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

GB/T 17821-2025

Replacing GB/T 17821-2008

Rubber latex - Determination of density between 5 ° and 40 °

胶乳 5°C至40°C密度的测定

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document replaces GB/T 17821-2008 "Determination of density of latex at 5°C to 40°C". Compared with GB/T 17821-2008, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) The scope has been changed (see Chapter 1, Chapter 1 of the 2008 edition);
- b) the term "concentrated natural rubber latex" has been deleted (see 3.2 of the 2008 edition);
- c) Added a chapter on "Principles" (see Chapter 4);
- d) The sampling procedure has been changed (see Chapter 6, Chapter 5 of the 2008 edition);
- e) Added provisions on temperature correction (see 7.2);
- f) Added the recommendation on determination at standard temperature (see 7.4).

This document is modified to adopt ISO 705:2015 "Determination of density of latex at 5°C to 40°C".

This document has the following structural adjustments compared to ISO 705:2015.

--- Added the introduction and placed the content of ISO 705:2015 Chapter 1 that belongs to the purpose statement.

The technical differences between this document and ISO 705:2015 and their reasons are as follows.

--- Changed the scope (see Chapter 1, Chapter 1 of ISO 705:2015) to adapt to the provisions of GB/T 1.1-2020;

--- The term "concentrated natural rubber latex" (see 3.2 of ISO 705:2015) has been deleted to adapt to the modification of the scope;

--- Changed the principle (see Chapter 4, Chapter 4 of ISO 705:2015) to provide a reasonable explanation of the principle;

--- ISO 123 (see Chapter 6) has been replaced by the normative reference GB/T 8290 to adapt to the provisions of my country on latex sampling;

--- Added provisions on temperature correction (see 7.2) to adapt to my country's technical conditions and increase operability;

--- Change "should be as close as possible to the temperature of latex" to "preferably as close as possible to the temperature of latex" (see 7.3, ISO 705:2015 7.3), to avoid contradictions;

--- Added recommendations on determining the density of latex samples at standard temperature (see 7.4) to better meet the test requirements.

Introduction

This document is intended for use in calculating the density of a measured volume of glue where direct weighing or controlled laboratory temperature is not possible.

Formulated for the quality of milk.

Determination of density of latex at 5°C to 40°C Warning. People who use this document need to have practical experience in formal laboratory work. This document does not address all possible safety issues.

The user is responsible for taking appropriate safety and health measures and ensuring that the conditions stipulated by relevant national laws and regulations are met.

1 Scope

This document describes the principle of determining the density of latex at a temperature of 5°C to 40°C and specifies the measuring instrument, sampling, test procedures,

Expression of results and contents of test report.

This document is applicable to various natural rubber latexes as well as synthetic latexes, compounded latexes and pre-vulcanized latexes, and also to rubber aqueous dispersions.

The temperature corrections listed in 8.2 of this document may not always apply to the above latexes.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

GB/T 8290 Latex Sampling (GB/T 8290-2021, ISO 123:2001, MOD)

3 Terms and definitions

The following terms and definitions apply to this document.

density

The mass divided by the volume at a specified temperature.

Note: Density is expressed in megagrams per cubic meter (Mg/m³).

4 Principle

Fill a density bottle with latex sample and calculate the density of the latex sample from the mass of latex in the density bottle and the known volume of the density bottle.

5.1 Density bottle (specific gravity bottle)

The capacity is 50 mL, with a ground glass stopper, a capillary passing through the stopper, and a ground glass cover (see Figure 1).