

## Accessories for Thermo Scientific rheometer

### Sample fixture for bending and breaking tests for Thermo Scientific rheometer

The Thermo Scientific rheometer HAAKE MARS and RheoStress 6000 are equipped with a highly sensitive normal force sensor and a very precise lift motor which allows applying controlled axial forces to the sample, pushing or pulling the material.

A new sample fixture has been developed to investigate the bending and breaking behaviour of a wide range of materials.

This tool consists of a support plate with two parallel bars with an adjustable distance between 1 cm and 7 cm.

An individually designed piston can be lowered onto the sample. The piston is

mounted to the Thermo Scientific rheometer using a 6 mm universal adapter. Thanks to this universal adapter any kind of piston design can be attached to the Thermo Scientific rheometer.

Using the rheometer software HAAKE RheoWin different lift speeds or axial forces can be defined to drive the piston into the sample surface. Depending on the application the experimental results can e.g. be plotted as normal force versus lift position or lift position as function of time. As a result the compliance of the structure can be determined or the force, which is needed to break the structure.

### Ordering information:

603-0241 Measuring geometry for bending and breaking tests for use with Thermo Scientific HAAKE MARS and RheoStress 6000 consisting of a sample fixture with adjustable bars and a cylindrical piston with a diameter of 6 mm

necessary accessory:

222-1276 Adapter coupling with bore 6 mm



Fig. 1: Test equipment to measure the breaking behaviour of a chocolate bar

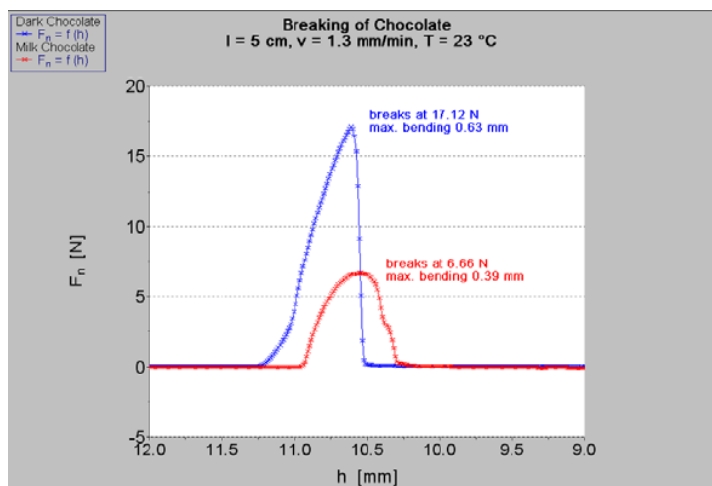


Fig. 2: Exemplary measuring results: breakage curves of half bitter (blue) and milk (red) chocolate bar

### Key-words

- Thermo Scientific rheometer
- Normal force
- Bending and breaking test

Dr. Cornelia Küchenmeister  
Dr. Klaus Oldörp

Thermo Fisher Scientific  
Process Instruments  
Dieselstr. 4  
76227 Karlsruhe  
Tel: +49 (0) 721 4 09 44 44  
Info.mc.de@thermofisher.com

www.thermo.com/mc