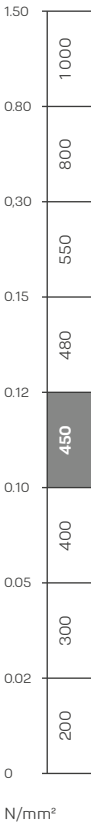
REGUPOL VIBRATION 450

Forms of delivery

Sheets, ex warehouse
Thickness: 25 and 50 mm, special thicknesses available
Length: 1,000 mm
Width: 500 mm

Customized thicknesses available on request.



Technical details

Maximum static load bearing capacity
0.120 N/mm²

Rare, short term peak loads
up to 0.180 N/mm²

Physical property	Norm	Result	Comment
Static modulus of elasticity	Based on EN 826	0.2 - 0.4 N/mm²	Tangential modulus, see figure "modulus of elasticity"
Dynamic modulus of elasticity	Based on DIN 53513	0.45 - 2.70 N/mm²	Depending on frequency, load and thickness, see figure "dynamic stiffness"
Mechanical loss factor	DIN 53513	0.17	Load-, amplitude- and frequency-dependent
Compression set	Based on DIN EN ISO 1856	4.1 %	Measured 30 minutes after decompression with 50 % deformation / 23 °C after 72 hrs
Tensile strength	Based on DIN EN ISO 1798	0.15 N/mm²	
Elongation at break	Based on DIN EN ISO 1798	40 %	
Tear resistance	Based on DIN ISO 34-1	1.9 N/mm	
Fire behaviour	DIN 4102 DIN EN 13501-1	B2 E	
Sliding friction	REGUPOL-laboratory REGUPOL-laboratory	0.5 0.6	Steel (dry) Concrete (dry)
Compression hardness	Based on DIN EN ISO 3386-2	83 kPa	Compressive stress at 25 % deformation test specimen h = 50 mm
Rebound elasticity	Based on DIN EN ISO 8307	42.7 %	dependent on thickness, test specimen h = 50 mm
Force reduction	DIN EN 14904	74 %	dependent on thickness, test specimen h = 50 mm
Ozone resistance	DIN EN ISO 17025	Cracking stage 0	

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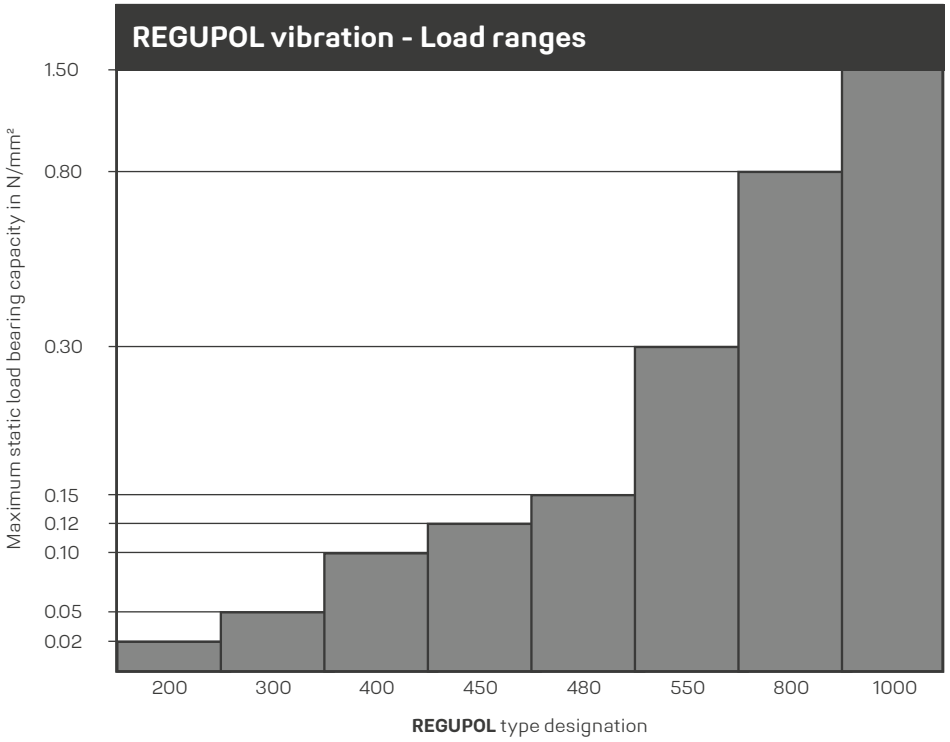
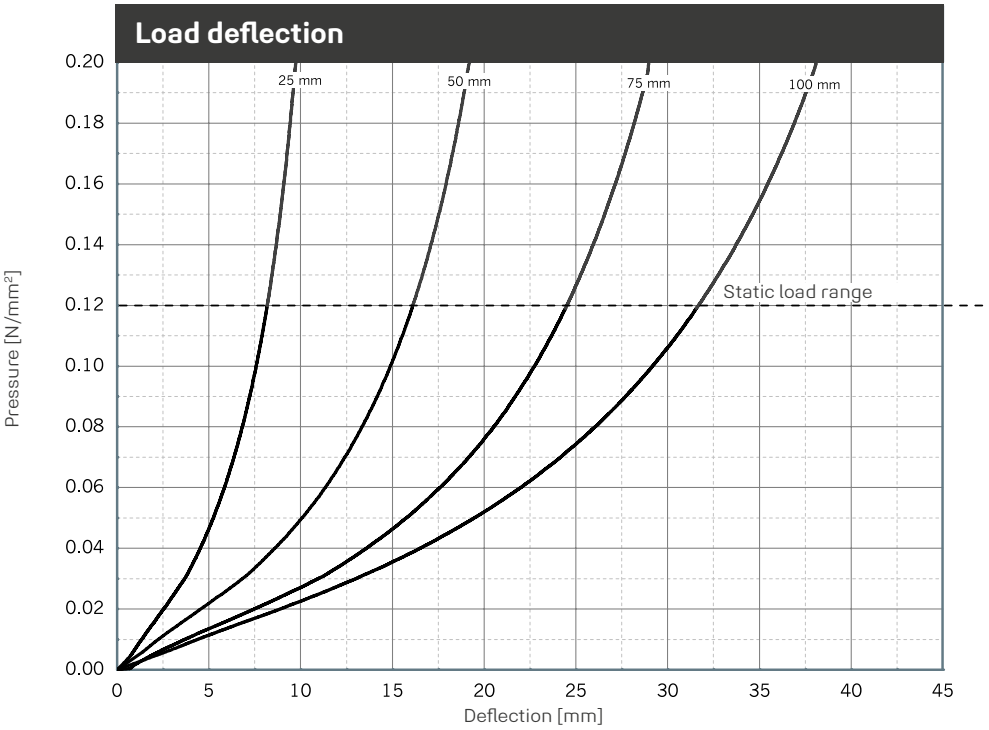




Examination of deflection in accordance to DIN EN 826 between two stiff panels. Illustration based on the third loading. Velocity of loading and unloading 20 seconds. Tested at room temperature. Dimensions of test specimens 300 x 300 mm.

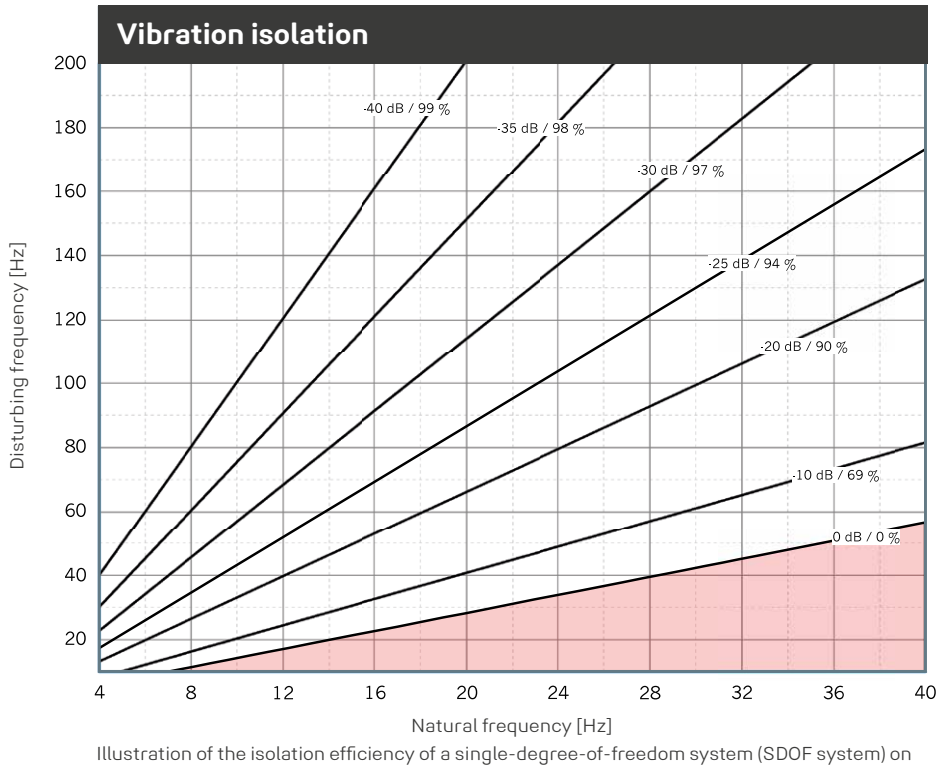
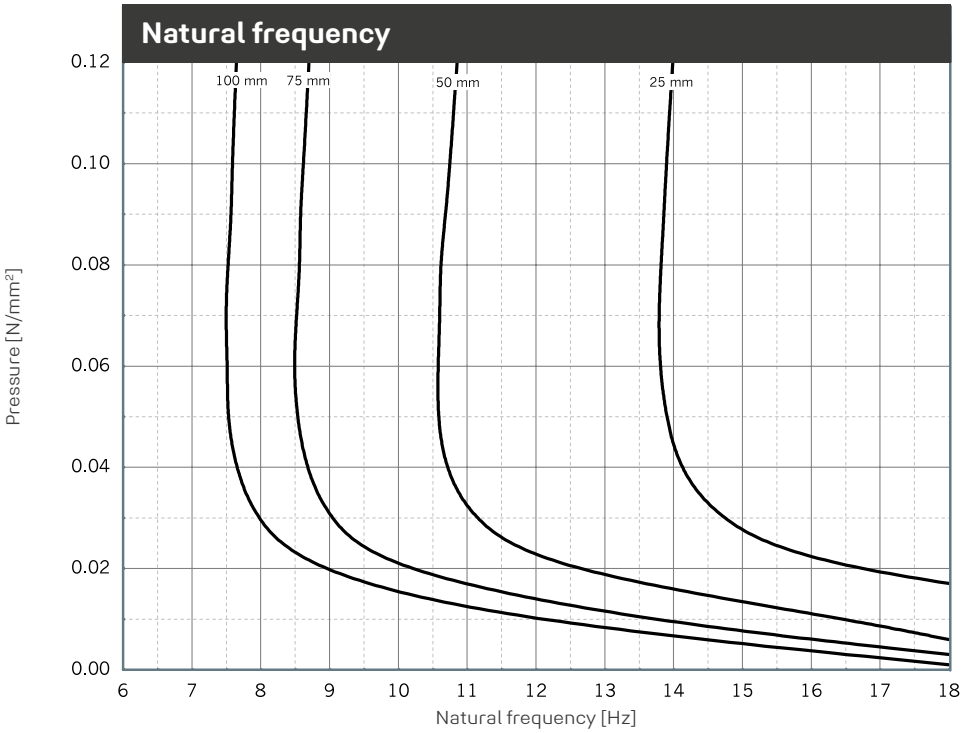
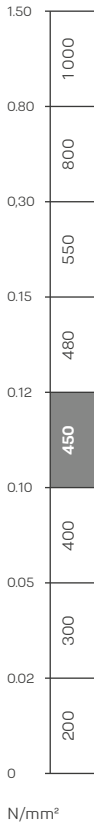
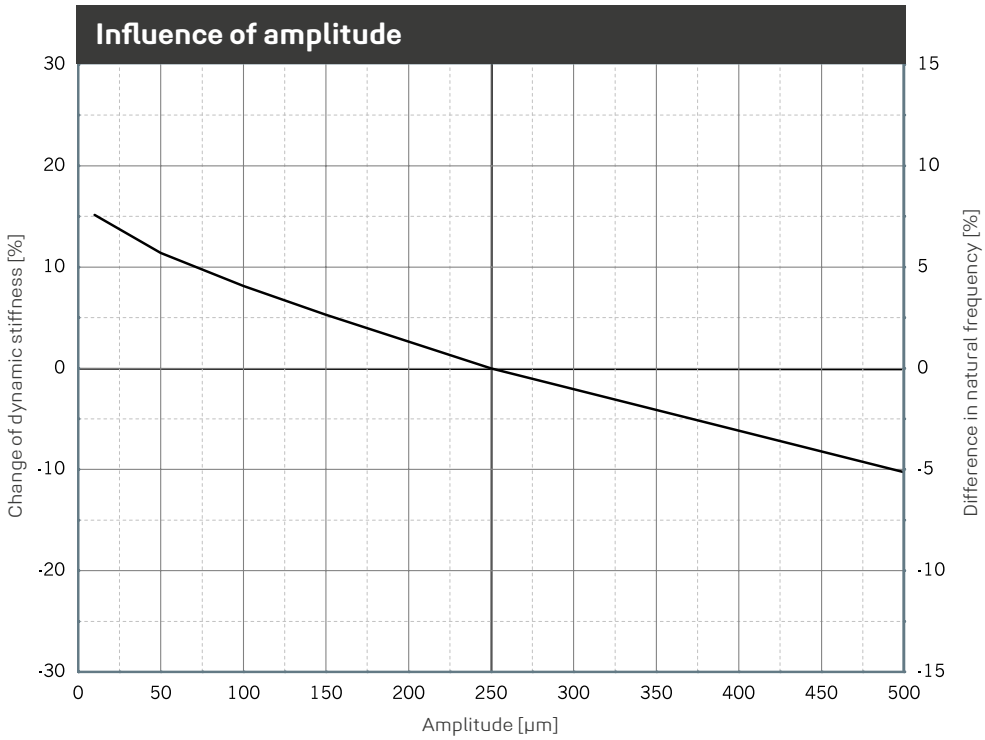


Illustration of the isolation efficiency of a single-degree-of-freedom system (SDOF system) on a rigid base with **REGUPOL vibration 450.** Parameter: power transmission (insertion loss) in dB, isolation factor in %.

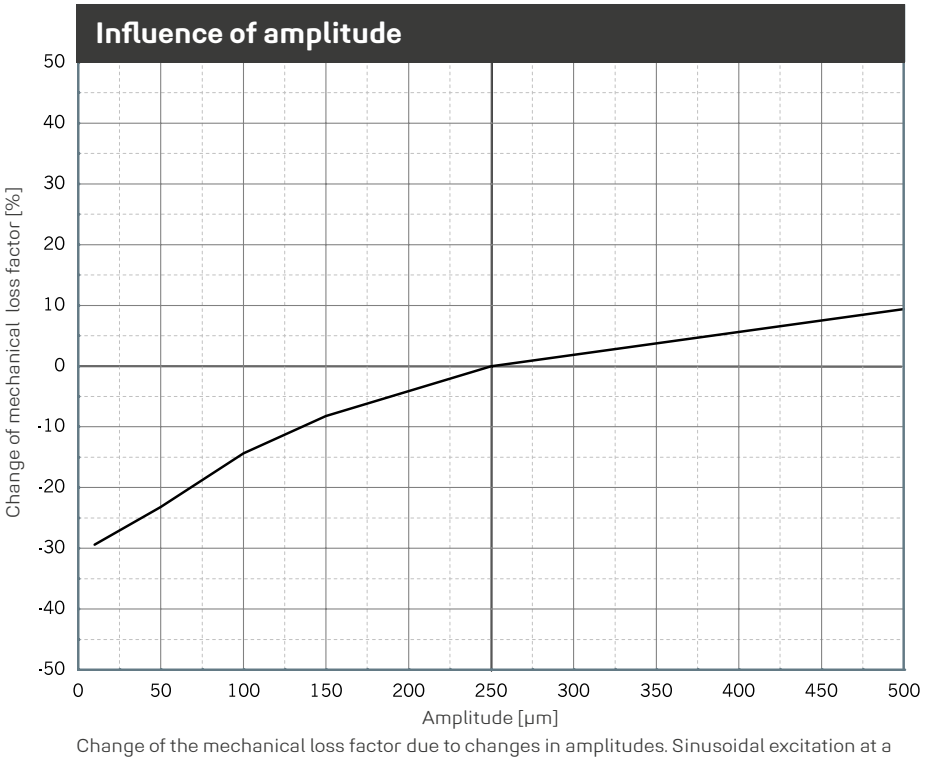


Natural frequency of a single-degree-of-freedom system (SDOF system) considering the dynamic stiffness of **REGUPOL vibration 450** on a rigid base. Dimensions of test specimens 300 x 300 mm.





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 0.10 N/mm², dimensions of the specimens 300 x 300 x 50 mm. Natural frequency of a single-degree-of-freedom system (SDOF system) on a rigid base.



Change of the mechanical loss factor due to changes in amplitudes. Sinusoidal excitation at a constant mean load of 0.10 N/mm², dimensions of the specimens 300 x 300 x 50 mm.

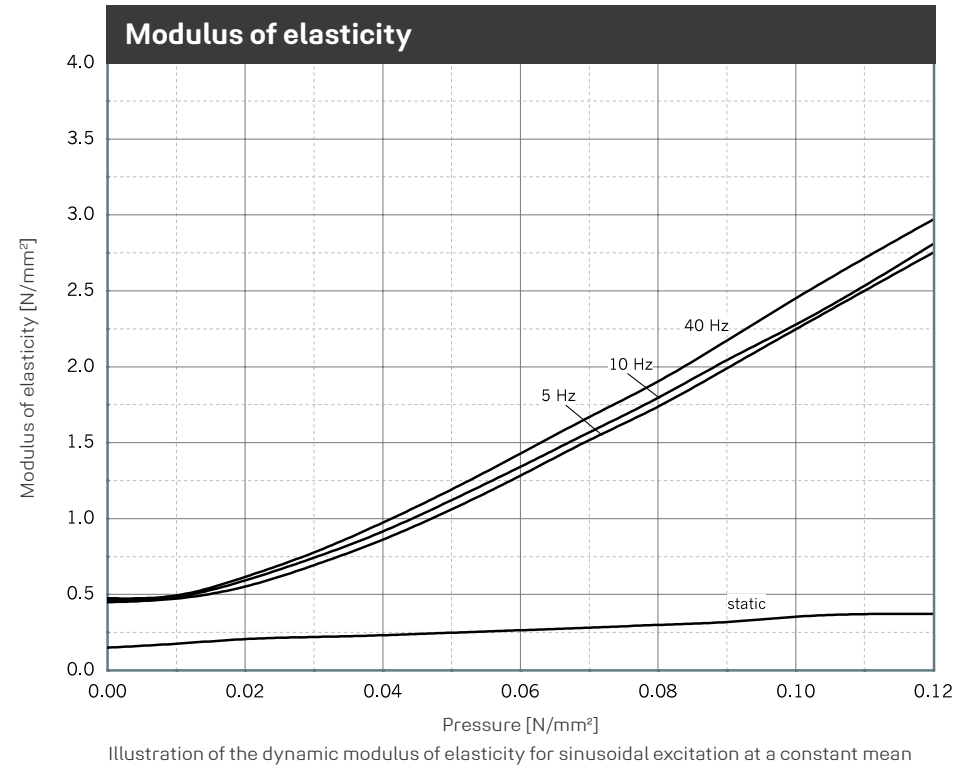


Illustration of the dynamic modulus of elasticity for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 x 300 x 50 mm; static modulus of elasticity as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

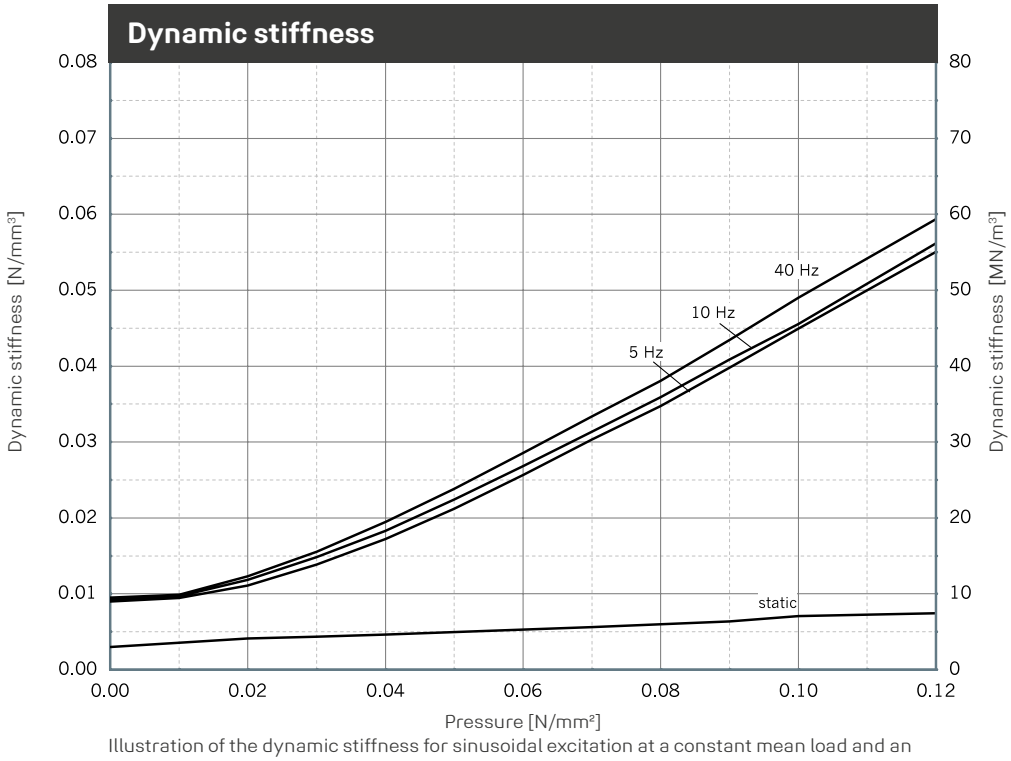


Illustration of the dynamic stiffness for sinusoidal excitation at a constant mean load and an amplitude of ± 0.25 mm. Dimensions of specimens 300 x 300 x 50 mm; static stiffness as a result of the tangent modulus of the spring characteristic. Tested in accordance with DIN 53513.

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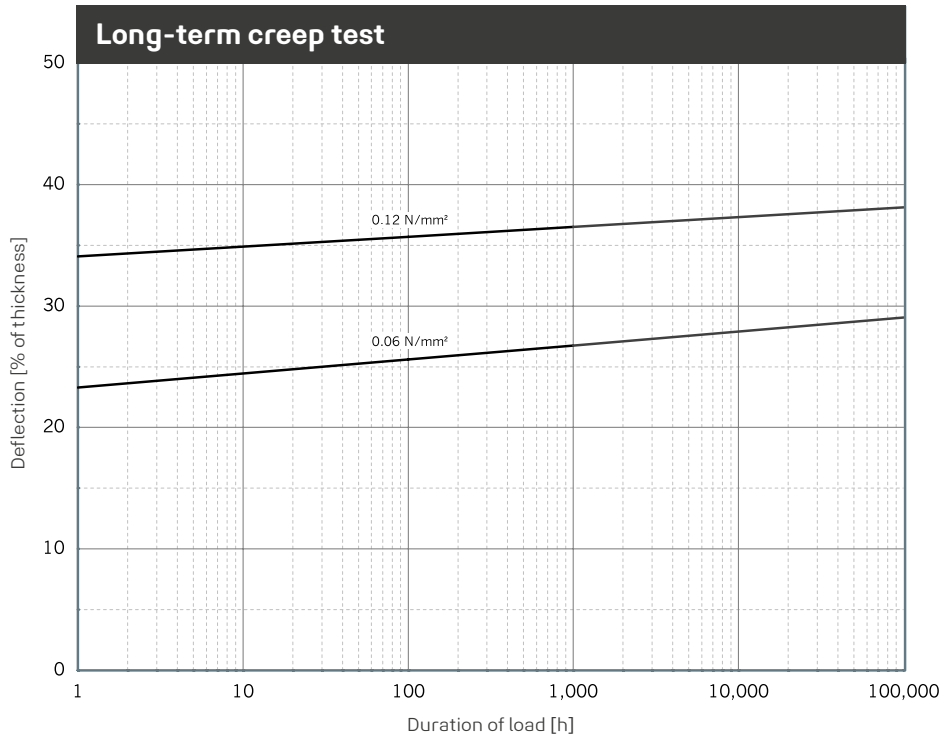

Dimensions of specimens 300 x 300 x 50 mm

Exclusion of Liability

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.