

HAAKE MARS sample fixture for bending and breaking tests

The HAAKE MARS rheometer is 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 HAAKE MARS using a 6 mm universal adapter. Thanks to this universal adapter any kind of piston design can be attached to the HAAKE MARS.

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 HAAKE MARS consisting of a sample fixture with adjustable bars and a cylindrical piston with a diameter of 6 mm



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

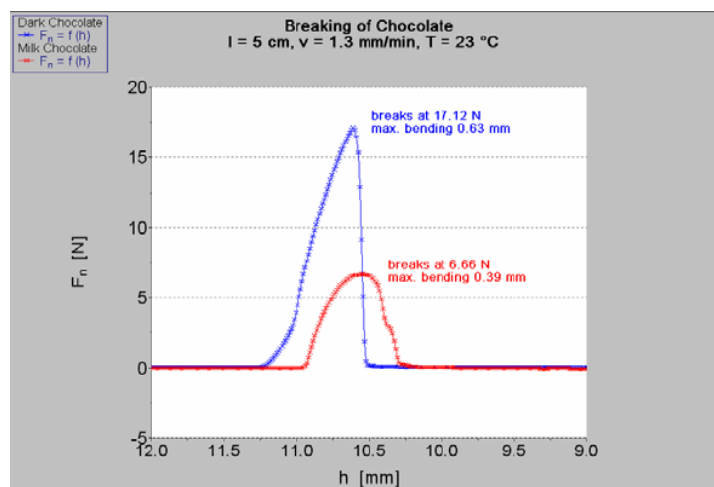


Fig. 2: Exemplary measuring results: breakage curves of half bitter (blue) and milk (red) chocolate bar

Key-words

- HAAKE MARS
- Normal force
- Bending and breaking test

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