

ICS 83.080.20

CCS G 31



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

GB/T 46827.2-2025

**Plastics - Methyl methacrylate-acrylonitrile-butadiene-styrene
(MABS) moulding and extrusion materials - Part 2: Preparation
of test specimens and determination of properties**

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(English Translation)

Issued on: December 2, 2025

Implemented on: July 1, 2026

Issued by: State Administration for Market Regulation

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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 GB/T 46827 "Methyl methacrylate-acrylonitrile-butadiene-styrene (MABS) Molding and Extrusion Materials".

Part 2 of GB/T 46827 has been published, including the following parts.

---Part 1: Naming Systems and Classification Basics;

---Part 2: Sample preparation and performance determination.

This document is modified to adopt ISO 19066-2:2020 "Methyl methacrylate-acrylonitrile-butadiene-styrene (MABS) molding".

"Extruded Materials, Part 2: Sample Preparation and Performance Testing".

This document has undergone the following structural adjustments compared to ISO 19066-2:2020.

---The first paragraph of 4.1 corresponds to the last paragraph of Chapter 1 of ISO 19066-2:2020;

---Appendix B corresponds to Appendix A in ISO 19066-2:2020.

This document differs significantly from ISO 19066-2:2020. The relevant clauses are indicated in the margins using vertical markers.

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.

- a) Added instructions on material drying treatment before molding (see note 4.2);
- b) Added instructions for preparing test specimens by punching after compression molding

(see note 4.4);

c) A description of the contact pressure has been added (see the notes in Table 2);

d) An Appendix A (informative) has been added, "Technical differences between this document and ISO 19066-2:2020 and the reasons thereof." 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

GB/T 46827 "Methyl methacrylate-acrylonitrile-butadiene-styrene (MABS) molding and extrusion materials" is proposed to be divided into two standards.

Partial composition.

---Part 1: Naming System and Classification Basis. The aim is to establish a standard naming convention applicable to MABS materials.

Formulas and classification principles.

---Part 2: Sample Preparation and Performance Measurement. The aim is to establish suitable sample preparation methods and performance measurement techniques for MABS materials.

Define the project, methods, and conditions.

Plastic methyl methacrylate-acrylonitrile-butadiene-MABS molding and extrusion materials
Part 2: Sample Preparation and Performance Determination

1 Scope

This document describes the sample preparation and performance testing of methyl methacrylate-acrylonitrile-butadiene-styrene (MABS) molding and extrusion materials.

The document specifies the methods. It also specifies the requirements for the pretreatment of test materials and the conditioning of specimens before testing.

This document describes the methods and conditions for preparing MABS molding and extrusion material specimens, as well as the methods for measuring the material properties of these specimens.

This document outlines the appropriate and necessary test methods for characterizing the properties of MABS molding and extrusion materials.

These properties were selected from the general test methods of GB/T 19467.1. This document also lists the wide applications of molding and extrusion materials.

Other test methods that have special significance, as well as test methods for named performance in GB/T 46827.1.

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 1033.2 Determination of density of non-foamed plastics - Part 2: Density gradient column method (GB/T 1033.2-2010) ISO 1183-2:2004, MOD) GB/T 1033.3 Determination of density of non-foamed plastics - Part 3: Gas pycnometer method (GB/T 1033.3-2010) ISO 1183-3:1999, IDT GB/T 1034 Determination of water absorption of plastics (GB/T 1034-2008, ISO 62:2008, IDT) 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 1040.4 Determination of tensile properties of plastics - Part 4: Isotropic and orthotropic fiber-reinforced composites Test conditions (GB/T 1040.4-2006, ISO 527-4:1997, IDT) 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 1043.2 Determination of impact properties of simply supported plastic beams - Part 2: Instrumented impact testing (GB/T 1043.2-2018, ISO 179-2:1997, 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 1633 Determination of Vicat softening temperature (VST) of thermoplastic plastics (GB/T 1633-2000, ISO 306.

1994, IDT)

GB/T 1634.1 Determination of temperature of deformation under load for plastics - Part 1: General test methods (GB/T 1634.1-2025) ISO 75-1:2020, MOD)