Vibratec Akustikprodukter AB Vibration Regufoam®



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, 300Thickness: 12 and 25 mm, special thicknesses on requestLength:5,000 mm, special lengths availableWidth:1,500 mm

Plates for types 400, 510, 570, 680, 740, 810, 990

Thickness: 12 and 25 mm, special thicknesses on requestLength:1,500 mmWidth:1,000 mm

0.60 0.45 0.30 0.22 0.11 0.055 0.042 0.028 0.018 0.011 150 190 220 270 300 400 510 570 680 740 810 990 Regufoam® type designation

Regufoam® vibration

2.50 0.85

load in N/mm²

Permanent

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/mm ²	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/mm ²	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/mm ²	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/mm ²	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 ⁴ N/mm ²	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 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 frequencydependent.

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).

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.

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.

Your partner in noise, vibration and emission control since 1988

Vibratec Akustikprodukter is one of the leading suppliers of noise and vibration reducing products and solutions in Scandinavia. For more than 25 years, our state of the art products and custom made solutions have been recognised for their reliable quality and high performance.

Vibratec Akustikprodukter manufactures a wide range of all-metal, anti- vibration and shock mounts for applications within the offshore and maritime markets. Our heavy duty anti-vibration mounts are well known within the offshore industry, and our engine and cable mounts/wire rope isolators are preferred by naval and maritime industries worldwide.

Vibratec Akustikprodukter also has a substantial stock of anti-vibration and shock mounts (isolators), exhaust gas silencers, compensators (bellows/ expansion joints) and other noise reducing materials, both with all metal and rubber compounds.

Our head office is located on the Blidö island north of Stockholm, Sweden, with independent subsidiaries in Norway, Denmark and Estonia. Our manufacturing plants are located in Sweden, where we have quality management programmes certified according to ISO9001:2008.

Sweden Tel: +46 176 20 78 80 www.vibratec.se info@vibratec.se Norway Tel: +47 33 07 07 50 www.vibratec.no info@vibratec.no Denmark Tel: +45 49 13 22 44 www.vibratec.dk info@vibratec.dk Estonia Tel: +372 56 66 29 93 www.vibratec.ee info@vibratec.ee