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Analysis & Testing Instruments



# Paper and Cardboard Air Permeability Tester

## N600P



## **Introduction**

Paper and cardboard air permeability tester N600P is designed and developed according to ISO5636 and other standards. It adopts the testing principle of differential pressure method and combines Gurley method, Schauer method and Bengtsen method. The method is integrated into one machine and is suitable for the air permeability of various papers and cardboards. It can test the air permeability, air permeability resistance, transmission rate and transmission volume of materials.

## **Test principle**

Gurley method: Measure the time it takes for 100 mL of gas to pass under a constant pressure difference of 1.23 kPa.

Schober method: constant pressure difference  $1.00 \text{ kPa} \pm 0.01 \text{ kPa}$  or  $2.50 \pm 0.01 \text{ kPa}$ , select the appropriate test duration, and measure the air flow through the sample through the test volume.

Bentsen method: Under a constant pressure difference of 1.47 kPa, after clamping for 5 s, test the air flow through the test surface.

## **Standard**

ISO 5636-5: 2003, ISO 5636-2: 1984, ISO 5636-3: 2013, TAPPI T460

## Specification

Test Range	0.1~10 $\mu\text{m}/(\text{Pa}\cdot\text{s})$
Resolution	0.001 $\mu\text{m}/(\text{Pa}\cdot\text{s})$
Pressure difference range	0~3 kPa
Pressure resolution	0.001kPa
Test area	6.42cm <sup>2</sup> or 10.0cm <sup>2</sup>
Sample size	> 50 mm×50 mm
Instrument size	L×W×H: 450 mm×400 mm×300 mm
Power	100 W
Power supply	110~250 VAC, 50~60 Hz

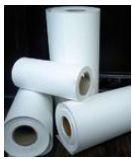


## Features



- ◆ Integrate Gurley's method, Schober's method, and Bengtsen's method into one machine for users to choose freely to meet the testing needs of different users;
- ◆ The pressure difference of the instrument is adjustable in the range of 0~3 kPa, with an accuracy of 0.001 kPa, fully meeting the test pressure difference requirements of the three methods;
- ◆ The test area can be freely converted between 10.0 cm<sup>2</sup> and 6.42 cm<sup>2</sup> by changing the fixture;
- ◆ The instrument comes with a temperature and humidity sensor that monitors the

temperature and humidity of the test chamber in real time.

- ◆ The sealing of the instrument is good, and the air leakage does not exceed 1.0 mL/h;
- ◆ The pressure can be adjusted arbitrarily, fully automatic operation, automatic measurement and calculation of results;
- ◆ The host is equipped with a color touch screen, no external computer is needed, and the air permeability of the sample can be observed in real time;
- ◆ Built-in micro printer, which can print test reports in real time;
- ◆ The host computer software is designed according to the new version of GMP Appendix "Computerized System" and can realize hierarchical authority management, audit tracking, electronic signature and other functions (optional).

## Application

	Insulating paper	Measurement of air permeability of transformer insulation cardboard, green shell paper, cable paper, etc.
	Wrapping paper	Determination of air permeability of kraft paper, paper bag paper, food packaging paper, moisture-proof paper, paraffin paper, etc.
	Fiber paper	Determination of air permeability of wound

		paper, impregnated paper, laminate, capacitor paper, high temperature fiber paper, etc.
	Filter paper	Air permeability measurement of industrial filter cloth (filter paper), qualitative filter paper, quantitative filter paper, etc.
	Other	Alkaline battery separators (nylon felt, non-woven fabrics, tissue paper and other microporous membranes) and other materials.

### Factory configuration

No.	Name	Specification	Qty	Unit	Remark
1	Paper and cardboard air permeability tester	N600P	1	Piece	Standard configuration
2	Pressure regulating valve	/	1	Piece	Standard configuration
3	fixture	6.42 cm <sup>2</sup>	1	Piece	Standard configuration
4	fixture	10.0 cm <sup>2</sup>	1	Piece	Standard configuration
5	Correction film	/	1	Piece	Standard configuration

6	Trachea	Φ6	3	mts	Standard configuration
7	Power cable	/	1	Piece	Standard configuration
8	USB communication cable	/	1	Piece	Optional
9	Computer	/	1	Piece	Optional
10	Testing software (GMP)	/	1	Piece	Optional
11	Air compressor	/	1	Piece	Optional
12	Measurement certificate	/	1	Piece	Optional

Note: GBPI has always been committed to the innovation and improvement of product performance and function. For this reason, product technical specifications and appearance will also be changed accordingly. The above situation will not be notified. GBPI reserves the right of modification and final interpretation.



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