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

GB/T 12010.7-2010

Replacing GB/T 12010.11-1989

**Plastics -- Poly (vinyl alcohol) (PVAL) materials -- Part 7:
Determination for sodium hydroxide contents**

塑料 聚乙烯醇材料 (PVAL) 第7部分: 氢氧化钠含量测定

(English Translation)

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Table of Contents

Foreword
1 Scope
2 Normative references
4 Reagents
4.1 Sulfuric acid standard titration solution. c 12H ₂ SO ₄
5 Instruments
6 Steps

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 712,010, and JISK6726:1994 (2003 Confirmation) "polyvinyl alcohol test method" (Japanese Version) The non-equivalent.

This Part replaces GB/T 12010.11-1989 "polyvinyl alcohol resin sodium content determination method", and GB/T 12010.11-the main changes compared to 1989 are as follows.

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

--- Improve the accuracy of the burette (1989 version 5.3, this version 5.3);

--- Sample weight by the sample (4 ~ 5) g, adjusted to 3g (1989 version 6, edition of 6);

--- Canceled heated to reflux for sample dissolution (1989 version 6, edition of 6).

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

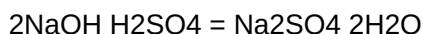
GB/T 12010 in this section specifies the method for determining the content of polyvinyl alcohol, sodium hydroxide material by titration.

This section applies to the determination of degree of hydrolysis greater than 70% (mole fraction) of the polyvinyl alcohol content of sodium hydroxide 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.

Preparation of GB/T 601 chemical reagent standard titration solution GB/T 603 chemical reagent in test methods - Preparations with Laboratory use specifications and test methods GB/T 6682 Analysis Principle 3 the sample is dissolved in water, adding an excess of sulfuric acid in the sample of sodium hydroxide and sodium hydroxide standard titration solution and then titrated excess Sulfuric acid content of the sample is calculated sodium hydroxide. The reaction equation is.



4 Reagents

When this part of the reagents and water, unless otherwise specified, refer to analytically pure reagents and GB/T 6682 in the third grade water.

As used in this part of the standard solution, preparations and products, except where noted according to GB/T 601, GB/T 603 formulation.

4.1 Sulfuric acid standard titration solution. c 12H₂SO

$\div 4 = 0.1\text{mol/L}$.

4.2 sodium hydroxide standard titration solution. c (NaOH) = 0.1mol/L.

4.3 Phenolphthalein solution. 10g/L ethanol solution.

5 Instruments

5.1

Balance. accurate to 0.001g.

5.2

Erlenmeyer flask. 500mL.

5.3

Buret. 10mL, accurate to 0.05mL.

5.4

cylinder (cup).200mL.

5.5

dissolution device. can be heated and stirred.

6 Steps

Weigh the sample 3g, accurate to 0.001 g of, moved within 500mL conical flask, was added 200mL of water, was added 1 drop 1-2 drops of phenolphthalein solution Solution (4.3), accurately added 5.00mL sulfuric acid standard titration solution (4.1), the Erlenmeyer flask into the dissolution apparatus and heated sample is completely dissolved solution. After the sample is dissolved, remove the Erlenmeyer flask, cooled and titrated with sodium hydroxide standard solution (4.2) test solution was titrated to a pink to 30s