

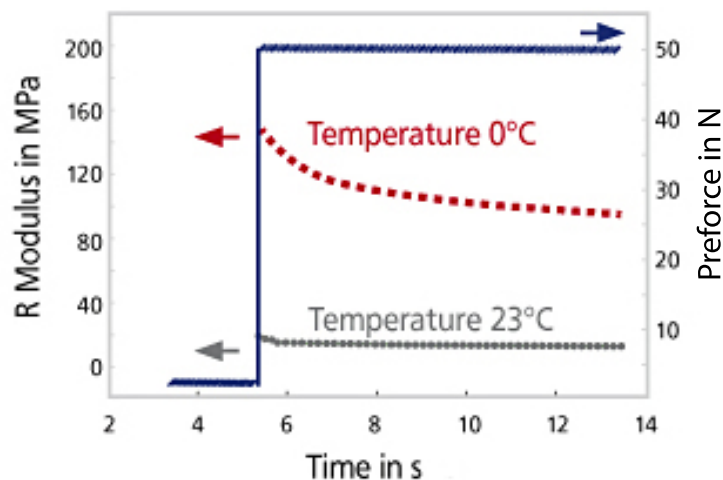
APPLICATION SHEET

Elastomers – DMA EPLEXOR®

Creep Behavior of Rubber

The figure shows the creep behavior of a compression sample at 0°C and at room temperature. The fast increase in force when setting up the load jump is characteristic

for this mode. The high force reserve of our instruments therefore enables relaxation/retardation examinations above and below the softening points of the materials to be tested.



Creep Recovery Experiments

In this figure, the relaxation modulus of an elastomer at 0°C (compression sample) in a creep recovery experiment (increase and decrease of load alternating by impulses) is shown. Characteristic for this deformation mode is the application of a rectangular force or strain pulses with an

extremely fast acceleration from the unloaded state to the target force or strain value (<0.2 s). The target or nominal value will be adjusted instantaneously with the aid of a newly developed control system (no overshooting).

Creep recovery experiments enable a long-time prognosis of the ageing process of statically stressed components.

