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

**GB/T 8291-2023**

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**Rubber latex - Determination of coagulum content (sieve  
residue)**

胶乳 凝块含量（筛余物）的测定

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## Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents" Drafting. This document replaces GB/T 8291-2008 "Determination of clot content (sieve residue) of concentrated natural latex" and is consistent with GB/T 8291-2008. In comparison, in addition to structural adjustments and editorial changes, the main technical changes are as follows:

- a) Changed the scope (see Chapter 1, Chapter 1 of the 2008 edition);
- b) Added a  $45\mu\text{m}\pm 5\mu\text{m}$  test sieve (see 3.2, 6.1, 8.4);
- c) The provisions of "anionic surfactants" in "Reagents" have been changed (see 5.1, 5.1 of the 2008 edition);
- d) Added the CAS number of the reagent (see
- e) Added nonionic surfactants for synthetic latex (see 5.2);
- f) Increased the pH value range of pH test paper (see 5.3, 5.2 of the 2008 edition);
- g) The "coarse filter screen" and "test filter screen" in "instrument" are merged into "test filter", and the requirements are changed (see 6.1, 2008 edition 6.1, 6.2);
- h) Added normative reference document GB/T 14014 (see 6.1);
- i) Added requirements for dryers (see 6.5);

j) The calculation formula has been changed (see Chapter 9, Chapter 9 of the.2008 edition);

## 1 Scope

GB/T 8291-2023 gives the determination of coagulum content, the sieve residue, in rubber latex. Concentrated natural latex is shipped and stored as a suspension that is always on the point of coagulating, and the small clots it forms are the defect that matters downstream: in dipping lines they become the pinhole in a glove or a condom, and in foam and adhesive lines they block the equipment. The sieve residue is the direct measure of how much of it a drum contains, and is therefore a routine acceptance test. The standard sets the principle, the reagents and materials, the apparatus, the sampling, the test procedure, the expression of results, the precision and the test report, with an informative annex on the precision data. It replaces GB/T 8291-2008 and took effect on 1 March 2024.

This document describes a method for the determination of the curd content (sieve residue) of concentrated natural and synthetic latex. This document is applicable to the determination of concentrated natural latex and synthetic latex. It is not applicable to the preparation of concentrated natural latex and synthetic latex as raw materials. Determination of curd content (sieve residue) of synthetic latex and vulcanized latex.

## 2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document.

GB/T 6003.1 Technical requirements and inspection of test sieves Part

## 3 Terms and definitions

The following terms and definitions apply to this document.

3.1 laboratory sample laboratory sample A quantity of latex that represents a batch of latex and is used for laboratory examination and testing.

3.2 coagulum content Sieve residue Under the test conditions, the hole width remaining in compliance with GB/T 6003.1 is  $180\mu\text{m}\pm 10\mu\text{m}$  or  $45\mu\text{m}\pm 5\mu\text{m}$  (for coating A substance composed of foreign impurities and flocculated rubber on the test sieve of carboxylated styrene-butadiene latex for cloth and paper).

Note. Laboratory samples do not include latex surface crust and coarse coagulated rubber. These materials have passed a roughness of  $710\mu\text{m} \pm 25\mu\text{m}$  before starting the test. Filter

out.

#### 4 Principles

The coarsely filtered laboratory sample is mixed with surfactant, and then filtered through a test sieve with a specified mesh, and the uncoagulated material on the test sieve is washed away. The latex was dried and sieved to determine the clot content.