

# Vibratec Akustikprodukter AB

## Vibration Regufoam<sup>®</sup>



*Vibratec*<sup>®</sup>  
akustikprodukter

## 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

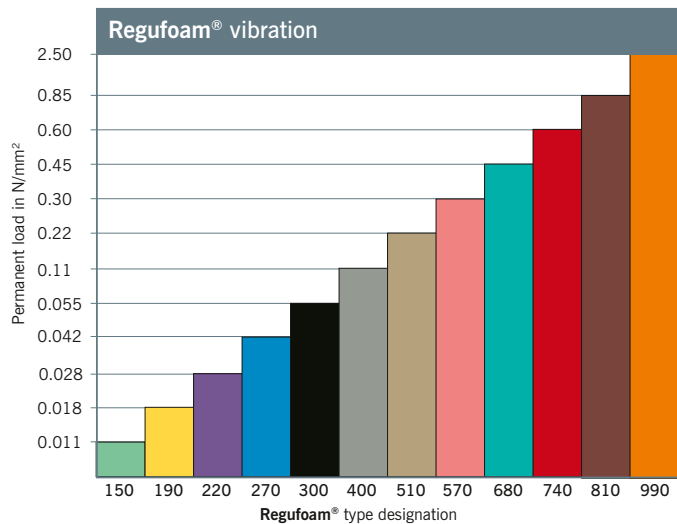
Length: 1,500 mm

Width: 1,000 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
Permanent 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 <sup>1</sup> 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 <sup>2</sup>	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 <sup>3</sup> 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 2.9	3.8 to 4.1	4.3 to 5.9	5.4 to 8.0	20.0 to 78.0
Dynamic modulus of elasticity <sup>4</sup> N/mm²	0.15 to 0.38	0.25 to 0.55	0.35 to 0.72	0.60 to 1.05	0.68 to 1.25	1.2 to 2.0	2.2 to 3.7	5.3 to 6.5	7.0 to 10.0	8.9 to 13.0	11.0 to 16.5	41.0 to 160.0
Compression hardness <sup>5</sup> 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 on frequency, load and thickness.
- 5 Measurement based on DIN EN ISO 3386-2; compressive stress at 25 % deformation, depending on thickness.

Technical services and offers based on these are subject to our General Terms and Conditions of sale. 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. The technical information given in the documents are guideline values. They are liable to manufacturing tolerances, which may vary depending on the type of underlying properties.

## 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/mm<sup>2</sup> to 2.50 N/mm<sup>2</sup>. 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.



