Static creep behaviour

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

Reference value: amplitude 0.11mm (corresponds to a velocity level of 100dBv at 10Hz)
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 \( q = 3 \) shown at the static range of use.

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 \( q = 3 \) shown at the static range of use.
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 $q = 3$ shown at the static range of use at a frequency of 10 Hz.

Temperature dependency of the dynamic modulus of elasticity

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

Temperature dependency of the mechanical loss factor

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 $q = 3$ shown at the static range of use at a frequency of 10 Hz.

Fig. 6: Mechanical loss factor depending on the temperature
Energy absorption

![Graphs showing specific energy absorption](image.png)

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 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.