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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 14796-2023

Raw natural rubber - Colour index test

天然生胶 颜色指数测定法

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Table of Contents

1 Scope

2 Normative reference documents

3 Terms and definitions

4 Principles

5 Equipment and materials

6 Test step 5 7 results show

7 Reference

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 14796-2008 "Method for Determination of Color Index of Natural Raw Rubber". Compared with GB/T 14796-2008, except for the In addition to structural adjustments and editorial changes, the main technical changes are as follows:

a) Added the method of measuring color index using color spectrophotometer (see Chapter 1, Chapter 4, 5.8, 6.3, 6.4.2);

b) Added a "Terms and Definitions" chapter (see Chapter 3);

c) Changed the "principle" (see Chapter 4, Chapter 4 of the.2008 edition);

d) Added "thickness gauge" and normative reference document GB/T 2941 (see 5.4);

e) Changed the regulations on sheet thickness of cutting machines (see 5.5,

4.4 of the.2008 edition);

f) The regulations on sample mass, number of roll passes and sheet thickness in "Sample Preparation" have been changed (see 6.2,

5.2 of the.2008 edition). This document is modified to adopt ISO 4660.2020 "Natural Raw Rubber Color Index Determination Method". Compared with ISO 4660.2020, this document has made the following structural adjustments.

5.5 corresponds to

5.4 of ISO 4660.2020,

5.9 corresponds to

5.5 of ISO 4660.2020;

1 Scope

GB/T 14796-2023 gives the colour index test for raw natural rubber. Colour is the first thing a buyer judges a bale of natural rubber on, because a dark rubber signals poor coagulation, contamination or overheating during drying, and because a light-coloured rubber is required for any product that is not black - shoe soles, medical goods, adhesives. The index is obtained by comparing a moulded disc of the rubber against a set of reference glasses, which is quick and requires no instrument but has to be done under controlled conditions to be reproducible. The standard sets the principle, the apparatus, the preparation of the test piece, the procedure and the expression of the result, with an informative annex reporting a comparative study of the determination methods. It replaces GB/T 14796-2008 and took effect on 1 March 2024.

This document describes 2 methods for determining the color of natural raw rubber according to standard color standards.

---Method A. Color comparison with standard color glass pieces;

---Method B. Determine the color with a color spectrophotometer. This document is applicable to the determination of color index of natural raw rubber. In case of dispute, Method B is the preferred method.

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 2941 Rubber physical test methods General procedures for specimen preparation and adjustment

GB/T 6038 Rubber test compound batching, mixing and vulcanization equipment and operating procedures (GB/T 6038-2006, ISO 2393. 1994,MOD)

GB/T 15340 Natural and synthetic raw rubber sampling and sample preparation methods (GB/T 15340-2008, ISO 1795.2000, IDT)

3 Terms and definitions

There are no terms or definitions to be defined in this document.

4 Principles

Press the raw rubber into a disk-shaped sample according to the specified thickness. Method A. Compare the above sample with the standard color glass piece, and try to match the color of the two as much as possible. When comparing colors should be done on a diffuse day Conducted under light and against a matte white background. Color comparators that position and shield the sample from the standard glass are preferred. Method B. Use a color spectrophotometer to automatically compare and match the color of the specimen. Appendix A provides more information on the comparative study between Method A and Method B.

5 Equipment and materials

5.1 Laboratory open rubber mixer Should comply with the provisions of GB/T 6038.