

REGUFOAM VIBRATION – MIXED-CELL POLYURETHANE ELASTOMERS

The **REGUFOAM vibration** range is approved by the German building authority and offers a portfolio of twelve product types which can be used in the wide load range between 0.002 N/mm² and 2.500 N/mm². This creates many possibilities to implement an isolation concept for projects in the field of building services and HVAC equipment, machines, pools and gyms, as well as vibration protection for buildings, especially those in close proximity to rail infrastructure.

Our team is by your side to assist you in product selection, planning, conception of installation plans and to provide support during installation and implementation

REGUFOAM vibration is characterized by its outstanding durability. Successfully completed projects and expert opinions document the quality of these materials.

Contact us to share the expert reports.

Possible

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

The technical details, clearly arranged and determined as well as tested, provide a full overview of the load range of the **REGUFOAM vibration** 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 vibration elastomers are largely 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 REGUFOAM vibration elastomers

The **REGUFOAM vibration** products do have a defined load range in which natural frequencies of ≤ 10 Hz can be achieved with thicknesses of 50 mm. Optimal results can be realised in the range of the specified load capacity limit. Exceeding this load limit leads to degressive spring characteristics, though not to material failure. In fact, the rated value for maximum load bearing capacity is 150 to 200 % of the specified load limit.

REGUFOAM vibration elastomers are produced and shipped in rolls. They can be cut to size with a standard utility knife right at the construction site.

REGUFOAM VIBRATION – TECHNICAL DETAILS OVERVIEW

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

Forms of delivery

Rolls for types 150plus to 300plus

Thickness: 12.5 and 25.0 mm

Length: 5,000 mm

Width: 1,500 mm

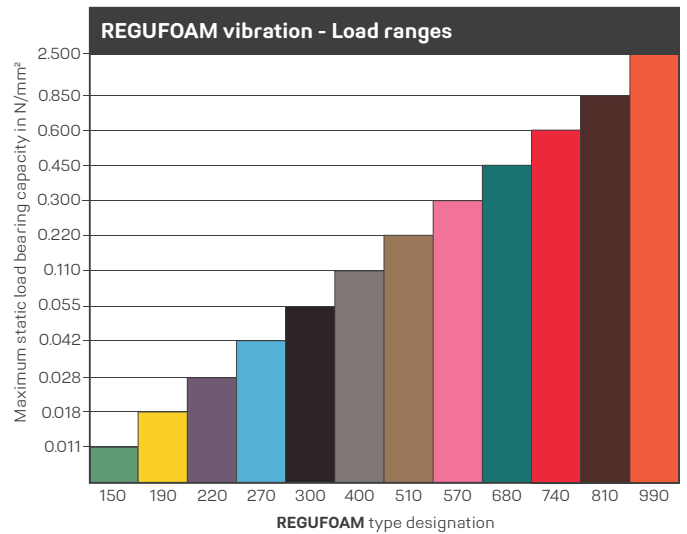
Plates for types 400plus to 990plus

Thickness: 12.5 and 25.0 mm

Length: 1,500 mm

Width: 1,000 mm

Customized strips and pads, self-adhesive versions and special roll lengths available on request.



REGUFOAM vibration colour	150 plus	190 plus	220 plus	270 plus	300 plus	400 plus	510 plus	570 plus	680 plus	740 plus	810 plus	990 plus
Maximum static load bearing capacity N/mm ²	0.011	0.018	0.028	0.042	0.055	0.110	0.220	0.300	0.450	0.600	0.850	2.500
Optimum load range N/mm ²	0.004	0.011	0.018	0.028	0.042	0.055	0.110	0.220	0.300	0.450	0.600	0.850
Tensile strength ¹ N/mm ²	0.3	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 - 0.16	0.10 - 0.25	0.15 - 0.35	0.25 - 0.45	0.35 - 0.58	0.60 - 1.00	1.10 - 1.70	2.60 - 2.90	3.80 - 4.10	4.30 - 5.90	5.40 - 8.00	2000 - 78.00
Dynamic modulus of elasticity ⁴ N/mm ²	0.15 - 0.38	0.25 - 0.55	0.35 - 0.72	0.60 - 1.05	0.68 - 1.25	1.20 - 2.00	2.20 - 3.70	5.30 - 6.50	7.00 - 10.00	8.90 - 13.00	11.00 - 16.50	41.00 - 160.00
Compression hardness ⁵ kPa	14	22	22	63	82	170	330	620	840	1050	1241	3640
Fire behaviour ⁶	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 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.

6 Measurement based on DIN 4102 and DIN EN 13501-1

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.regupol.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. Comment on tolerances: All technical values correspond to our current state of knowledge and are to be understood as reference values only. These values can be subject to considerable variabilities due to production and/or material reasons as well as due to outside influences (temperature, humidity etc.). Thus special agreements on material parameters might be necessary on a case-by-case basis.