Sylodamp®
Detailed Data Sheet

Static creep behaviour

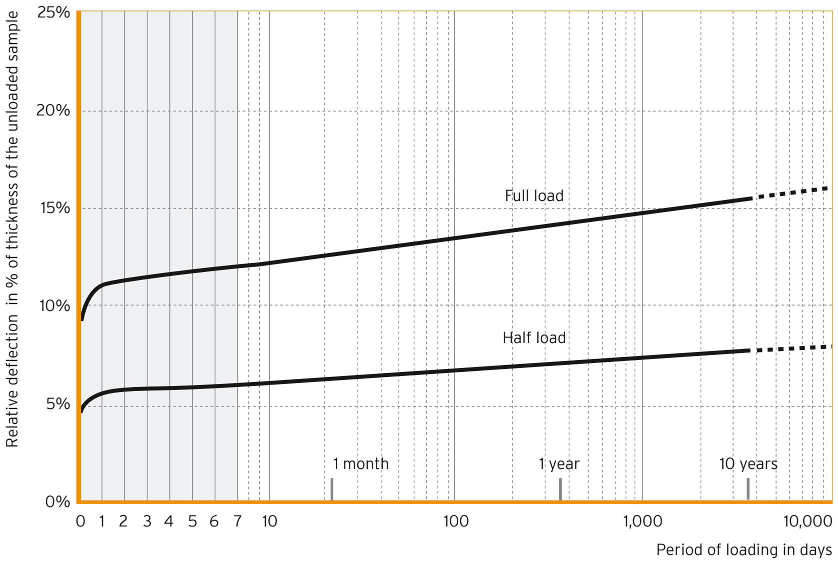

Fig. 1: Deformation under static load depending on time

Like other elastomers, Sylodamp® exhibits increased deformation under a static load (creeping). This increase in deformation is proportional to the time logarithm. In other words, the additional deformation that occurs is always the same for each decade (1 day, 10 days, 100 days, etc.). The largest increase in deformation due to creeping is completed after a relatively short period of time. The areas of application for Sylodamp® have therefore been selected so that the creep curve is the same for all types.

Amplitude dependence

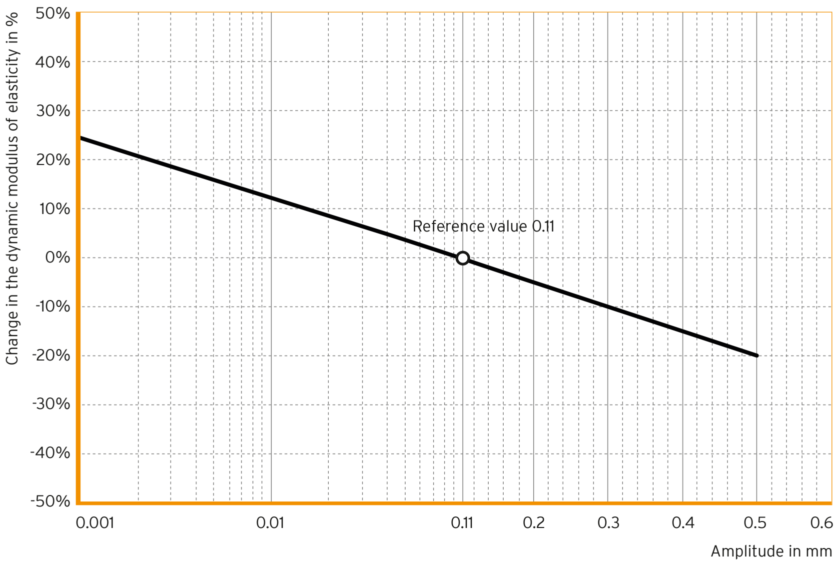

Fig. 2: Dynamic modulus of elasticity depending on the vibration amplitude

Reference value: amplitude 0.11 mm (corresponds to a velocitiy level of 100 dBv at 10 Hz)

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Frequency dependency of the dynamic modulus of elasticity

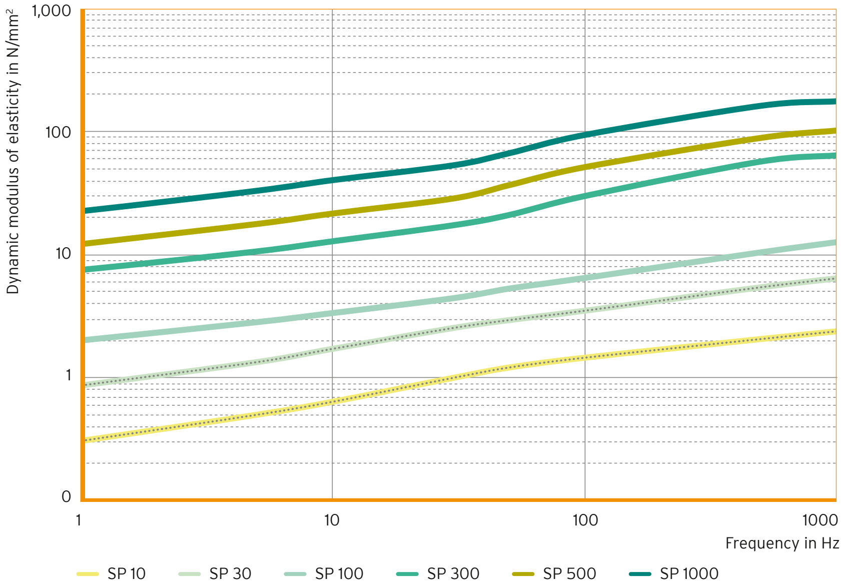

Fig. 3: Dynamic modulus of elasticity depending on the frequency

Sylodamp® exhibits a frequency dependence of the dynamic modulus of elasticity.

DMA-test (Dynamic Mechanical Analysis), measurements at room temperature (23 °C) with a sinusoidal excitation in the linear area of the load deflection curve, values based on the form factor q = 3 shown at the static range of use.

Frequency dependency of the mechanical loss factor

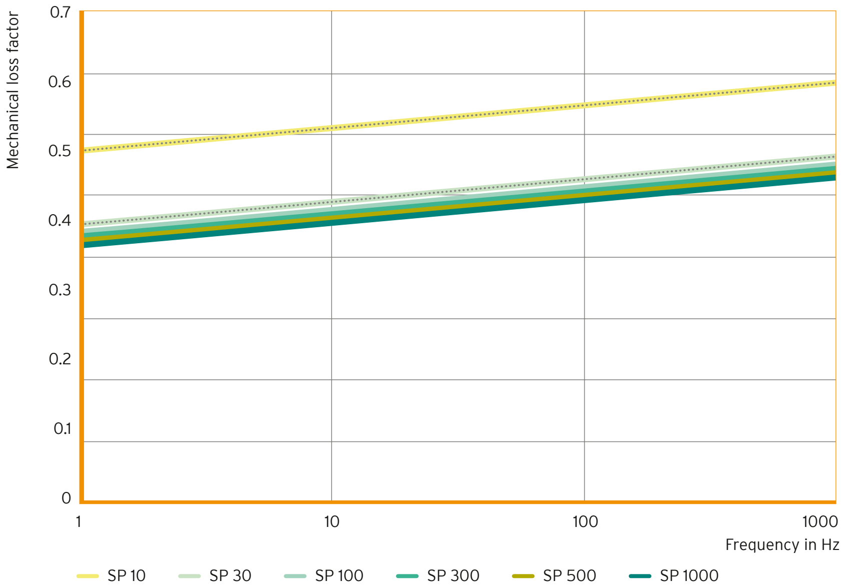

Fig. 4: Mechanical loss factor depending on the frequency

Sylodamp® exhibits a frequency dependence of the mechanical loss factor.

DMA-test (Dynamic Mechanical Analysis), measurements at room temperature (23 °C) with a sinusoidal excitation in the linear area of the load deflection curve, values based on the form factor q = 3 shown at the static range of use.

Temperature dependency of the dynamic modulus of elasticity

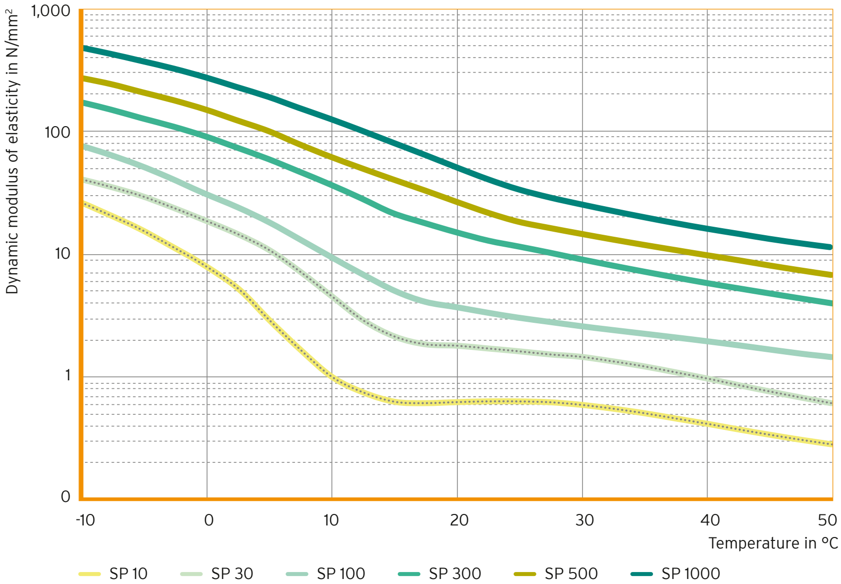

Fig. 5: Dynamic modulus of elasticity depending on the temperature

Sylodamp® exhibits a temperature dependence of the dynamic modulus of elasticity.

DMA-test (Dynamic Mechanical Analysis), measurements with a sinusoidal excitation in the linear area of the load deflection curve, values based on the form factor q = 3 shown at the static range of use at a frequency of 10 Hz.

Temperature dependency of the mechanical loss factor

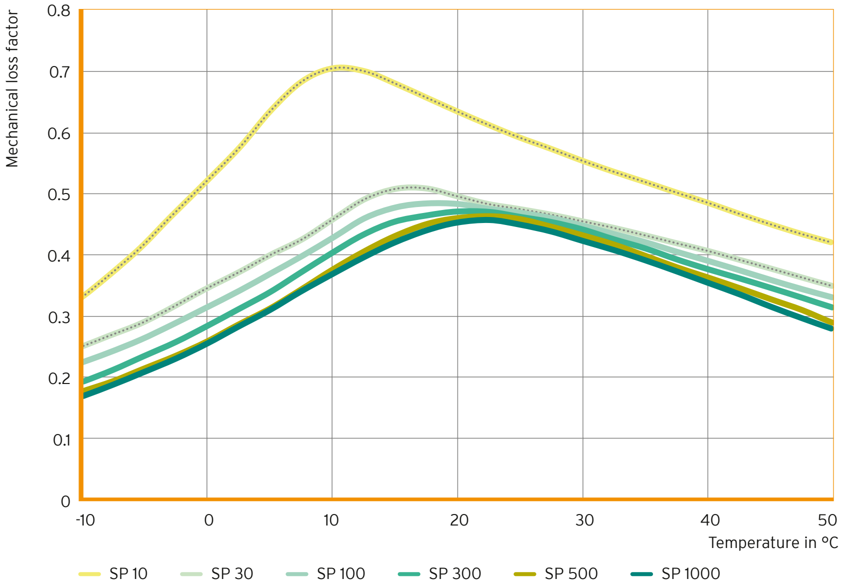

Fig. 6: Mechanical loss factor depending on the temperature

Sylodamp® exhibits a temperature dependence of the mechanical loss factor.

DMA-test (Dynamic Mechanical Analysis), measurements with a sinusoidal excitation in the linear area of the load deflection curve, values based on the form factor q = 3 shown at the static range of use at a frequency of 10 Hz.

Energy absorption

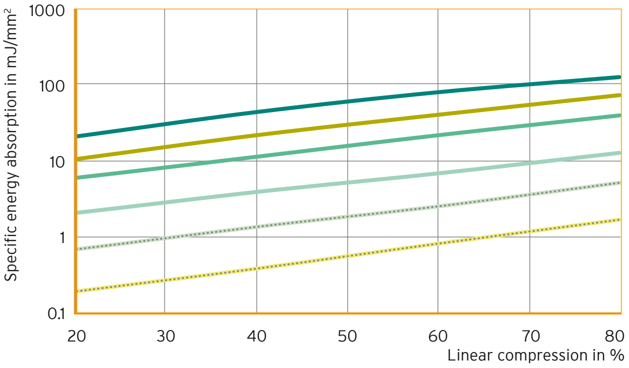

Fig. 7: Specific energy absorption [1] for a bearing thickness of 12.5 mm

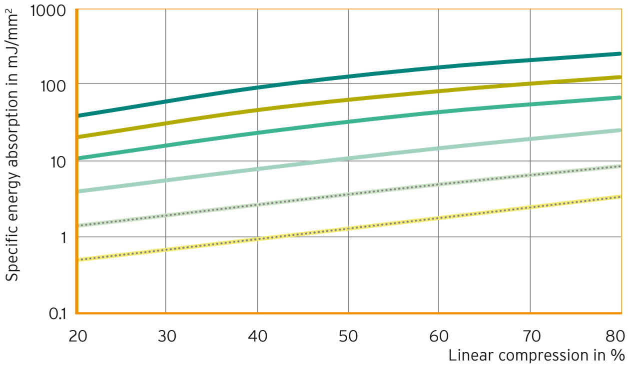

Fig. 8: Specific energy absorption [1] for a bearing thickness of 25 mm

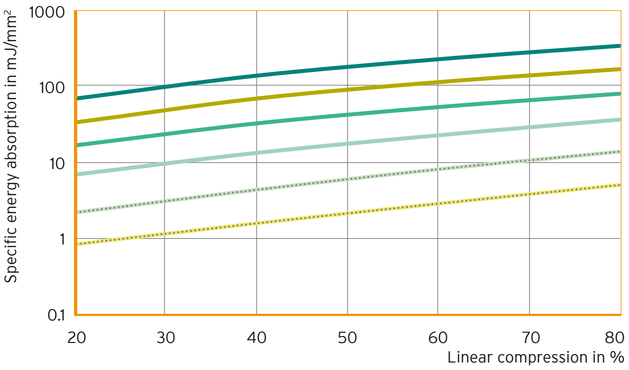

Fig. 9: Specific energy absorption [1] for a bearing thickness of 37.5 mm

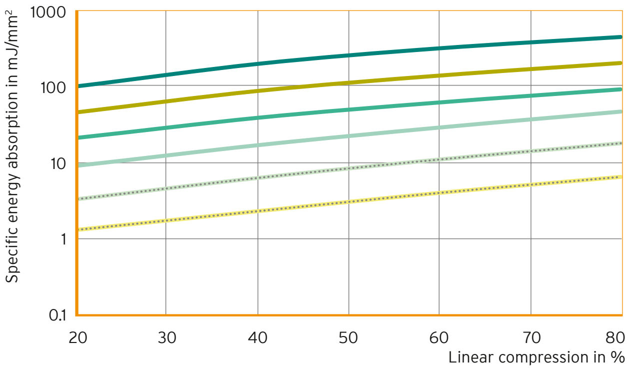

Fig. 10: Specific energy absorption [1] for a bearing thickness of 50 mm

SP 10 SP 30 SP 100 SP 300 SP 500 SP 1000

[1] Specific energy absorption by an impact load. Drop impact load with a round, flat force. Recording of 1st load, impact velocity between 0.5 m/s and 5 m/s. Test at room temperature (23 °C). Parameter: thickness of Sylodamp, for factor q = 3

All information and data is based on our current level of knowledge. It can be used in calculations and for reference purposes, but is subject to typical manufacturing tolerances and does not represent warranted properties. Subject to change without notice.