SYLODAMP®

DETAILED DATA SHEET

Static creep behaviour

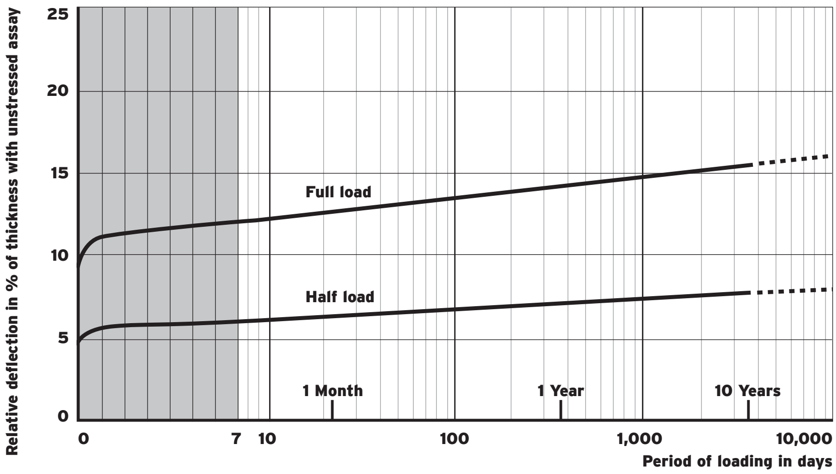

Fig. 1: Deformation under static load depending on time

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

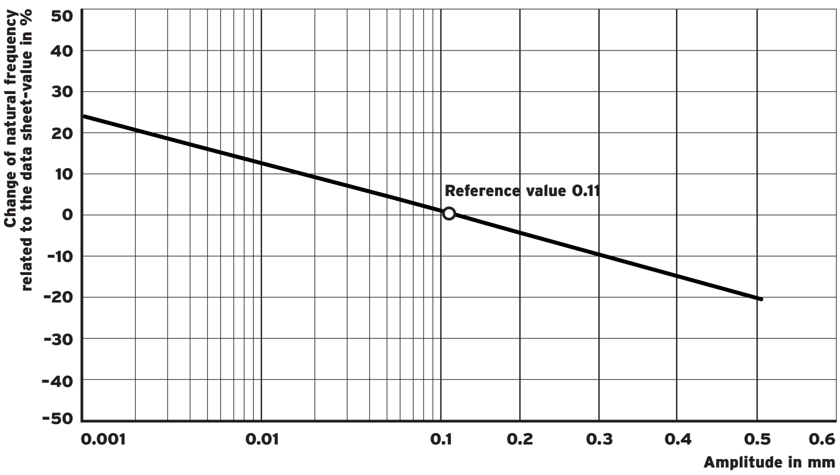

Fig. 2: Dynamic modulus of elasticity depending on the vibration amplitude

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

Frequency dependency of the dynamic modulus of elasticity

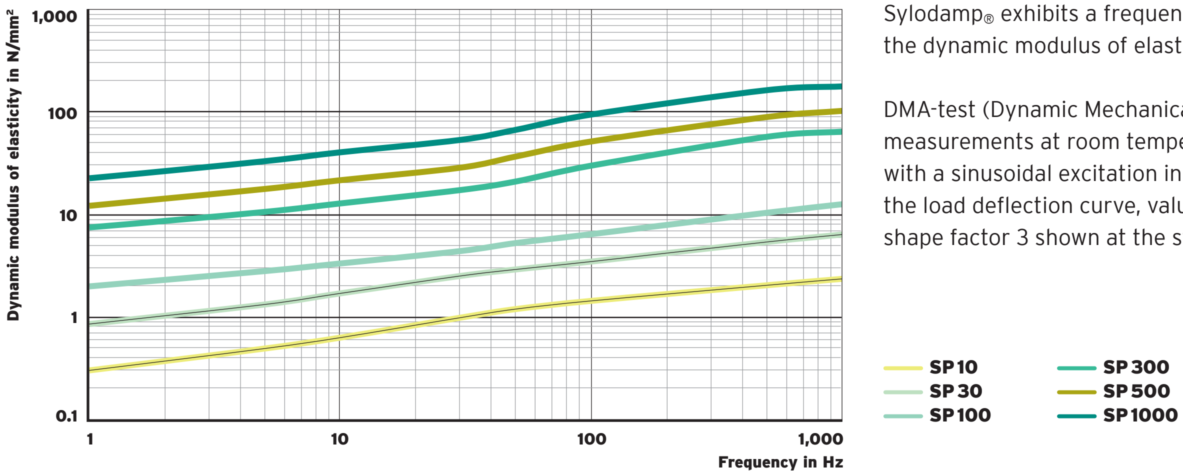

Fig. 3: Dynamic modulus of elasticity depending on the frequency

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 shape factor 3 shown at the static range of use.

Frequency dependency of the mechanical loss factor

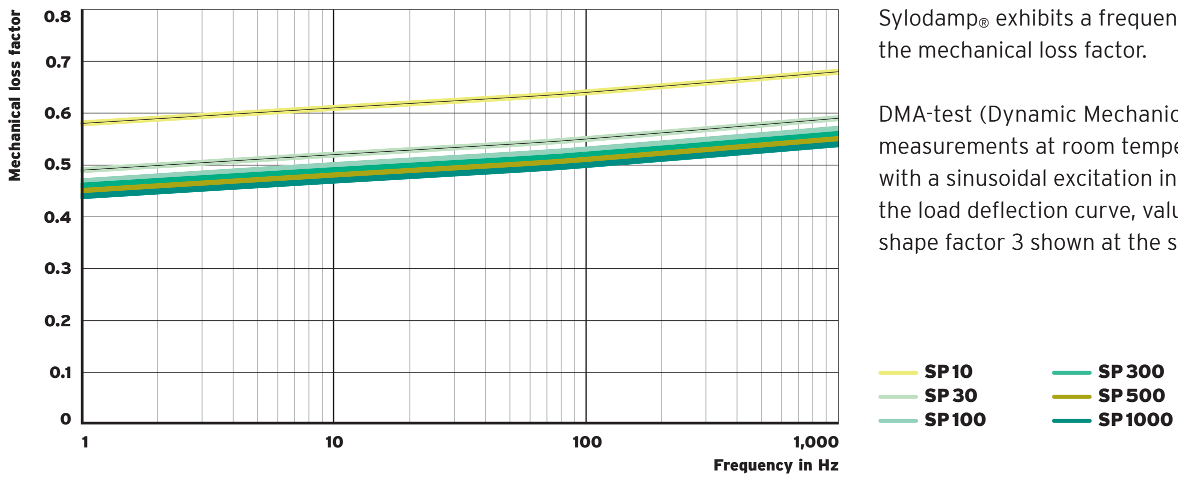

Fig. 4: Mechanical loss factor depending on the frequency

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 shape factor 3 shown at the static range of use.

Temperature dependency of the dynamic modulus of elasticity

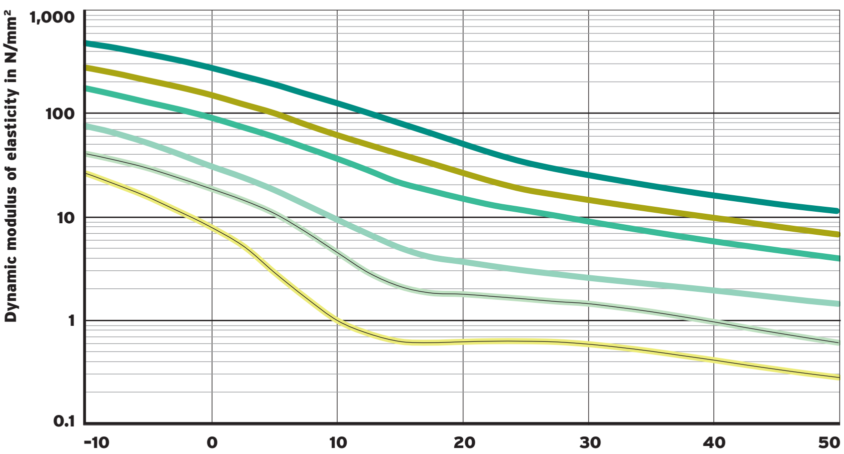

Fig. 5: Dynamic modulus of elasticity depending on the temperature

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 shape factor 3 shown at the static range of use at a frequency of 10 Hz.

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

Temperature dependency of the mechanical loss factor

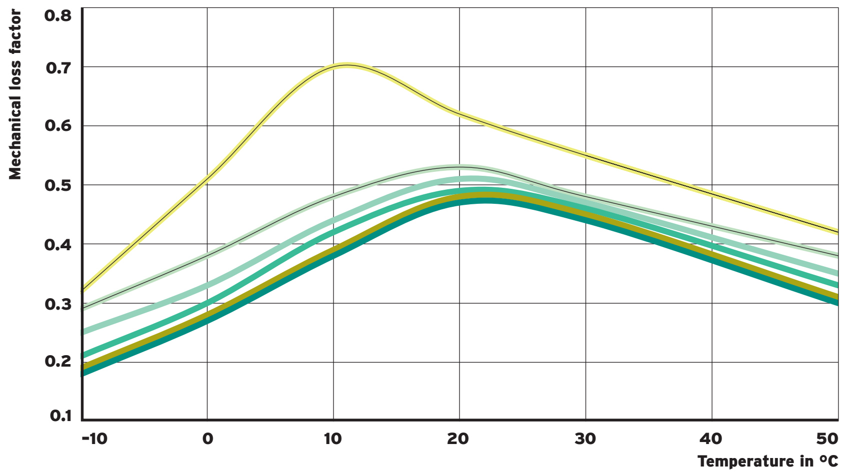

Fig. 6: Mechanical loss factor depending on the temperature

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 shape factor 3 shown at the static range of use at a frequency of 10 Hz.

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

Energy absorption

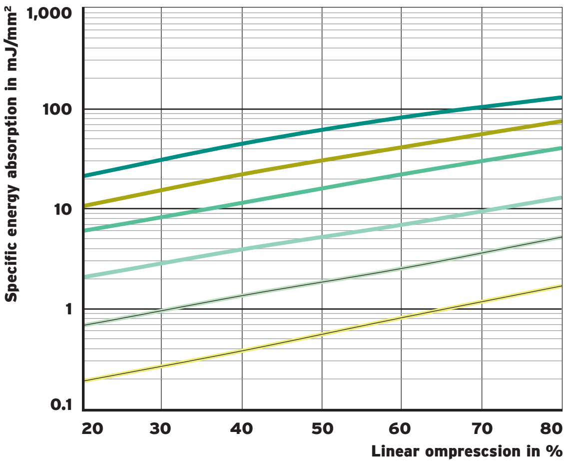

Fig. 7: Specific energy absorption[1] for a bearing thickness of 12.5 mm

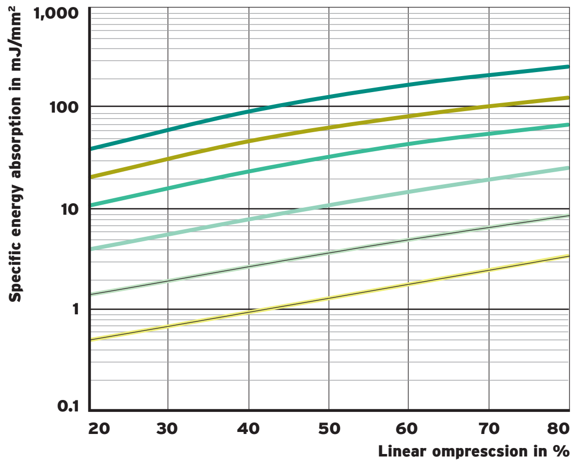

Fig. 8: Specific energy absorption[1] for a bearing thickness of 25 mm

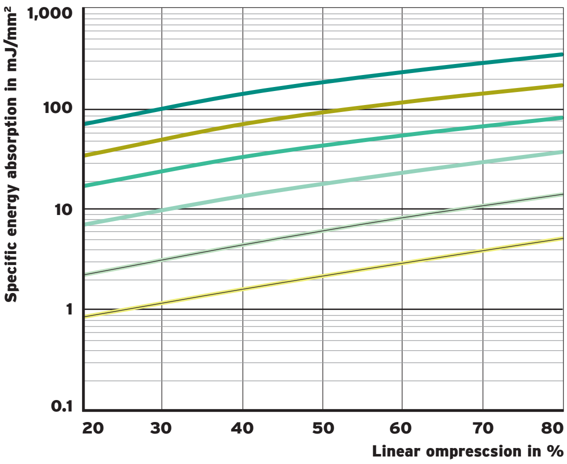

Fig. 9: Specific energy absorption[1] for a bearing thickness of 37.5 mm

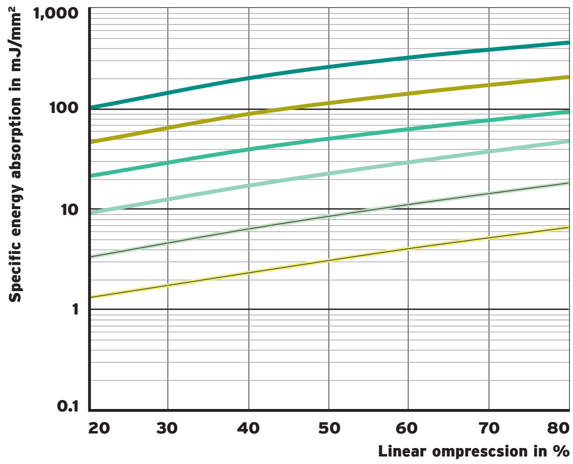

Fig. 10: Specific energy absorption[1] for a bearing thickness of 50 mm

- 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, shape factor 3

All information and data is based on our current knowledge. The data can be applied for calculations and as guidelines, are subject to typical manufacturing tolerances and are not guaranteed. Material properties as well as their tolerances can vary depending on type of application or use and are available from Getzner on request.