



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

GB/T 39748.9-2021

**Urine-absorbing aids for incontinence - Test methods for
characterizing polymer-based absorbent materials - Part 9:
Gravimetric determination of density**

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Foreword

GB/T 39748 "Test Method for Characteristics of Polymer Matrix Absorbent Materials for Urine Absorption Aids for Incontinence" is divided into the following parts.

- Part 1.Determination of pH;
- Part 2.Determination of residual monomer content;
- Part 3.Determination of particle size distribution by sieving method;
- Part 4.Determination of moisture content by heating weight loss method;
- Part 5.Determine the water absorption rate by weighing method in normal saline;
- Part 6.Gravimetric method to determine the retention rate of normal saline after centrifugation;
- Part 7.Gravimetric method to determine the amount of liquid absorbed under pressure;
- Part 8.Determination of flow by weighing method;
- Part 9.Determination of density by weighing method;
- Part 10.Potentiometric titration method to determine the amount of extractable polymer;
- Part 11.Determination of the content of inhalable particles.

This part is Part 9 of GB/T 39748.

This section was drafted in accordance with the rules given in GB/T 1.1-2009.

The translation method used in this section is equivalent to the ISO 17190-9.2001 "Characteristics of Polymer Matrix Absorbent Materials for Incontinence Urine Absorption Devices"

Test methods for sex. Part 9. Density determination by gravimetric method."

The Chinese documents that have a consistent correspondence with the international documents cited in this section are as follows.

---GB/T 10739-2002 Standard atmospheric conditions for handling and testing of paper, paperboard and pulp samples (equiv ISO 187.1990);

---GB/T 6379.2-2004 Measurement method and accuracy of results (accuracy and precision) Part 2. Determine standard measurement

The basic method of measurement method repeatability and reproducibility (ISO 5725-2.1994, IDT).

Introduction

The GB/T 39748 series of test methods were originally formulated by the European Disposable Nonwovens Association, without technical modification, and integrated into ISO 17190 is an international standard published in 11 parts.

These test methods have been used in practice for many years, and their reliability is measured according to the general standards (validity and reproducibility, etc.) of the test methods.

It has been proved that it is suitable for the detection of sodium polyacrylate superabsorbent materials for sanitary products, including the detection of urine absorbent materials for incontinent persons. These trials

The test method is specifically used for testing materials, and is not applicable or applicable to the testing of finished urine absorbents.

Urine absorption aids for incontinence

Testing method of polymer matrix absorbent material properties

Part 9. Determination of Density by Gravimetric Method

1 Scope

This part of GB 39748 specifies the method for measuring the density of polyacrylate super absorbent powder used in urine absorption aids for incontinence.

This section applies to the density determination of 0.67g/mL~0.72g/mL (see Appendix A),

and is expected to be applicable to a larger range.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated reference documents, the latest version (including all amendments) is applicable to this document.

ISO 187 Standard atmospheric conditions for the treatment and testing of paper, paperboard and pulp samples (Paper, board and pulps-Standard atmospheric conditions for conditioning and testing)

ISO 5725-2 Measurement methods and accuracy of results (accuracy and precision) Part 2. Determination of repeatability of standard measurement methods

The basic method of reproducibility (Accuracy (trueness and precision) of measurement methods and results-Part 2.

Basic method for the determination of repeatability and reproducibility of a standard measurement method)

ISO / T R15510 stainless steel chemical composition (Stainless Steels-Chemical composition)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Apparent density

The mass per unit volume after the powder falls freely.

Note. The apparent density is expressed in grams/ml.

4 General

Pour the sample into the funnel, leak into the density cup, and determine the apparent density of the polyacrylate super absorbent powder. Mass in grams, volume

In milliliters, the mass of the sample is divided by the volume of the density cup to calculate the apparent density of the polymer.

5 Instruments

5.1 Density cup (see Figure 1), stainless steel cylinder, smooth inner wall, parameters are as follows.

---Capacity (100 $\pm$ 0.5) mL;

---Inner diameter (45 $\pm$ 0.1)mm;

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