BT 100

LENZING INSTRUMENTS

BULK TESTER

The comfort and functionality of pillows and similar end products are characterized by their firmness, capacity to retain shape and to give support. By testing filling materials like staple fibers for their compressibility, filling power and recovery properties, the requested comfort can be determined and accomplished.

Lenzing Instruments **BT 100** tests filling materials such as staple fiber and bulky filament yarns for their bulk properties in an automated way, which ensures for reproducible measurements with less subjective influence of the operator. A test is performed by filling the cylinder with test material, thereafter, the sample is compressed respectively uncompressed by means of a weight at a preset number of cycles.

Readings are made of the sample height in both unloaded and loaded condition. These readings serve as input for the applied formula with information about the filling power, compressibility and recovery properties of the tested material as a result.

BT 100 offers the possibility of individual test runs including test pause after a pre-set number of loading/unloading cycles.

The test cylinder of **BT 100** allows for a high number of single fibers to be tested during one test run.

FIBER TESTING

The Testing Company

BT 100

BULK TESTER

Scope:
Automatic bulk elasticity test for determination of the filling power, compressibility and recovery properties of bulky fibers and bulky filament yarns.

Method:
The material to be tested is filled into the test cylinder. Thereafter, the loading weight is automatically lowered onto the sample with a specified pressure, at which the sample is compressed down to a certain height. Then, the sample is unloaded and this sequence is repeated at a preset number of cycles; typically 1000. The readings of the sample height in compressed as well as in uncompressed state are used for evaluation of the bulkiness.

Results:
By means of the achieved values of the uncompressed respectively compressed sample height, the elastic recovery can be calculated.

Cycle frequency:
Typically 8 strokes/min

Weight of test specimen:
20 ± 1 g

Loading weight:
5 kg (50 g/cm^2)
(a 50 g lid covers the sample in both loaded and unloaded condition)

Recommended balance accuracy:
± 1 g

Typical number of load cycles:
1000 cycles

Test area:
100 cm^2

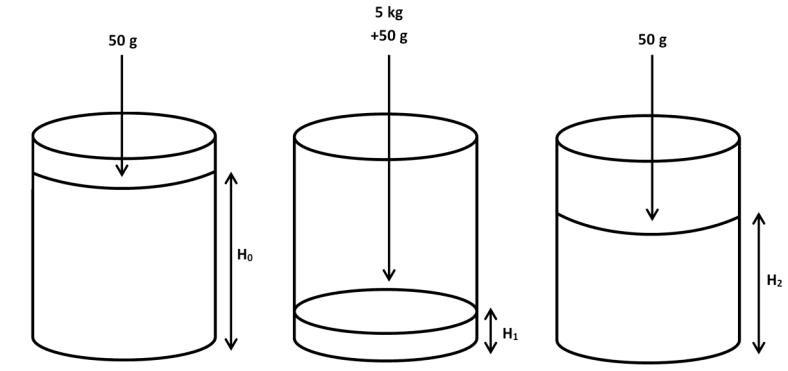
Recommended ambient conditions:
20 ± 2°C and 65 ± 2 % relative air humidity

Power supply:
230/115 VAC ± 10 %
50/60 Hz, 180 W

Dimensions:

Length:	770 mm
Width:	550 mm
Height:	330 mm
Weight:	36 kg

Applied formula:
Elastic recovery:
ER = (H2 -H1)/(H0 -H1) [%]



H_0: unloaded height after one stroke

H_1: loaded height after 1000 strokes

H_1: loaded height after 1000 strokes

Technical data and pictures are subject to change.

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