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

GB/T 46606.2-2025

**Plastics - Melamine/phenolic powder moulding compounds
(MP-PMCs) - Part 2: Preparation of test specimens and
determination of properties**

**塑料 粉状三聚氰胺/酚醛模塑料 (MP-PMCs) 第2部分: 试样制备和性能测定
(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 2 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 14529-2:1999 "Plastics - Powdered melamine/phenolic molding compounds (MP-PMCs) - Part 2: Testing".

Sample preparation and performance determination.

This document differs significantly from ISO 14529-2:1999. The relevant clauses are indicated in vertical margins.

Straight lines (|) are marked. A summary of these technical differences and their reasons can be found in Appendix A.

The following editorial changes have been made to this document.

- ISO 4896 and ISO 14529-3, which were not mentioned in the text, have been removed from the normative references;
- Added a note for the term "thermal flow" (see 3.1).

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 2: Sample Preparation and Performance testing

1 Scope

This document specifies the sample preparation method and performance testing method for powdered melamine/phenolic molding compounds (MP-PMCs), and provides...

The requirements for the processing of the test material and the requirements for conditioning the test material and the sample before molding and testing.

This document applies to the sample preparation process and performance testing of powdered melamine/phenolic molding compounds (MP-PMCs), and provides specifications for sample preparation.

The preparation steps and conditions, as well as the methods for performance testing using these samples, are outlined, along with the applicable and necessary performance characteristics for characterizing PMCs.

and its experimental methods.

Note 1: Performance items are selected from the general test methods in GB/T 19467.1. Other widely used test methods or those of particular significance to PMCs are also included.

The features described in this document are similar to those in GB/T 46606.1-2025.

Note 2: Using the sample preparation methods, conditioning methods, sample dimensions and test procedures specified in this document is beneficial for obtaining reproducible and comparable test results.

Test results obtained using different sample sizes or different preparation methods may not be consistent.

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 1033.1 Determination of density of non-foamed plastics - Part 1: Impregnation method, liquid pyrometer method and titration method (GB/T 1033.1-2008, ISO 1183-1:2004, IDT) GB/T 1034 Determination of water absorption of plastics (GB/T 1034-2008, ISO 62:2008, IDT) GB/T 1040.1 Determination of tensile properties of plastics - Part 1: General (GB/T 1040.1-2025, ISO 527-1:2019) MOD) GB/T 1040.2 Determination of tensile properties of plastics - Part 2: Test conditions for molded and extruded plastics (GB/T 1040.2-2022, ISO 527-2:2012, MOD) GB/T 1043.1 Determination of impact properties of simply supported plastic beams - Part 1: Non-instrumental impact testing (GB/T 1043.1-2008, ISO 179-1:2000, IDT) GB/T 1408.1 Electrical strength test methods for insulating materials - Part 1: Power frequency test (GB/T 1408.1-2016) IEC 60243-1:2013, IDT GB/T 1409 Measurement of permittivity and dielectric loss factor of electrical insulating materials at power frequency, audio frequency, and high frequency (including meter wave wavelength) the recommended methods (GB/T 1409-2006, IEC 60250:1969, MOD) GB/T 1634.2 Determination of deformation temperature under load for plastics - Part 2: Plastics and hard rubber (GB/T 1634.2-2019) ISO 75-2:2013, MOD) GB/T 1636 Determination of apparent density of plastics that can flow from a specified funnel (GB/T 1636-2008, ISO 60:1977) MOD) GB/T 2035 Plastics Terminology (GB/T 2035-2024, ISO 472:2013, NEQ) GB/T 2406.2 Determination of flammability of plastics by oxygen index method - Part 2:

Tests at room temperature (GB/T 2406.2-2009)