

## REGUFOAM Vibration Isolation

REGUFOAM vibration is an elastic polyurethane foam designed for optimal vibration isolation. It is available in twelve different densities and various thicknesses, now including thinner options, offering even more flexibility to suit diverse needs.

### REGUFOAM vibration 510plus

Load range up to  $0.22 \text{ N/mm}^2$ . Depending on load and material thickness, natural frequencies of 8 Hz can be achieved.

## Product Characteristics

### Continuous static load

$0.220 \text{ N/mm}^2$

### Continuous and variable loads/operating load range

0 to  $0.32 \text{ N/mm}^2$

### Peak loads (rare, short-term loads)

up to  $4 \text{ N/mm}^2$

### Standard forms of delivery, ex warehouse

#### Sheets

Thickness: 12.5 and 25 mm are standard, and regularly available off the shelf. Special thicknesses on request

Length: 1500 mm, special lengths available on request

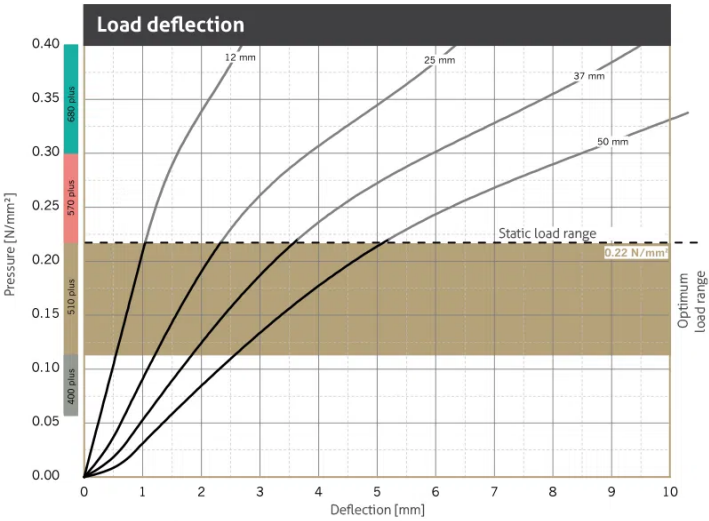
Width: 1000 mm

#### Strips or pads

On request: Die-cutting, water-jet cutting, self-adhesive versions possible

On request we can tailor to your needs and produce 75, 50, 37.5, 25, 12.5, 6 mm all the way down to 2 mm thicknesses.

# Technical Specifications



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 x 300 mm.

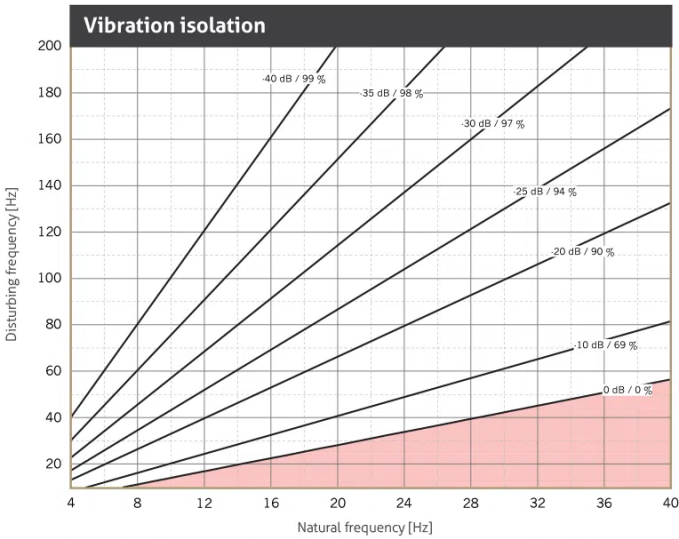
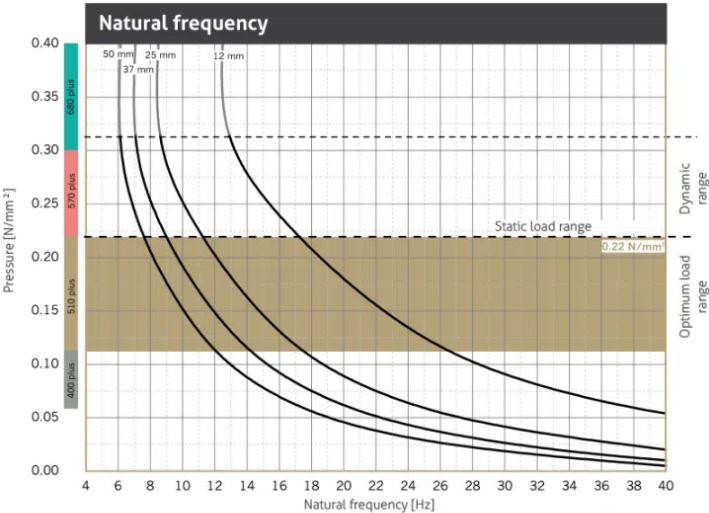
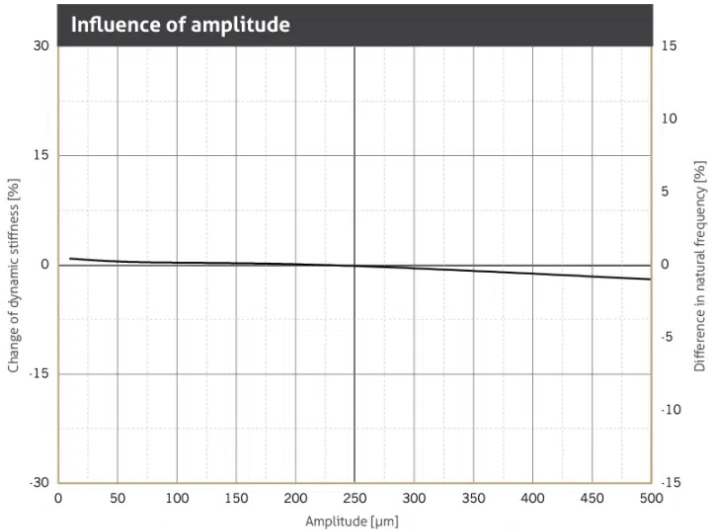


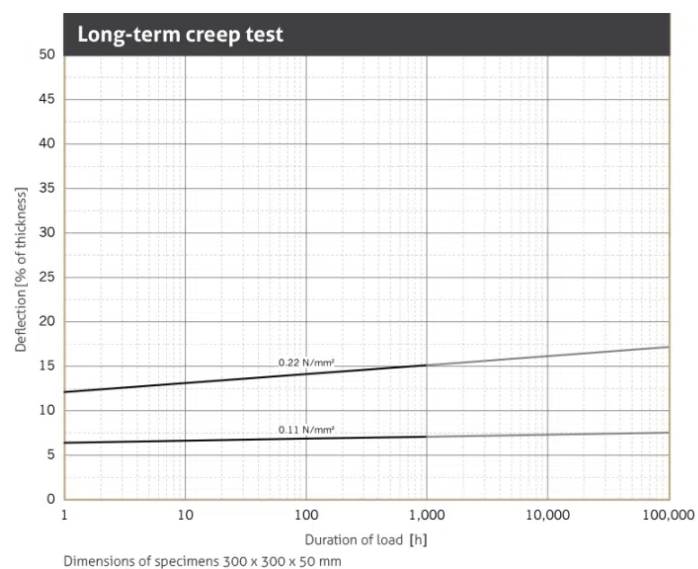
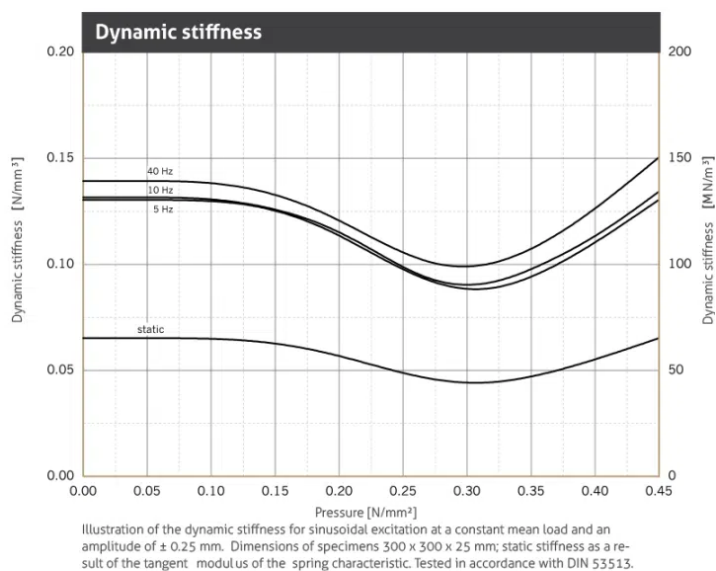
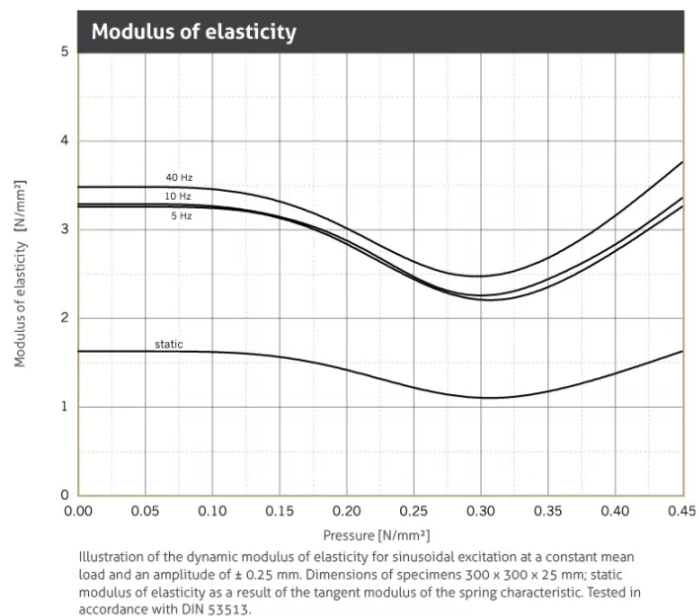
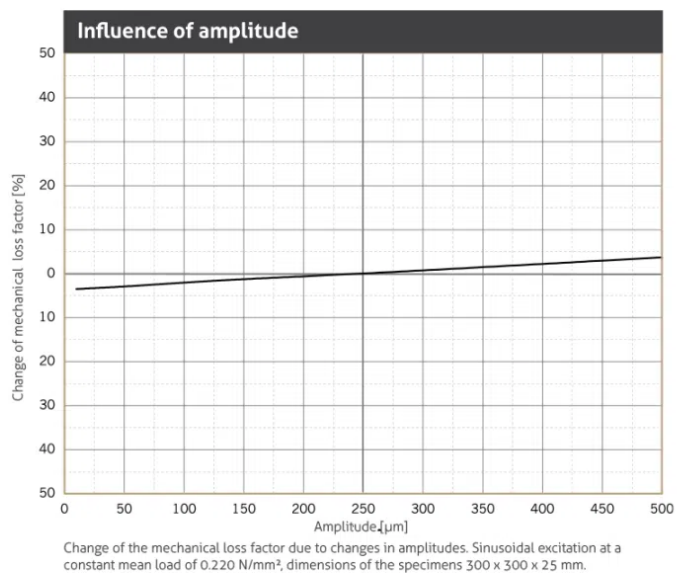
Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **REGUFOAM vibration 510plus**. Parameter: power transmission (insertion loss) in dB, isolation factor in %.



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



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 0.220 N/mm<sup>2</sup>, dimensions of the specimens 300 x 300 x 25 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



## REGUFOAM vibration 510plus

| Physical property             | Norm                       | Result                      | Comment                                                                            |
|-------------------------------|----------------------------|-----------------------------|------------------------------------------------------------------------------------|
| Static modulus of elasticity  | Based on EN 826            | 1.1 - 1.7 N/mm <sup>2</sup> | Tangential modulus, see figure "modulus of elasticity"                             |
| Dynamic modulus of elasticity | Based on DIN 53513         | 2.2 - 3.7 N/mm <sup>2</sup> | 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/mm <sup>2</sup>       |                                                                                    |
| 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                   | B2                          |                                                                                    |
|                               | DIN EN 13501-1             | E                           |                                                                                    |
| Sliding friction              | REGUPOL-laboratory         | 0.7                         | Steel (dry)                                                                        |
|                               | REGUPOL-laboratory         | 0.8                         | 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                                    |



### Contact information

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