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

GB/T 12010.8-2010

Replacing GB/T 12010.12-1989

**Plastic -- Polyvinyl alcohol (PVAL) materials -- Part 8:
Determination for transparency**

塑料 聚乙烯醇材料 (PVAL) 第8部分: 透明度测定
(English Translation)

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Foreword

GB/T 12010 "plastic material polyvinyl alcohol (PVAL)" is divided into eight sections.

--- Part 1. Designation system and basis;

--- Part 2. Performance measurement;

--- Part 3. Specifications;

Part --- Chapter 4. pH value measurement;

--- Part 5. Determination of the average degree of polymerization;

--- Part 6. Determination of particle size;

--- Part 7. Determination of sodium hydroxide;

--- Part 8. Determination of transparency.

This section GB/T Part of 812,010, and JISK6726:1994 (2003 Confirmation) "polyvinyl alcohol test method" (Japanese Version) The non-equivalent.

This Part replaces GB/T 12010.12-1989 "polyvinyl alcohol resin transparency determination." this section compared with the GB/T 12010.12-1989 main changes are as follows.

--- Increasing the reference document (Chapter 2 of this edition);

--- Improve the accuracy of the balance (1989 version 3.3, this version 4.2);

--- Sample weight by the sample was adjusted to 12g 15g (1989 version 4.1, this version 5.1).

This part is proposed by the China Petroleum and Chemical Industry Association.

This part of the National Standardization Technical Committee of plastic products and plastic resins General Methods Chapter (SAC/TC15/SC4) centralized.

This section is responsible for drafting unit. Hunan Xiangwei Limited.

This section participated in the drafting unit. China Petrochemical Group of Sichuan Vinylon Works, Ltd. Yunnan Yun-dimensional, synthetic resin national quality supervision Governor Inspection Center.

1 Scope

GB/T 12010 in this section specifies the method for determining the non-transparency of aqueous polyvinyl alcohol fiber material with a spectrophotometer.

This section applies to the determination of the degree of transparency of the alcohol solution is greater than 70% (mole fraction) of 4% aqueous solution of polyvinyl alcohol material.

2 Normative references

The following documents contain provisions which, through reference GB/T 12010 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

Laboratory use specifications and test methods GB/T 6682 Analysis JJG178 ultraviolet, visible, near infrared spectrophotometer Principle 3 Measured by a spectrophotometer 430nm light waves through the optical path is 20mm, concentration of 4% aqueous solution of polyvinyl alcohol material light transmittance.

4 Instrument

4.1

Spectrophotometer. with 20mm path length cuvette and meet JJG178.

4.2

Balance. accurate to 0.001g.

4.3

Erlenmeyer flask. 500mL.

4.4

dissolution device. can be heated and stirred.

4.5

constant temperature water bath. $(30.0 \pm 0.1) ^\circ\text{C}$.

5 Steps

Test water should be at least in line with GB/T 6682 in the three water specifications.

Preparation 5.1 4% aqueous solution of polyvinyl alcohol

5.1.1

Weigh a sample of about 15g, accurate to 0.001g, placed in 500mL Erlenmeyer flask.

5.1.2

according to formula (1) Calculate the mass of water to be added, adding water modulation.

$$m = m_0 \times$$

$$(100-w)$$

$$4 - m_0$$

Where.

m_0 --- weighed sample mass value in grams (g);

Numerical m --- plus water, in grams (g);

w --- sample value volatile content,%;

4 --- expressed in% of the prescribed value solution concentration.

5.1.3

The sample is completely dissolved by heating, cooled to room temperature, then placed $(30.0 \pm 0.1) ^\circ\text{C}$ constant temperature water bath 30min, so the test solution gas Bubble disappears, and set aside.

NOTE: Before sample dissolution, the quality should remain unchanged after the test solution.