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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 39748.10-2021

Urine-absorbing aids for incontinence - Test methods for characterizing polymer-based absorbent materials - Part 10: Determination of extractable polymer content by potentiometric titration

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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 amount of respirable particles.

This part is Part 10 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 part is equivalent to the ISO 17190-10.2001 "Characteristics of Polymer Matrix Absorbent Materials for Incontinence Urine Absorption Aids"

Test methods for performance. Part 10.Potentiometric titration method to determine the amount of extractable polymer.

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 (eqvISO 187.1990);

---GB/T 6682-2008 Analytical laboratory water specifications and test methods (ISO 3696.1987, MOD);

---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

An international standard, issued in 11 parts.

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

It has been proved that it is suitable for sodium polyacrylate superabsorbent materials used in sanitary products, including urine absorption aids used by incontinent persons. These trials

The test method is exclusively used for testing materials, and is not applicable and not applicable to the testing of finished urine absorption aids.

Urine absorption aids for incontinence

Testing method of polymer matrix absorbent material properties

Part 10.Determination of Potentiometric Titration

Extractable polymer amount

1 Scope

This part of GB/T 39748 specifies the carboxylic acid groups of different chain lengths that can be extracted by polyacrylate (PA) super absorbent powder in brine.

Method for measuring mass fraction.

This test method is used for extractable polymer mass fractions ranging from 5.29% to 9.00% (see Appendix A), but it is expected to be suitable for more

A wide range of.

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, boardandpulps-Standard

atmosphereforconditioningandtestingandprocedureformonitoringtheatmosphereandconditioning

ofsamples)

ISO 3696 Analytical laboratory water characteristics and test methods (Waterforanalyticallaboratoryuse-Specification

andtestmethods)

ISO 5725-2 Measurement methods and accuracy of results (accuracy and precision) Part 2.Determining the repetition of standard measurement methods

The basic method of performance and reproducibility [Accuracy(truenessandprecision)ofmeasurementmethodsandresults-Part

2 Basicmethodforthedeterminationofrepeatabilityandreproducibilityofa standardmeasurement

method]

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Extractables

The sum of the soluble acid and carboxylate groups extracted from the super absorbent powder, where the carboxylate groups can be monomers, oligomers or

polymer.

3.2

Saltgroup

Alkali metal salts of carboxylate groups, also known as neutralizing carboxylates.

3.3

Acidgroup

Carboxylate group.