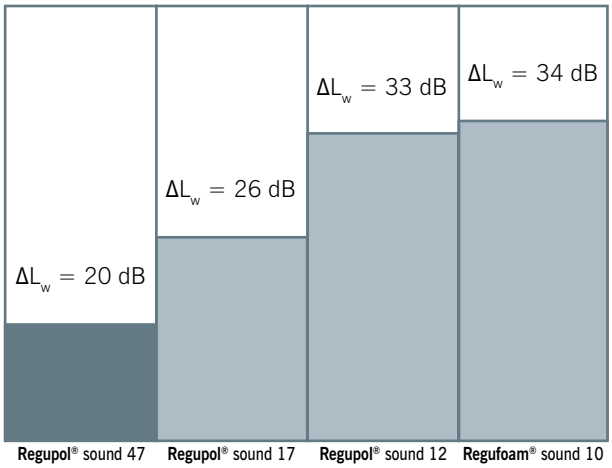
Fire classification as per DIN 4102/DIN EN 13501-1
B2 / Class E

Maximum traffic load
up to 3,000 kg/m²

Compressibility as per DIN EN 12431
c ≤ 1.0 mm

Compressive stress (N/mm²)	Settlement (mm)	Bedding modulus (MN/mm³)
0.0015	0	
0.0059	0.476	12.0
0.0118	0.863	14.0
0.0206	1.284	16.0
0.0294	1.605	18.0
0.0118	1.066	11.0

Performance and evaluation of test as per DIN 18134, sample measurements and testing facility as per DIN EN 826. Tested by Technical University Dresden.



National technical approval no.: Z-23.21-1694
European technical approval no.: ETA-10-0056

BSW

Impact Noise Reduction **Regupol®** sound 47 as per ISO 140-8

Measurement of the impact noise reduction, provided by a floor covering on a solid standard floor under test conditions

Description of the test object

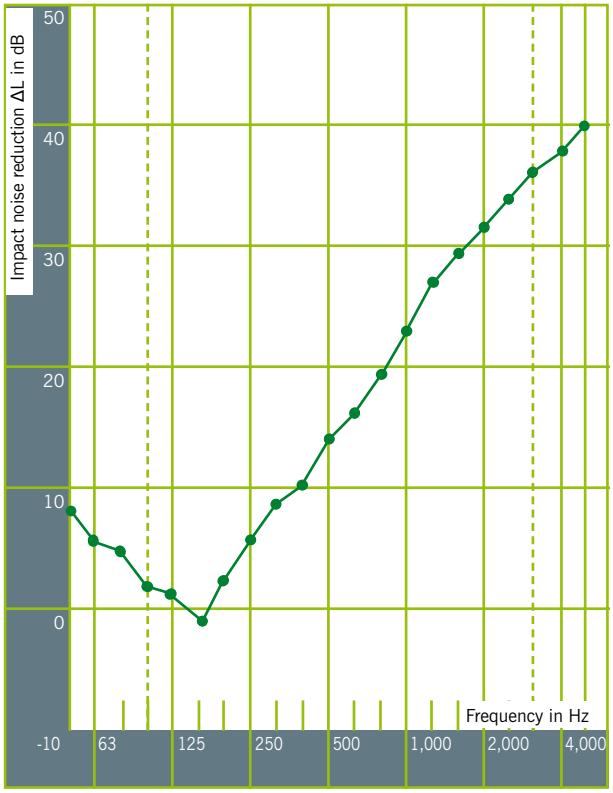
– 68 mm concrete screed
– 0.20 mm PE foil
– 8 mm screed insulation mat, **Regupol® sound 47** (dimpled on one side)
– mean value of dynamic rigidity as per DIN EN 29052-1, s' ≈ 47 MN/m³
– 8 mm perimeter screed strip (foamed PE foil)
– 140 mm raw ceiling

Basis weight	approx. 135 kg/m²
Setting time	552 h
Air temperature in the test rooms	21 °C
Humidity in the test rooms	56 %
Volume of reception room	54.2 m³

Impact noise reduction improvement as per ISO 717-2

$\Delta L_w \geq 20$ dB $\quad C_{I,\Delta} = -12$ dB $\quad C_{I,r} = 1$ dB

The results refer only to the tested structure.



MPA NRW
Materialprüfungsamt Nordrhein-Westfalen
geprüft
Nr.: 420001705

Tested by the MPA (German materials testing agency).

Test for obtaining the national technical approval

on 05.12.2005
MPA NRW
44285 Dortmund
Germany
Phone +49 (0)231 45020
Fax +49 (0)231 458 549

We will be pleased to send you the complete test report no. 420001705 upon request.

	Frequency Hz	$L_{n,}$ raw ceiling without test set-up ⅓ octave dB	$L_{n,}$ raw ceiling with test set-up ⅓ octave dB	ΔL ⅓ octave dB
	50	70.2	61.7	8.5
	63	64.2	58.7	5.5
	80	66.4	61.7	4.7
Frequency range for the rating as per ISO 717-2	100	58.9	57.4	1.5
	125	64.3	63.2	1.1
	160	66.5	67.5	-1.0
	200	68.8	66.1	2.7
	250	69.0	63.0	6.0
	315	68.9	60.0	8.9
	400	69.5	59.4	10.1
	500	70.1	55.8	14.3
	630	69.9	53.5	16.4
	800	69.7	50.3	19.4
	1,000	70.8	47.5	23.3
	1,250	71.3	43.9	27.4
	1,600	71.4	41.7	29.7
	2,000	71.0	39.3	31.7
	2,500	70.9	36.8	34.1
	3,150	70.0	33.7	36.3
	4,000	68.6	30.6	38.0
	5,000	65.9	25.9	40.0

Impact Sound Insulation Under Screed

Largely rot-, moisture-, age- and deformation-resistant, permanently elastic

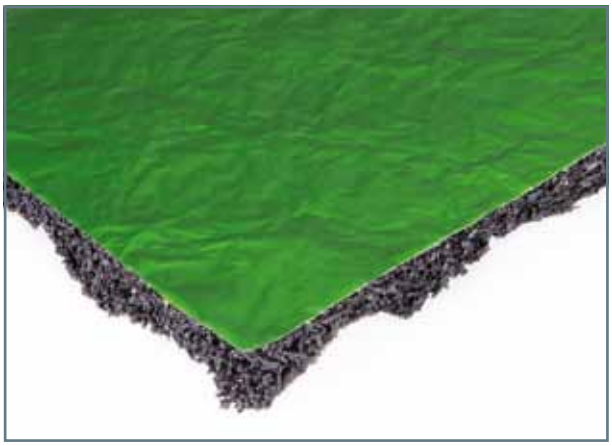
Material
PU-bonded rubber fibres

Standard delivery form
1,200 x 1,000 x 17 mm, 60 m² per pallet

Temperature resistance
from –20 °C to +80 °C

Colour
Anthracite

Upper side laminated with green aluminium foil.



Regupol® sound 17, dimpled on underside

Physical Data

weighted impact noise reduction as per ISO 717-2
$\Delta L_w \geq 26$ dB

Mean value for dynamic rigidity as per DIN EN 29052-1
s' ≈ 17 MN/m³

Thermal conductivity
λ = 0.08 W/mK

Thermal resistance
R = 0.2162 m²K/W

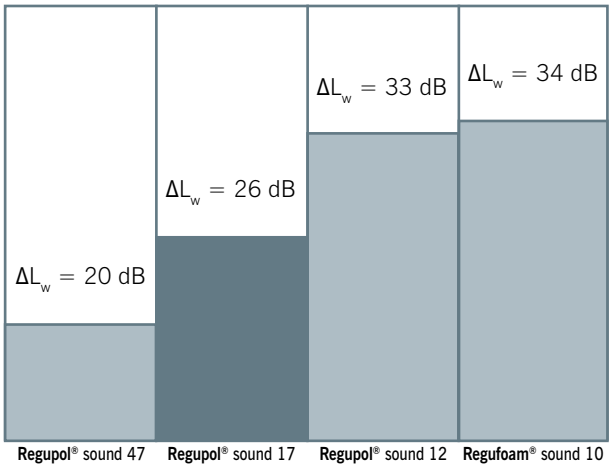
Fire classification according to DIN 4102/DIN EN 13501-1
B2 / Class E

Maximum traffic load
up to 5,000 kg/m²

Compressiblility as per DIN EN 12431
c ≤ 2.0 mm

Compressive stress (N/mm²)	Settlement (mm)	Bedding modulus (N/mm³)
0.0025	0	0
0.0098	1.4	7.0
0.0196	2.6	8.0
0.0343	3.9	9.0
0.0490	4.7	10.0
0.0196	3.2	6.0

Performance and evaluation of test as per DIN 18134, sample measurements and testing facility as per DIN EN 826. Tested by Technical University Dresden.



National technical approval no.: Z-23.21-1741
European technical approval no.: ETA-10-0057

BSW

Impact Noise Reduction **Regupol®** sound 17 as per ISO 140-8

Measurement of the impact noise reduction, provided by a floor covering on a solid standard floor under test conditions

Description of the test object

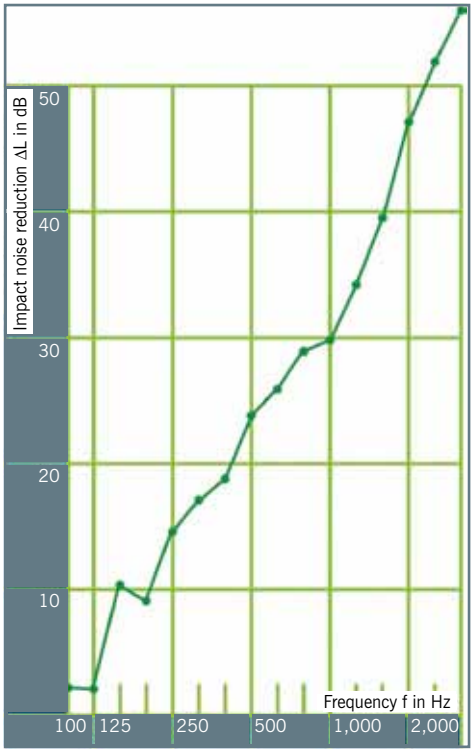
– 28 mm cast stone
– approx. 4 mm thin-set mortar
– approx. 90 mm screed
– 0.25 mm PE foil
– 17 mm screed insulation mat, **Regupol® sound 17**, single layer
– mean value of dynamic rigidity as per DIN EN 29052-1, s' ≈ 17 MN/m³
– length-related flow resistance as per EN 29053:
– r = 8088 Pa s/m²
– 150 mm reinforced concrete
– perimeter strip made of mineral fibreboards, 15 mm thick
– mass per unit area of the floor covering 240 kg/m²

Mass per unit area:	600 kg/m²
Test surface area:	16.9 m²
Test rooms – volume of reception room:	V_e = 51.3 m³
Condition:	empty
Type:	laboratory

Impact noise reduction improvement as per ISO 717-2

$\Delta L_w \geq 26$ dB $\quad C_{I,\Delta} = -13$ dB $\quad \Delta L_{lin} = 13$ dB

The results refer only to the tested structure.



Frequency Hz	$L_{n,}$ raw ceiling ⅓ octave dB	ΔL ⅓ octave dB
100	57.5	2.2
125	60.3	2.1
160	60.7	10.1
200	61.6	9.1
250	61.5	14.6
315	63.8	17.1
400	62.1	18.8
500	63.3	23.8
630	63.3	25.9
800	64.4	28.9
1,000	65.6	29.8
1,250	66.4	34.2
1,600	66.7	39.5
2,000	66.7	47.1
2,500	66.6	51.9
3,150	67.2	56.0

Qualification test I for DIN 4109 on 05.05.1999

Publication of the results is authorised by the Ingenieurgesellschaft für Technische Akustik mbH
Max-Planck-Ring 49
65205 Wiesbaden
Germany
Phone +49 (0)6122 956 10
Fax +49 (0)6122 956 161

We will be pleased to send you the complete test report no. 0070.99-P 57 upon request.

Impact Sound Insulation Under Screed

Largely rot-, moisture-, age- and deformation-resistant, permanentley elastic, but protect against large volumes of water.

Material
PUR-Elastomerverbund

Standard delivery form
1,200 x 1,000 x 17 mm, 60 m² per pallet

Temperature resistance
from –20 °C to +80 °C

Colour
brown-beige, dark particles

Upper side laminated with green aluminium foil.

Regupol® sound 12, dimpled on underside

Physical Data

weighted impact noise reduction as per ISO 717-2
$\Delta L_w \geq 33$ dB

Mean value for dynamic rigidity as per DIN EN 29052-1
s' ≈ 12 MN/m³

Thermal conductivity
λ = 0.0063 W/mK

Thermal resistance
R = 0.289 m²K/W

Fire classification according to DIN 4102/DIN EN 13501-1
B 2 / Class E

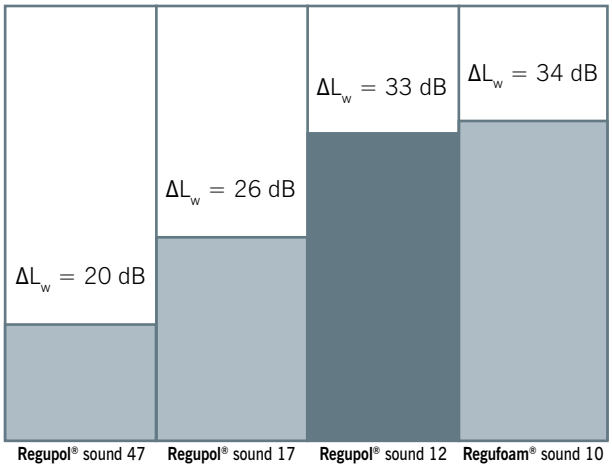
Maximum traffic load
up to 3,000 kg/m²

Compressibility as per DIN EN 12431
c ≤ 2.0 mm

National technical approval and European technical approval are submitted.

Compressive stress (N/mm²)	Settlement (mm)	Bedding modulus (MN/mm³)
0.005	2.1	2.8
0.010	3.2	3.1
0.020	4.5	4.5
0.025	4.9	5.1
0.030	5.3	5.7
0.020	4.7	4.3

Performance and evaluation of test as per DIN 18134, sample measurements and testing facility as per DIN EN 826.



Impact Noise Reduction **Regupol®** sound 12 as per ISO 10140-3

Measurement of the impact noise reduction, provided by a floor covering on a solid standard floor under test conditions

Description of the test object

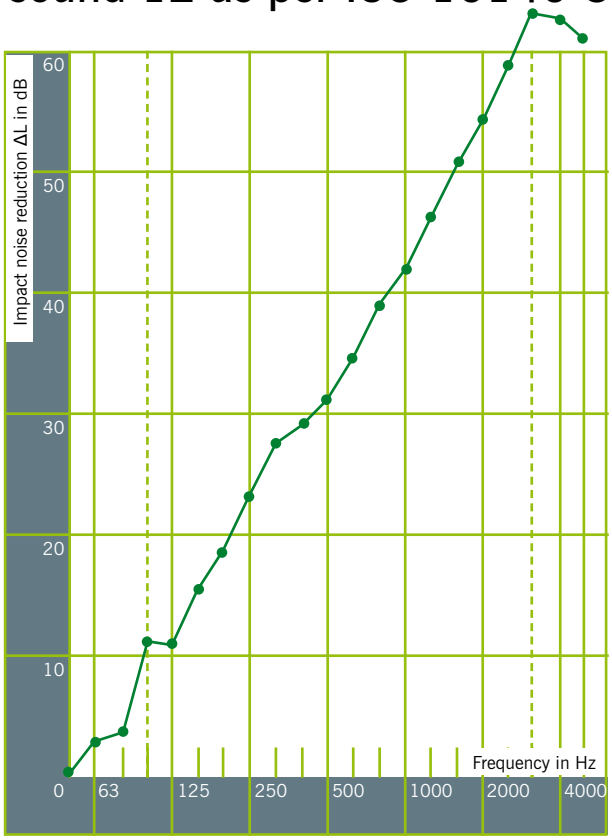
– 160 mm raw ceiling
– 17 mm **Regupol® sound 12** screed insulation mat
– 0.25 mm PE-foil
– 80 mm screed
– total thickness 255 mm
– mean value of dynamic rigidity as per DIN EN 29052-1, s' ≈ 12 MN/m³

Mass per unit area :	581.6 kg/m²
Test surface area:	4.0 x 5.0 = 20.0 m²
Volume of test rooms:	V_S = 54 m³, V_E = 62 m³
Air temperature in test rooms:	21 °C
Water curing:	> 21 days

Impact noise reduction improvement as per ISO 717-2

$\Delta L_w \geq 33$ dB $\quad C_{I,\Delta} = -12$ dB

The results refer only to the tested structure.



Frequency Hz	$L_{n,}$ raw ceiling ⅓ octave dB	ΔL ⅓ octave dB
100	66.1	11.7
125	62.8	11.5
160	68.1	15.3
200	69.0	18.5
250	70.0	23.3
315	71.4	27.0
400	70.4	29.0
500	71.4	31.6
630	71.2	34.6
800	72.4	39.0
1000	72.0	42.3
1250	72.6	46.9
1600	72.9	50.5
2000	72.0	54.8
2500	71.6	58.7
3150	70.9	63.0

ROSENHEIM

Qualification test for DIN 4109 on 02.08.2012

Publication of the results is authorised by ift Rosenheim GmbH
Theodor-Gietl-Str. 7-9
83026 Rosenheim
Germany
Phone +49 (0)8031 261-0
Fax +49 (0)8031 261-290

We will be pleased to send you the complete test report no. 12-001691-PR01 (PBX5.1-F03-04-de-01) upon request.

Impact Sound Insulation Under Screed

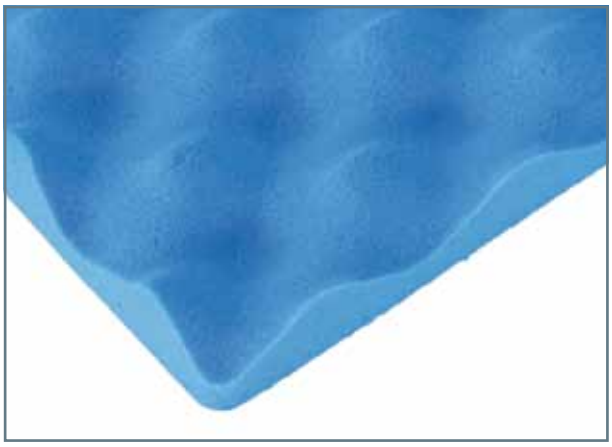
Largely rot-, moisture-, age- and deformation-resistant, permanentley elastic, but protect against large volumes of water.

Material
Mixed-cell polyurethane foam

Standard delivery form
1,500 x 1,100 x 17 mm, 198 m² per pallet

Temperature resistance
from –20 °C to +80 °C

Colour
light blue



Regufoam® sound 10, dimpled on underside

Physical Data

weighted impact noise reduction as per ISO 717-2
$\Delta L_w \geq 34$ dB

Mean value for dynamic rigidity as per DIN EN 29052-1
s' ≈ 10 MN/m³

Thermal conductivity
λ = 0.046 W/mK

Thermal resistance
R = 0.331 m²K/W

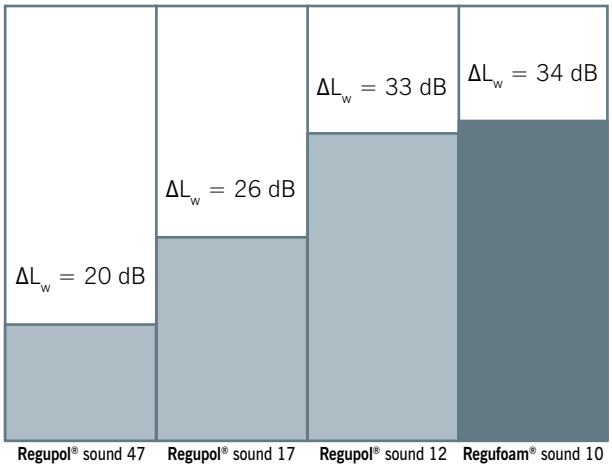
Fire classification according to DIN 4102/DIN EN 13501-1
B 2 / Class E

Maximum traffic load
up to 2,500 kg/m²

Compressibility as per DIN EN 12431
c ≤ 2.0 mm, deformation-resistant, compressible volume

Compressive stress (N/mm²)	Settlement (mm)	Bedding modulus (MN/m³)
0.005	3.4	1.5
0.010	4.9	2.1
0.015	5.9	2.5
0.020	7.0	2.8
0.025	8.1	3.1
0.015	6.2	2.4

Performance and evaluation of test as per DIN 18134, sample measurements and testing facility as per DIN EN 826.



Regupol® sound 47 **Regupol®** sound 17 **Regupol®** sound 12 **Regufoam®** sound 10

National technical approval and European technical approval are submitted.

BSW

Impact Noise Reduction **Regufoam®** sound 10 as per ISO 10140-3

Measurement of the impact noise reduction, provided by a floor covering on a solid standard floor under test conditions

Description of the test object

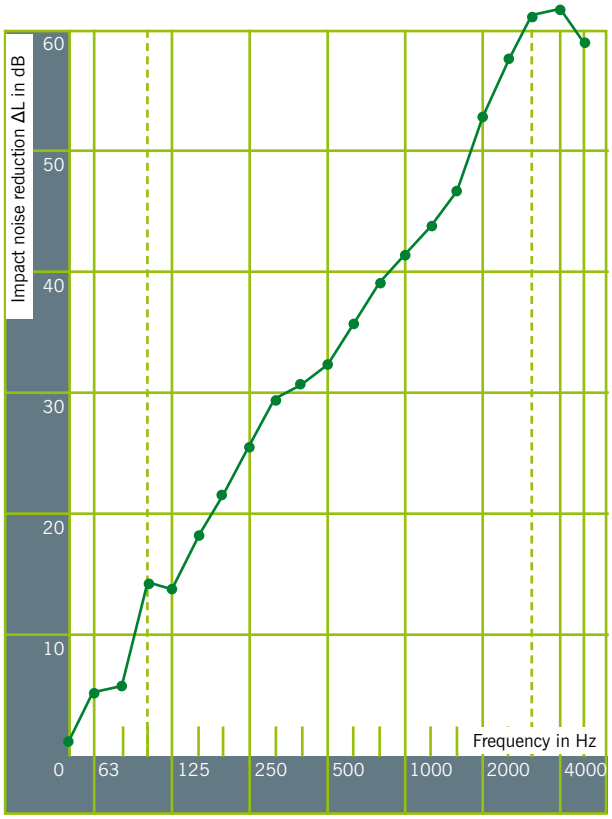
– 160 mm raw ceiling
– 17 mm **Regufoam® sound 10** screed insulation mat
– 0.25 mm PE-foil
– 80 mm screed
– total thickness 257 mm
– mean value of dynamic rigidity as per DIN EN 29052-1, s' ≈ 10 MN/m³

Mass per unit area:	581.6 kg/m²
Test surface area S:	4.0 x 5.0 = 20.0 m²
Volume of test rooms:	V_S = 54 m³, V_E = 62 m³
Air temperature in test rooms:	21 °C
Water curing:	> 21 days

Impact noise reduction improvement as per ISO 717-2

$\Delta L_w \geq 34$ dB $\quad C_{I,\Delta} = -13$ dB

The results refer only to the tested structure.



Frequency Hz	$L_{n,}$ raw ceiling ⅓ octave dB	ΔL ⅓ octave dB
100	66.1	14.3
125	62.8	13.9
160	68.1	18.6
200	69.0	21.7
250	70.0	25.7
315	71.4	29.4
400	70.4	30.5
500	71.4	32.6
630	71.2	35.6
800	72.4	39.2
1000	72.0	41.0
1250	72.6	43.9
1600	72.9	47.5
2000	72.0	52.4
2500	71.6	56.9
3150	70.9	60.8

ROSENHEIM

Qualification test for DIN 4109 on 01.08.2012

Publication of the results is authorised by ift Rosenheim GmbH
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We will be pleased to send you the complete test report no. 12-001691-PR01 (PBX3.1-F03-04-de-01) upon request.

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