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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 22901-2008

**Paper and board -- Determination of air permeance (medium
range) -- General method**

纸和纸板 透气度的测定（中等范围） 通用方法
(English Translation)

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Foreword

This revised standard adopts ISO 5636-1. 1984 "Paper and board Determination of air permeability (medium range) - Part 1. General Method" (In English).

Appendix B gives a list of the control of the national standards with international standards provisions.

Appendix C gives the list of the national standards with international standards and technical reasons for the differences.

The Standard Appendix A, Appendix B and Appendix C are informative appendices.

The standard proposed by China National Light Industry Council.

This standard by the National Standardization Technical Committee of the paper industry.

This standard was drafted. People's Republic of China Shanghai Entry-Exit Inspection and Quarantine Bureau, China Pulp and Paper Research Institute, the national paper quality supervision Governor Inspection Center.

1 Scope

This standard specifies the determination of paper and paperboard air permeability (medium range) instrument used by the basic technical requirements and general method of operation.

This standard applies to air permeability of $1 \times 10^{-2} \mu\text{m}/(\text{Pa} \cdot \text{s}) \sim 1 \times 10$ Paper and cardboard inner $\mu\text{m}/(\text{Pa} \cdot \text{s})$ range.

This standard does not apply to the surface roughness of paper and board, such as crepe paper and corrugated paper, because such paper is not easy to grip firmly, easily lead to leaks.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 450 and take samples to an aspect of paper and paperboard samples, positive and negative determination (GB/T 450-2008, ISO 186.

2002, MOD)

GB/T 10739 paper, paperboard and pulp sample processing and testing standard atmospheric conditions (GB/T 10739-2002, eqv ISO 187.

1990)

3 Terms and Definitions

The following terms and definitions apply to this standard.

Under pressure units in the average air flow per unit time through unit area of specimen, expressed in microns per pascal second $[1\text{mL}/(\text{m}^2 \cdot \text{Pa} \cdot \text{s}) = 1\mu\text{m}/(\text{Pa} \cdot \text{s})]$.

Principle 4

The specimen is clamped between a circular seal pad and a known diameter of the ring plane, suffered side air sample test zone pressure Force of atmospheric pressure on both sides of the specimen during testing has been very small, but very stable. Measured within the prescribed period of time through the test area air flow.

Note: When using Gurley tester, stress testing procedure will be applied with the buoyancy cylinder change, but this change is reproducible.

5 Instruments

In addition to meeting the air permeability of 5.1 other relevant national standards corresponding part of the detailed requirements, the instrument should also meet the following requirements.

- a) Determination of the accuracy of the volume of the measured value $\pm 2\%$, the accuracy of the measurement time for the measured value $\pm 1\%$;
- b) measuring the air flow rate accuracy of $\pm 5\%$ for the measured values.

Display Value 5.2 Sample required between 0.7kPa ~ 3.0kPa, the pressure on both sides of

the initial sample shall be $\pm 2\%$, and its measurement process Error should not exceed 5%.

5.3

specimen test area shall not be less than 6cm², 10cm² of the test area is recommended.
Error test area should be controlled in size Within the range of $\pm 2\%$.

5.4

When water is used as the replacement medium penetrating air flow direction of the sample should never make prior contact with water. Sealing is recommended to check the instrument