

ICS 83.080.20

CCS G 31



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

GB/T 21460.2-2025

Replacing GB/T 21460.2-2008

**Plastics - Styrene-acrylonitrile (SAN) moulding and extrusion
materials - Part 2: Preparation of test specimens and
determination of properties**

**塑料 苯乙烯-丙烯腈 (SAN) 模塑和挤出材料 第2部分: 试样制备和性能测定
(English Translation)**

Issued on: December 2, 2025

Implemented on: July 1, 2026

Issued by: State Administration for Market Regulation

Table of Contents

- Foreword
- Introduction
- 1 Scope
- 2 Normative references

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 21460 "Plastics - Styrene-Acrylonitrile (SAN) Molding and Extrusion Materials". GB/T 21460 the following sections have been released.

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

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

This document replaces GB/T 21460.2-2008 "Plastics - Styrene-Acrylonitrile (SAN) Molding and Extrusion Materials - Part 2: Samples" Compared with GB/T 21460.2-2008, the main technical changes in "Preparation and Performance Determination" are as follows, except for structural adjustments and editorial modifications.

a) The cooling rate in the sample compression molding conditions table was changed from "10°C/min" to "(10±2)°C/min" (see...

4.4 (3.3 in the 2008 edition)

b) The description of specimen conditioning has been revised, with conditioning requirements now described separately for different performance characteristics (see Chapter 5, 2008 edition).

Chapter 4);

c) Notes on melt mass flow rate and melt volume flow rate test conditions and additional instructions have been added (see Table 3);

d) Tensile yield stress, nominal strain at tensile fracture, stress at 50% strain, and tensile fracture stress were added, and were categorized according to whether or not the fracture occurred.

The test conditions and additional instructions for the clothing have been changed (see

Table 3);

e) The sample size for the Vicat softening temperature was changed from "10x10x4" to ">=10x>=10x4" (see Table 3).

Table 3 (2008 edition)

f) The test conditions and additional instructions for flammability have been changed, and the specimen thickness "3.0 mm" and flammability rating "HB@3.0 mm" have been added.

(See Table 3, 2008 edition);

g) The sample size was increased to ">=60x>=60x1" for relative permittivity, dielectric loss factor, surface resistivity, and volume resistivity.

(See Table 3);

h) The sample size relative to the tracking index was changed from ">=15x>=15x4" to ">=20x>=20x4" (see

Table 3 (Table 3 of the 2008 edition);

i) The "M" for hygroscopic sample preparation has been removed (see Table 3 in the 2008 edition);

j) Density test conditions were added; the density test temperature was 23°C or 27°C (see Table 3).

k) Mechanical property tests for the unnotched impact strength of cantilever beams were added (see Table 4).

This document is modified to adopt ISO 19064-2:2020 "Plastics - Styrene-acrylonitrile (SAN) molding and extrusion materials - Part 2: Test materials".

Sample preparation and performance determination.

Compared with ISO 19064-2:2020, this document has undergone the following structural adjustments.

---Appendix B corresponds to Appendix A in ISO 19064-2:2020.

This document differs significantly from ISO 19064-2:2020. 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.

---Added instructions on material drying treatment before molding (see note 4.2);

---Added instructions for preparing test specimens by punching after compression molding

(see note 4.4);

---Added explanation of contact pressure (see the notes in Table 2);

---Added footnotes regarding sample preparation (see Tables 3 and 4);

---Added Appendix A (informative) "Technical differences between this document and ISO 19064-2:2020 and their reasons".

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 21460 is the basic standard for styrene-acrylonitrile (SAN) and provides support for styrene-acrylonitrile (SAN) product standards.

GB/T 21460 has been revised to adopt ISO 19064. Due to changes in the guidelines of the ISO standard, the naming system has been adjusted accordingly, aligning with the sample preparation...

The standard for test methods closely related to equipment and performance determination has been revised, and there are technical differences. Therefore, GB/T 21460 is used.

Revised.

GB/T 21460 "Plastics - Styrene-Acrylonitrile (SAN) Molding and Extrusion Materials" is proposed to consist of two parts.

---Part 1: Naming System and Classification Basis. The aim is to establish a standard model applicable to styrene-acrylonitrile (SAN).

The naming conventions and classification principles of materials.

---Part 2: Sample Preparation and Performance Testing. The aim is to establish a sample preparation method suitable for styrene-acrylonitrile (SAN) materials.

Methods and performance testing items, methods, and conditions.

This document, based on the characteristics of styrene-acrylonitrile (SAN) molding and extrusion materials, specifies unified procedures for sample preparation, condition conditioning, and testing.

The sample size and test conditions, to obtain reproducible and comparable test results, provide the styrene-acrylonitrile (SAN) product standard.

support.

Plastics Styrene-Acrylonitrile (SAN) Molding and Extrusion Materials Part 2: Sample Preparation and Performance Determination

1 Scope

This document describes methods for specimen preparation and performance determination of styrene-acrylonitrile (SAN) molding and extrusion materials. This document also describes...

This involves the pretreatment of the test materials and the conditioning of the specimens before the test.

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

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

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

Other test methods that are widely applicable or of particular significance, as well as the methods for determining the nomenclature performance in Part 1.

This document applies to the preparation and performance determination of styrene-acrylonitrile (SAN) molding and extrusion material specimens.

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