KRAIBURG RELASTEC

VIBRATION ISOLATION IN THE BUILDING INDUSTRY

made from high-quality elastomer granules

DAMTEC® VIBRA SERIES

DAMTEC®

EN #1 | 2023

reduction of vibrations and oscillations

permanently elastic

waterproofed and rot-proofed

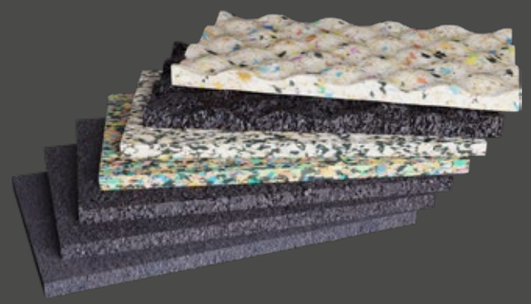
fast and easy installation

outstanding compressive strength and load-bearing performance

very low emission; very environment-friendly, recycled rubber can be recycled again

Why vibration isolation?
Industry, transport and residential construction increasingly coming closer together. This proximity results in impairments due to noise and vibrations.

Which problems occur?
Without appropriate measures, buildings, the people who live in them, machines and machine foundations or sensitive components are defenceless against vibrations from the immediate surroundings.
Undesirable or excessively powerful vibrations can also occur in buildings or industrial plant. Secondary airborne noise also increases, since structural elements such as ceilings or walls are also stimulated.



Specifically to solve the vibration problems encountered in the construction industry, KRAIBURG Relastec can offer DAMTEC® vibra, a range of products made from special kinds of rubber granulate.
This wide range of products helps architects and specialist planners to accurately plan and calculate their projects in terms of technical requirements and financial viability.

The material
DAMTEC® vibra is a series of acoustic insulation mats made of rubber granulate made from recyclate, some of which is sourced from brand-new rubber remnants from the automotive and medical industry, manufactured by KRAIBURG Relastec in Germany.
For lower loads, these mats are smooth on the upper side and ribbed on the underside. This geometry generates additional softness, further enhancing the elasticity of the rubber. For higher loads, both sides are smooth. A targeted mixture of foamed and unfoamed rubber granulates creates an optimum balance for the anticipated load levels.

The choice of products is based on the anticipated compression stress level in the material. Optimum vibration damping and suppression of structure-borne sound transmission can be guaranteed by the scope for using different thicknesses of product and/or the option of laying two or three layers of product.

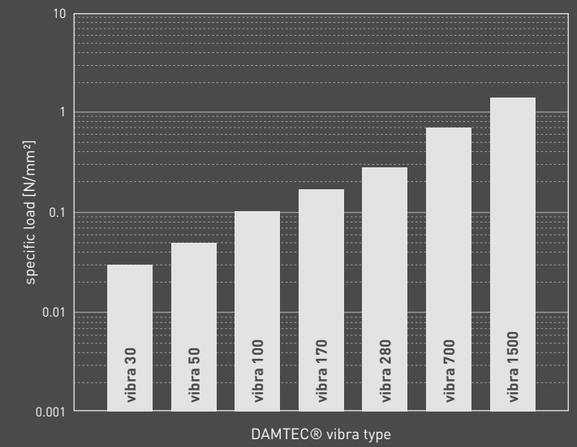
Application examples
The illustration below shows a few typical examples of applications for DAMTEC® vibra products.

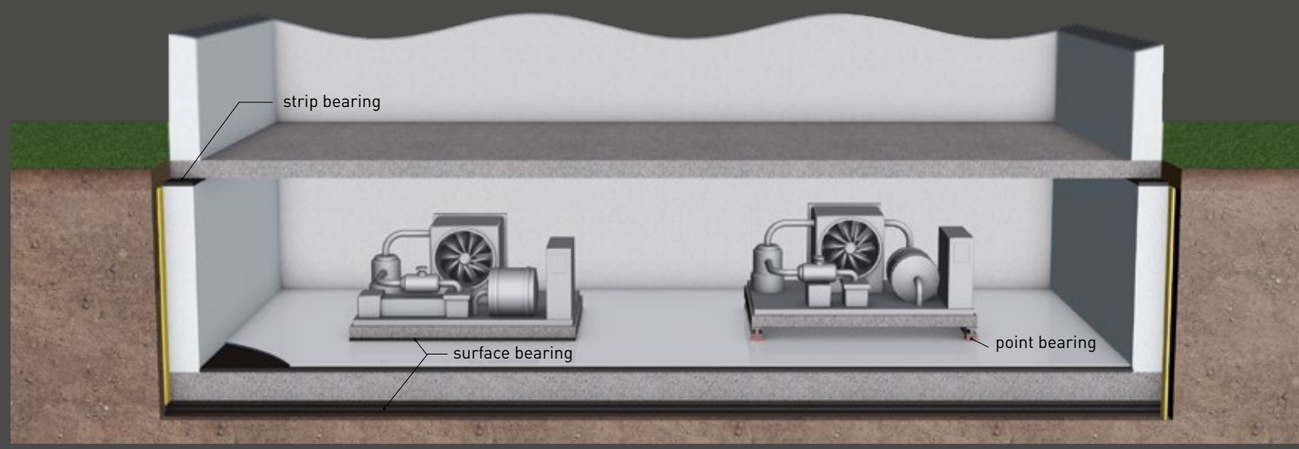
public buildings, convention centres

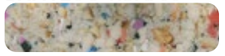
production halls

hotels

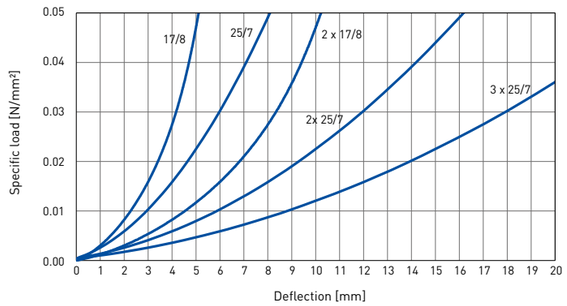
apartments





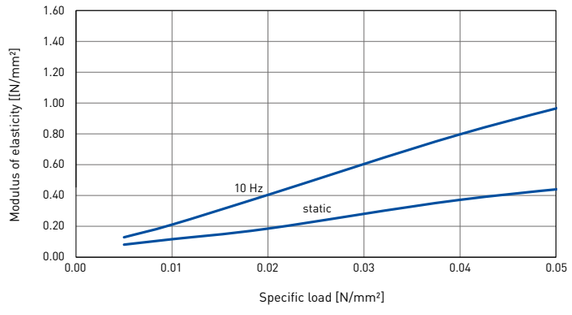
	Load peak [N/mm²]	Thickness [mm]	Deflection [mm]	Natural frequency (1 layer) [Hz]	Natural frequency (2 layers) [Hz]
DAMTEC® vibra 30			[at 0.03 N/mm²]		
	0.07	17/8	4.2	17-25	12-20
		25/7	6.1	14-25	10-20
DAMTEC® vibra 50			[at 0.05 N/mm²]		
	0.15	17/8	3.9	18-25	13-20
		25/7	5.9	15-25	11-20
DAMTEC® vibra 100			[at 0.1 N/mm²]		
	0.30	15	3,0	14-25	10-20
		20	4,0	12-25	9-18
		30	6,0	10-20	7-18
DAMTEC® vibra 170			[at 0.17 N/mm²]		
	0.70	15	3.0	15-30	11-25
		20	4.0	13-30	10-20
		30	6.0	11-25	8-18
DAMTEC® vibra 280			[at 0.28 N/mm²]		
	1.50	15	3.0	19-30	14-30
		20	4.0	17-30	12-25
		30	6.0	14-30	10-20
DAMTEC® vibra 700			[at 0.7 N/mm²]		
	3.00	15	3.2	21-35	15-30
		20	4.3	18-30	13-25
DAMTEC® vibra 1500			[at 1.5 N/mm²]		
	4.00	10	1.2	25-35	17-30

	DAMTEC® vibra 30	DAMTEC® vibra 50	DAMTEC® vibra 100	DAMTEC® vibra 170	DAMTEC® vibra 280	DAMTEC® vibra 700	DAMTEC® vibra 1500
Thicknesses	17/8 mm 25/7 mm	17/8 mm 25/7 mm	15, 20, 30 mm	15, 20, 30 mm	15, 20, 30 mm	15, 20 mm	10 mm
Roll width	1,250 mm	1,250 mm	1,250 mm	1,250 mm	1,250 mm	1,250 mm	1,250 mm
Roll length	8,000 mm (17/8 mm); 4,000 mm (25/7 mm)	8,000 mm (17/8 mm); 4,000 mm (25/7 mm)	15/**1** | 20/**1** | 30/**1** mm/**m**	15/**1** | 20/**1** | 30/**1** mm/**m**	15/**1** | 20/**1** | 30/**1** mm/**m**	15/**1** | 20/**1** mm/**m**	10/**6** mm/**m**
Density	300 - 400 kg/m³	500 - 600 kg/m³	330 - 430 kg/m³	340 - 440 kg/m³	600 - 700 kg/m³	800 - 900 kg/m³	950 - 1,050 kg/m³
Maximum pressure	0.03 N/mm²	0.05 N/mm²	0.10 N/mm²	0.17 N/mm²	0.28 N/mm²	0.7 N/mm²	1.5 N/mm²
Tensile strength	0.15 - 0.65 N/mm²	> 0.2 N/mm²	0.15 - 0.7 N/mm²	0.15 - 0.55 N/mm²	> 0.5 N/mm²	> 0.5 N/mm²	> 1.5 N/mm²
Elongation at break	30 - 60 %	> 35 %	35 - 75 %	20 - 50 %	> 50 %	> 50 %	> 80 %



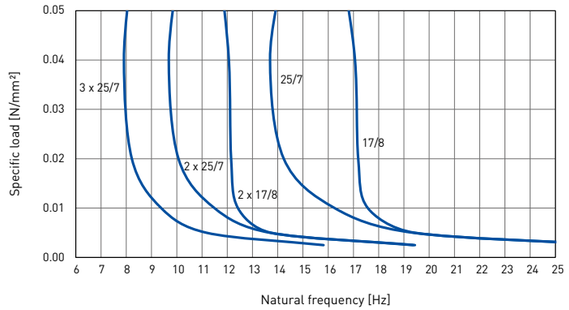
Static load deflection

This diagram illustrates the static load deflection curve of DAMTEC® vibra 30 material for a compression test.
There is no specific dynamic working range for these materials. The total loading, static plus dynamic, should be within the application range. The special feature of rubber granulate is that the products can be subjected to overloads without having any negative influence on the properties of this material.



Dynamic properties

This diagram illustrates the dependent relationship at 10 Hz between loading level and the dynamic bedding modulus.
The bedding modulus shows a linear progression. Investigations have shown that, even when spring compression of 90% is applied, the insulation action can be maintained almost completely.



Natural frequency

This diagram shows the natural frequency calculated for a system comprising a compact mass and an elastic bearing made of DAMTEC® vibra.
Through the selection of a suitable profile and possible laminar structure, the natural frequency can be set in the desired manner.

Service

We will be glad to help you in choosing the right product based on the following requirements:
- Existing loads
- Available surface and overall heights
- Vibration-related specifications

Detailed data sheets of all types

www.kraiburg-relastec.com/damtec/downloads


DC Tower, Vienna, Austria


Palladium Tower, Istanbul, Turkey


Nurol Tower, Istanbul, Turkey


University Leipzig, Germany


Lufthansa training center, Seeheim, Germany


University Erlangen, Germany

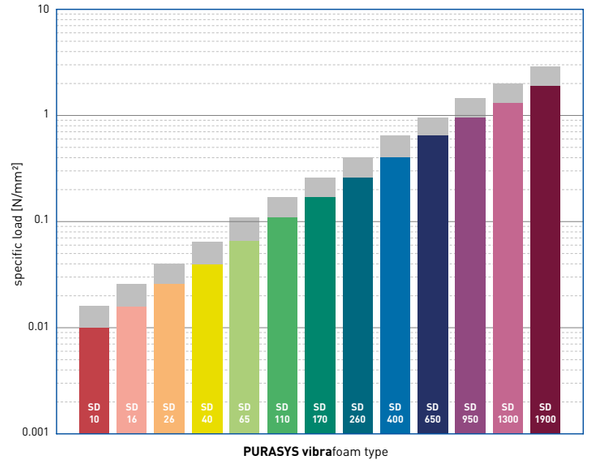
Hilton Hotel Istanbul, Turkey

PURASYS vibrafoam

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

For almost every application, there are 13 basic types of PURASYS **vibra**foam available, ranging from SD 10 to SD 1900. The desired requirements can be achieved easily through an appropriate selection of PURASYS **vibra**foam types, support surface area and construction height.

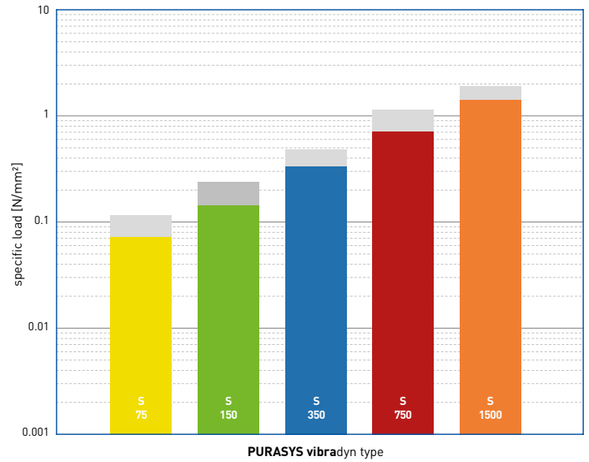
PURASYS **vibra**foam is available as mats for maximum floor coverage, but can also be obtained in the form of technical moulded parts.



PURASYS vibradyn

PURASYS **vibra**dyn is a closed-cell elastomer and it is made of a special kind of polyetherurethane. Thanks to its structure, this material absorbs almost no fluids and can therefore be used in pressing groundwater.

There are 5 basic types of PURASYS **vibra**dyn, S 75 to S 1500, to suit virtually any application scenario. The desired requirements can be achieved easily through an appropriate selection of PURASYS **vibra**dyn types, support surface area and construction height.



KRAIBURG PURASYS

SUSTAINABILITY

Corporate Carbon Footprint, Product Carbon Footprint, Energy Management, Social and economic sustainability at KRAIBURG Relastec

Recycling of up to 60,000 t material

Every year, we process and recycle up to 60,000 tons of old tyres, closed-cell rubber foams and rubber production scrap.

Reduction of CO_2 emissions

By using recycled rubber granulate, we save more than 130,000 tonnes of CO_2 emissions per year compared to virgin rubber.

Corporate Carbon Footprint

The CCF was developed in accordance with the Greenhouse Gas Protocol audit.

Coming soon: Product Carbon Footprint

The PCF is measured in accordance with ISO 14067 and ISO 14040/44.

Energy management according to ISO 50001

Our energy management system is in accordance with ISO 50001 standards. Energy-relevant topics are taken into account in all processes of the organisation.

Bronze Rating

The ecovadis rating covers numerous management systems, including environmental impact and sustainable procurement. More information: www.ecovadis.com

Member of NEW LIFE initiative

The declared aim of NEW LIFE is to demonstrate the advantages of recycled products from End-of-Life Tires (ELT) to the media, politicians and the general public and to motivate them to act sustainably.
More information:
www.initiative-new-life.de/en

Social sustainability

Acting in accordance with our values such as equal opportunities, social responsibility, respectful treatment and transparency, is our foundation for practicing social sustainability.

Economic sustainability

As a family business, KRAIBURG Holding pursues a long-term strategy. Profits generated are used to a significant extent to make our holistic business model ever more efficient and future-proof.

CORPORATE CULTURE

Defined values, social norms and guidelines, for common action and cooperation inside and outside KRAIBURG Relastec.

Equal opportunities

We stand for equal opportunity, diversity, inclusion and religious diversity.

Social responsibility

Fair pay, collective bargaining, further training, career development, work-life integration.

Respect

We are honest, reliable, respectful and trustworthy towards our colleagues and partners.

Strong decision-making powers

We ensure speed in process handling, faster technology optimisationsand lean processes.

Responsible for our actions

We take responsibility for all decisions and results. Error acceptance and the strong will to correct and learn from them are firmly anchored in our culture.

Transparency

We practice open, transparent cooperation both inside and outside the company.

WHAT SETS US APART

Personal contact persons

We do not hide behind support hotlines and contact forms. With us, you have personal, competent contact persons.

Product quality

Our products meet the highest quality standards. They are durable, a perfect fit and made from high-quality raw materials.

Innovation and product design

We continuously develop new products according to the requirements of our customers and the market.

Internationality

With an export quota of over 50%, we have already exported our products to over 100 countries.

Easy complaint management

Transparent and optimised processes ensure rapid processing.

Flexibility with customer requirements

We offer our partners customised options for packaging, labelling and delivery, packaging, labelling and delivery.

Long-term relationships

We maintain long-term relationships with our customers and suppliers based on mutual respect and fairness.

Marketing support

We provide you with the best possible support in the form of images or in the design of your documents.

DAMTEC®

Acoustics and Vibration Isolation
made from rubber granules and polyurethane

KRAIBURG Relastec GmbH & Co.KG
Fuchsberger Straße 4 · D-29410 Salzwedel

Sales:
Tel. +49 (0) 8683 701 -124
Fax +49 (0) 8683 701 -124
damtec@kraiburg-relastec.com
www.kraiburg-relastec.com/damtec

Made in Germany

quality austria SYSTEMZERTIFIZIERT
ISO 9001:2015 NR. 00186/0
ISO 50001:2018 NR. 00070/0

CERTIFIED IQNet MANAGEMENT SYSTEM

U.S. GREEN BUILDING COUNCIL MEMBER

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