Bendtsen Tester

Roughness and Air Permeability

Code: E.205.xxx

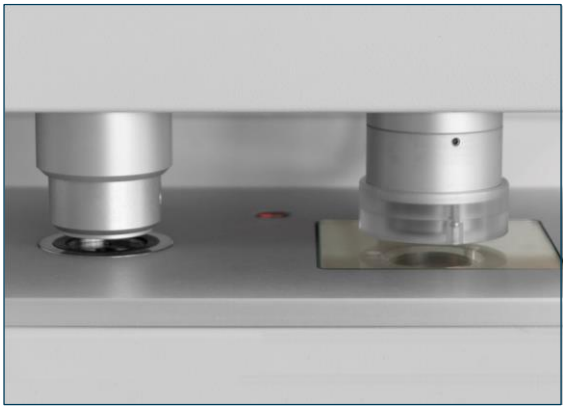
Usage

To determine the roughness and the air permeability according to the Bendtsen method, Gurley porosity is calculated from the measured values.

Applicable standards

- ISO 5636-3
- ISO 8791-2
- TAPPI T460
- SCAN P21, P60
- DIN 53108
- BS 4420

Touchscreen



Two heads for roughness and air permeability

Device description

The specially developed robust aluminum housing, which is equipped with a user-friendly touch screen, provides an excellent basis for the high-precision measuring mechanics of the Bendtsen. It consists of up to two pneumatic measuring cylinders with corresponding measuring heads, the control circuits and precise measuring sensors. To save the touch screen, the start button, which is separately attached to the device, can be used instead of the start button. The flow rate is 25-5000 ml/min. Other flow ranges are available on request.

Process description

The sample is placed on the support surface. After pressing the start button, the measuring cylinders lower onto the material.

Testing of the surface roughness:

The measuring head is released from the magnetic holder and placed on the sample with its own weight. Depending on the set measuring pressure, a pressure difference of 0.74; 1.47 or 2.20 kPa is generated and the air leakage between the measuring edge and the specimen is measured.

Measurement of air permeability:

The material to be tested is sealed laterally by means of a measuring head and the flow through the sample is measured.

After the measurement, the respective measurement results are output on the touch display in ml/min.

Optional

Other flow ranges on request

Specifications

- simple & intuitive operation via touch screen
- fully automatic measuring process
- sample detection by photocell
- flow rate: 25 - 5 000 ml/min.
  (other flow ranges on request)
- measuring time adjustable: 1 - 40 sec.
- up to two measuring heads: roughness and porosity
- pressure difference selectable according to standards:
- 0.74 kPa; 1.47 kPa; 2.20 kPa
- stabilization time adjustable from 1 - 40 sec.
- high quality acrylic specimen alignment holder
- automatic compensation of air pressure
- display of statistics with diagrams (max., min., arith. mean, standard deviation)
- calculation of Gurley porosity in seconds (only for porosity measurement models)
- RS232 and USB connection
- Windows software

Connections

- Electricity: 110 - 230 V, 50/60 Hz
- Air: 600 kPa

Models

Code	Article
E.205.100	1 head Bendtsen Tester for roughness tests
E.205.200	1 head Bendtsen Tester for air permeability tests (with Gurley calculation)
E.205.300	2 head Bendtsen Tester for roughness and air permeability tests (with Gurley calculation)