158 | Gurley type Densometer
Model G-B3C

Gurley type Densometer is designed to measure air permeability in accordance to ISO 5635-5, ISO 9073-1 to 4 and 7, ISO 9092 as well as JIS P 8117, JIS L 1913.

Applications are those in which 100ml of air permeates through their diameter of 28.6mm and whose permeating time is between 1.4 and 1,300 seconds. In particular, they are applications such as crepe, papers that exclude those showing air leaking from their surface if they are firmly tighten, including corrugated paper, and paper products made from paperboards.

This tester is capable of automatically measuring permeability up to 9,999 seconds and also applicable to film sheet.

■FEATURES

1. Automatic calculation enabled by high-precision detection with the optical fiber sensors

This tester correctly detects and counts the scale of air permeability amount with the optical fiber sensors. At the measuring range from five ranges between 25 and 300ml selected by the operators, the accumulated time (s), air permeability resistance (s/100ml) and ISO permeability (μm/Pa・s) are automatically calculated and displayed.

2. Eliminating variation between operators with constant-load sample clamp

If papers and board papers are tightened, their permeability will become larger. However, if they are tightened with the force exceeding stiffness of the tester, the parameter will become lower. This tester adopts a spring within the clamp table to make the tightening force even, eliminating test data variation between the operators due to uneven tightening force.

3. Enabling easy and prompt sample clamping with the lever rotation of the sample clamp

Simple lever operations help the operators to mount and dismount samples.

4. Measuring comfortably with the oil gauge

The permeability will change depending on the amount of oil left in the cylinder. For example, the permeability of high-quality paper decreases by approximately -1% under the oil level of -5mm. The oil gauge enables the operators to monitor the oil amount left in the cylinder from outside, allowing them to implement tests at ease.

■SPECIFICATIONS

Main unit

Model	G-B3C
Sample clamping system	Constant load system with the lever operation (Sample: 0 to 1mm, approx. 200N)
Outer cylinder	Internal dia. 82.6mm, Height 254mm
Inner cylinder	Internal dia. 74mm, External dia. 76.2mm, Height 254mm Mass 567±0.5g
Gasket	Internal dia. 28.6mm, External dia. 34.9mm
Air permeation volume	Max. 350ml Scale 0, 25, 50, 75, 100, 150, 200, 250, 300, 350ml
Air transmission hole diameter	Ø28.6±0.1mm
Oil gauge	Assembled on the left and right side of the cylinder
Oil	Machine oil, ISO VG10
Dimensions and weight	W220 x D225 x H560mm / Approx. 22kg
Related standards	ISO 5636-5, ISO 9073-1 to 4, and 7, ISO 9092, JIS P 8117, JIS L 1913,

Air permeation counter

Scale detection sensor	Reflection type optical fiber sensor
Permeation time range	Between 1.0 and 9999.9sec.
Measuring mode	Cumulative time(s)
*Displaying mode	● Air resistance(s/100ml) ● ISO air permeability(μm/Pa･s) *Note: Possible to change the mode after measurements. During measurements, cumulative time is always displayed.
Air permeation volume ranges	25, 50, 100, 200, 300ml (5 ranges)
Interface	RS-232C
Power requirement	Single-phase, AC100 to 240V, 50 or 60Hz, 0.5A

Options

Name	Model	Note
Adapter (Specimen attachment)	S15	Gasket of inner dia. Ø15mm
Adapter (Specimen attachment)	S10	Gasket of inner dia. Ø10mm
Adapter (Specimen attachment)	S6	Gasket of inner dia. Ø6mm
Data acquisition software for spreadsheet application *Note: Spread sheet application is not provided.*	EX-2	-----
Mini printer	PS-B1	-----
All range data exporting	RTD1	Exporting all nine range data with a single test. EX-2 is also necessary for this option.

Specifications are subject to change without notice.

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