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

GB/T 46606.3-2025

**Plastics - Melamine/phenolic powder moulding compounds
(MP-PMCs) - Part 3: Requirements for selected moulding
compounds**

塑料 粉状三聚氰胺/酚醛模塑料 (MP-PMCs) 第3部分：选定模塑料的要求
(English Translation)

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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 is Part 3 of GB/T 46606 "Powdered melamine/phenolic molding compounds (MP-PMCs)".

The following sections have been released.

- Part 1: Naming Systems and Classification Basics;
- Part 2: Sample Preparation and Performance Determination;
- Part 3: Requirements for Selecting the Molding Compound.

This document is modified to adopt ISO 14529-3:1999 "Plastics - Powdered melamine/phenolic molding compounds (MP-PMCs) - Part 3: Selection".

Requirements for fixed molded plastics.

This document has undergone the following structural adjustments compared to ISO 14529-3:1999.

- Tables 1 and 2 in section 4.1 correspond to Tables 1 and 2 in section 4.2 of ISO 14529-3:1999;
- Section 5.3, paragraph 2 corresponds to paragraph 2 of 4.1 in ISO 14529-3:1999;
- Chapter 5 has been added;
- Chapter 6 has been added;

---Chapter 7 has been added.

The technical differences between this document and ISO 14529-3:1999, and the reasons therefor, are as follows.

---The scope has been changed (see Chapter 1) to meet the requirements for drafting Chinese standards;

---ISO 14529-1 (see Chapter 3, 4.2) has been replaced with the normatively referenced GB/T 46606.1-2025 to adapt to my country's technical standards.

Improve technical conditions and increase operability;

---ISO 14529-2 (see Chapter 3, 4.2, 5.1, 5.2, 5.3) has been replaced by the normatively referenced GB/T 46606.2-2025 to adapt to...

To enhance operability based on my country's technological capabilities;

---ISO 472 (see Chapter 3) has been replaced with the normatively referenced GB/T 2035 to adapt to my country's technical conditions and increase operability.

Actual nature;

---The dielectric loss factor test conditions were changed from 100Hz to 1MHz (see Tables 1 and 2) to adapt to my country's technical conditions;

---The normative reference GB/T 2547 (see 6.1.2) has been added to adapt to my country's technical conditions and increase operability.

The following editorial changes have been made to this document.

---Note 3 has been added to Table 1 to explain the filler/reinforcing material type code "L";

---Informative Appendix A, "Name Comparison," has been deleted.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China Petroleum and Chemical Industry Federation.

This document is under the jurisdiction of the National Technical Committee on Plastics Standardization (SAC/TC15).

Introduction

Powdered melamine/phenolic molding compounds have wide applications in electronics, automotive parts, and daily necessities. Developing formulations suitable for my country...

The national standards for powdered thermosetting molding compounds aim to improve the standard system, regulate product manufacturing, and promote technological progress. They also benefit the country's...

International exchanges and elimination of trade barriers.

GB/T 46606 "Powdered melamine/phenolic molding compounds (MP-PMCs)" is proposed to consist of three parts.

---Part 1: Nomenclature System and Classification Basis. The aim is to define the classification and nomenclature of powdered melamine/phenolic molding compounds.
rule.

---Part 2: Specimen Preparation and Performance Testing. The aim is to provide specimen preparation methods for evaluating the properties of powdered melamine/phenolic molding compounds.

The testing methods and the sample preparation methods.

---Part 3: Requirements for Selected Molding Compounds. The aim is to select six typical types of powdered melamine/phenolic molding compounds and specify their requirements.

Mechanical properties, thermal properties, electrical properties and other performance requirements.

Powdered melamine/phenolic molding compound (MP-PMCs) Part 3: Requirements for Selecting Molding Compounds

1 Scope

This document specifies the physical and chemical properties of powdered melamine/phenolic molding compounds (MP-PMCs) and their compression or injection molded specimens.

The requirements, inspection rules, marking, packaging, transportation and storage of powdered melamine/phenolic molding compounds (MP-PMCs) are described, along with test methods.

This document applies to six selected categories of powdered melamine/phenolic molding compounds.

Note 1: The test methods and conditions used to characterize the properties of molding compounds are selected from GB/T 46606.2-2025.

Note 2: Molding compounds are classified into different types according to their composition and properties. The naming of different types of molding compounds is specified in GB/T 46606.1-2025.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 2035 Plastics Terminology (GB/T 2035-2024, ISO 472:2013, NEQ) GB/T 2547 Sampling Methods for Plastics GB/T 46606.1-2025 Powdered melamine/phenolic molding compounds (MP-PMCs) Part 1: Nomenclature system and classification Class Foundations (ISO 14529-1:1999, MOD) GB/T 46606.2-2025 Powdered melamine/phenolic molding compounds (MP-PMCs) - Part 2: Specimen preparation and properties it can determine (ISO 14529-2:1999, MOD).

3 Terms and Definitions

The terms and definitions defined in GB/T 2035, GB/T 46606.1-2025 and GB/T 46606.2-2025 apply to this document.

4.1 Performance Values

Powdered melamine/phenolic molding compounds conforming to this document shall meet the performance requirements given in Table 1 or Table 2.

No specific limitations are given regarding rheological and molding properties. However, suitable rheological and molding properties are fundamental for molding compounds to meet their intended use.

The supply and demand parties should agree on the testing methods and conditions.

In addition, for some applications, other performance data may be required, such as.

---Curing time;

---Particle size;

---Moisture content.

If necessary, these performance characteristics, as well as the testing methods and conditions used, should also be agreed upon by the supplier and the buyer.