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

**GB/T 22897-2008**

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**Paper and board -- Determination of resistance to water  
penetration**

纸和纸板 抗透水性的测定

**(English Translation)**

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### Foreword

This revised standard adopts ISO 5633. 1983 "Paper and paperboard anti-permeability measurement." this standard and ISO 5633. 1983 as compared to the main differences are as follows.

--- International Standard ISO document standard will be referenced in the normative references converted to its corresponding national standard, GB/T 450 paper and cardboard to take samples and specimens to the vertical and horizontal, positive and negative determination (GB/T 450-2008, ISO 186:2002, MOD);

--- International Standard ISO document standard will be referenced in the normative references converted to its corresponding national standard, GB/T 10739 paper, paperboard and pulp sample processing and testing standard atmospheric conditions (GB/T 10739-2002, eqv ISO 187:1990).

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 Beijing Entry-Exit Inspection and Quarantine Bureau, Pulp and Paper Research Institute of China, People's Republic of China Shanghai Entry-Exit Inspection and Quarantine Bureau.

### 1 Scope

This standard specifies the method for the determination of anti-permeability of paper and paperboard.

This standard applies to the use of pulp sizing, surface sizing, coating, composite waterproof layer, or any other way to make it waterproof or water-resistant can paper and

cardboard.

This method is not applicable to corrugated cardboard.

## 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.

Paper and cardboard to prevent water penetration from one surface to the other surface properties, in order to indicate the time.

Principle 4

Of paper and cardboard were constant humidity treatment, under standard ambient pressure and stable conditions, the standard solution was measured penetration paper and paperboard Time required.

### 5.1 Test Solution

0.1% distilled water solution containing a dye eosin.

**NOTE:** The water temperature is very important, it should be kept within the temperature and humidity in the processing temperature range (see Chapter 8).

#### 5.2.1 Anti-permeability tester

##### 5.2.1.1

cylindrical metal cup, the inner diameter of  $112.8\text{mm} \pm 0.2\text{mm}$ , an outer diameter of about 170mm, equipped with water valve and drain valve.

**5.2.1.2**

ferrules. Diameter  $112.8\text{mm} \pm 0.2\text{mm}$ , an outer diameter of about 170mm, thickness 10mm.

**5.2.1.3**

rubber pad. two, inner diameter of each  $112.8\text{mm} \pm 0.2\text{mm}$ , an outer diameter of about 170mm.

**5.2.1.4**

Methods metal collar fixed to a metal cup. the rubber pad sandwiched between the metal collar and metal cups, remain sealed.

**5.2.1.5**

gauge, available up to 1000mm water column pressure gauge.

**5.2.2 Timer**

**Note:** Other types of instruments size 5.2.1.1 ~ 5.2.1.3 provisions for the instrument of FIG. 2, in line with the system shown in Figure 1 can also be used.