

# Polymer analysis – Dynamic Mechanical Analyser (DMA)

## Technical data

Device	Netzsch - DMA 242 C
Measuring principle	Dynamic Mechanical
Cooling system	Liquid / gaseous N <sub>2</sub>
Temperature range	-170 to +600 °C
Heating rates	0.01 to 20 K/min
Special configuration	Separate purging gas connection for the use of any desired gases

## Fields of use / applications

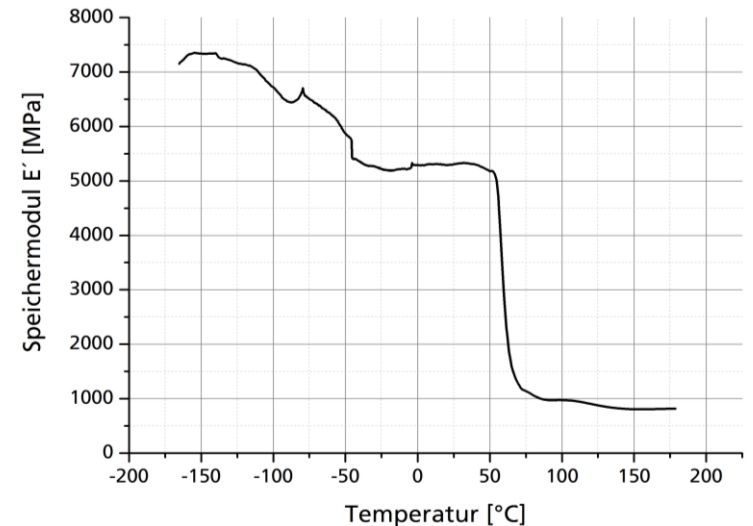
Characterisation of the mechanical properties of polymer materials such as plastics, matrix resins of fibre composite parts, fibre composite samples or adhesives under the influence of temperature

Investigation of the following characteristic values and processes:

- Storage/loss modules ( $G'/G''$ ,  $E'/E''$ )
- Non-linear stress deformation curves ( $\sigma$ ,  $\tau$ )
- Retardation/Relaxation mode

Deformation modes:

- 3-point bending, single/double arm bending
- Tension
- Compression/Penetration



Determination of the mechanical glass transition temperature of an adhesive