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**PHARMACEUTICAL INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

YY 0272-2023

Replacing YY 0272-2009

**Dentistry - Zinc oxide/eugenol cements and zinc
oxide/non-eugenol cements**

牙科学 氧化锌丁香酚水门汀和不含丁香酚的氧化锌水门汀

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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 YY 0272-2009 "Dental zinc oxide/eugenol cements and eugenol-free zinc oxide cements" and is consistent with Compared with YY 0272-2009, in addition to structural adjustments and editorial changes, the main technical changes are as follows:

a) Delete Type I and Type 2 non-curing cements, Type II permanent cements and Type IV cavity linings (see.2009 edition of Chapter 3);

b) The 24h water dissolution volume and corresponding test methods in the requirements are deleted (see

6.5 of the.2009 version);

c) The requirements for "24h compressive strength of type II bottoming and temporary filling materials" have been changed (see Chapter 5,

4.1 of the.2009 edition);

d) Changed the requirement of "minimum curing time at 37°C" (see Chapter 5,

4.1 of the.2009 edition);

e) The equivalent loading device and glass sheet fixing device in Figure 5 are deleted (see 7.4.1.2,

6.4.1.2 of the.2009 edition). This document has been modified to adopt ISO 3107.2011 "Zinc oxide/eugenol cements and eugenol-free zinc oxide cements for dentistry". The technical differences between this document and ISO 3107.2011 are as follows:

5.2 Biocompatibility. Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

This document is proposed by the National Medical Products Administration. This document is under the jurisdiction of the National Standardization Technical Committee for Dental Materials and Equipment (SAC/TC99). The previous versions of this document and the documents it replaces are as follows:

---ZBC33018-1986;

---YY 0272-1995;

1 Scope

YY 0272 is the mandatory Chinese standard for zinc oxide cements, both the traditional eugenol-containing type and the eugenol-free alternatives used where eugenol would interfere with a later restoration. These are the workhorse cements of everyday dentistry: temporary fillings, provisional cementation, cavity liners and root canal sealers. The document sets the requirements such a cement has to meet and the test methods that verify them, covering setting time, film thickness, compressive strength, solubility and the handling behaviour a dentist depends on at the chairside. Being a YY standard without the /T suffix, compliance is compulsory in China. The 2023 edition replaces YY 0272-2009 and took effect in July 2025, so a manufacturer whose specification still cites the 2009 text is working to a superseded document.

This document specifies non-aqueous zinc oxide/eugenol cements for temporary cementing, underlaying and temporary filling in dental restorations, and Requirements for temporary cementing using eugenol-free cements containing zinc oxide and aromatic oils. This document applies to non-aqueous zinc oxide/eugenol cements used for temporary cementing, underlayment and temporary filling in dental restorations, and For temporary cementation, use eugenol-free cement containing zinc oxide and aromatic oils.

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.

ISO 1942 Dentistry-Vocabulary

GB/T 9937-2020 Dental terminology (ISO 1942.2009, MOD)

ISO 2590 General method for determination of arsenic content in chemical products. Silver diethyldithiocarbamate photometric method (General and test methods)

GB/T 6682-2008 Specifications and test methods for water used in analytical laboratories (ISO 3696.1987, MOD)

GB/T 7408-2005 Data elements and exchange formats Information exchange date and time representation (ISO 8601.2000, IDT)

3 Terms and definitions

The terms and definitions defined in ISO 1942 apply to this document.

4 Categories

Cement is classified according to its intended use as follows:

- a) Type I. for temporary cementing;
- b) Type II. used for bottoming and temporary filling.

5 Requirements

The test shall be carried out in accordance with the test methods specified in Chapter

7. Type I and II cements shall comply with the performance requirements specified in Table 1.