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

GB/T 21460.1-2025

Replacing GB/T 21460.1-2008

**Plastics - Styrene-acrylonitrile (SAN) moulding and extrusion
materials - Part 1: Designation system and basis for
specifications**

塑料 苯乙烯-丙烯腈 (SAN) 模塑和挤出材料 第1部分: 命名系统和分类基础
(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 1 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 21460.1-2008 "Plastics - Styrene-Acrylonitrile (SAN) Molding and Extrusion Materials - Part 1: Nomenclature" Compared with GB/T 21460.1-2008, the main technical changes in "System and Classification Fundamentals" are as follows, apart from structural adjustments and editorial modifications.

a) The range has been changed, with the acrylonitrile content changed from 10%~50% to 5%~50%, and special purpose materials can be specified in character group 5.

The description of additional requirements has been changed to the clauses related to character group 5 (see Chapter 1 and 4.6, Chapter 1 of the 2008 edition);

b) The order of the character groups in the naming feature items group has been changed (see Chapter 4, Chapter 3 of the 2008 edition);

c) Added rounding to the mass fraction of filler and/or reinforcing materials, and figures for filler and/or reinforcing materials with a mass fraction of less than 10%.

The regulations governing the use of codes and the representation of mixtures of multiple materials and/or multiple forms of materials (see 4.3);

- d) The letter codes and physical properties of fillers and/or reinforcing materials have been added (see Table 2);
- e) Letter codes for recommended uses, processing methods, and important properties have been added (see Table 3);
- f) The effective number of digits for melt mass flow rate has been changed (see Table 5, Table 4 in the 2008 edition);
- g) The symbols and ranges for the mass fraction of fillers and/or reinforcing materials have been removed (see Table 6 in the 2008 edition);
- h) The naming example has been changed (see Chapter 5, Chapter 4 of the 2008 edition).

This document is modified to adopt ISO 19064-1:2015 "Plastics - Styrene/acrylonitrile (SAN) molding and extrusion materials - Part 1: Specifications" Name and classification basis.

Compared with ISO 19064-1:2015, this document has undergone the following structural adjustments.

---A chapter on "Terms and Definitions" has been added;

---4.5.1 corresponds to the suspended section below 3.5 in ISO 19064-1:2015;

---4.5.2 and 4.5.3 correspond to 3.5.1 and 3.5.2 of ISO 19064-1:2015, respectively;

---4.6 Paragraph 2 corresponds to the last paragraph of Chapter 1 of ISO 19064-1:2015.

The technical differences between this document and ISO 19064-1:2015, and the reasons therefor, are as follows.

a) The scope has been changed, and a description of the applicable material shapes has been added (see Chapter 1) to make the standard content clearer and easier to understand in this document.

application;

b) ISO 1043-1 (see 4.1) has been replaced with the normatively referenced GB/T 1844.1 to adapt to my country's technical conditions and increase operability.

Actual nature;

c) Normative reference to ISO 1043-2 (see section 4.3 of ISO 19064-1:2015) has been removed to make the standard clearer and easier to understand.

Application of this document;

d) Added a specification for rounding the mass fraction of filler and/or reinforcing materials in character group 2 (see 4.3) to facilitate this document.

application;

e) Added a specification for the designation of the character group 3, which allows for the omission of the base color (N) and/or particle (G) designations (see 4.4), to make the standard specify...

More clearly;

f) ISO 19064-2 (see 4.5.2 and 4.5.3) has been replaced with the normatively referenced GB/T 21460.2 to adapt to my country's technical requirements.

Add components to increase operability;

g) The state conditioning and effective number of melt mass flow rates were modified (see 4.5.3) to adapt to my country's technical conditions and increase the number of...

Operability.

The following editorial changes have been made to this document.

---Added footnotes to normative references explaining the changes in ISO 4894-2 (see Chapter 2);

---Added one example of a naming abbreviation in the naming examples (see Chapter 5).

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 test methods standards closely related to equipment and performance determination have been revised, and there are technical differences. Therefore, GB/T 21460 is being implemented.

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 characteristic performance values and recommended applications.

(or) processing methods, key properties, additives, colorants, fillers, and reinforcing materials, for different types of styrene-acrylonitrile (SAN) molding.

It was distinguished from extruded materials.

Plastics Styrene-Acrylonitrile (SAN) Molding and Extrusion Material Part 1: Naming System and Classification Basis

1 Scope

This document defines a naming system for styrene-acrylonitrile (SAN) thermoplastic materials, which serves as the basis for classification.

Different types of SAN plastic materials are specified with the following characteristic property values, recommended uses and/or processing methods, and important properties.

Additives, colorants, fillers, and reinforcing materials are classified and distinguished using a basic classification system.

a) Vicat softening temperature;

b) Melt mass flow rate.

This document applies to all copolymers of styrene and/or substituted styrene containing 5% to 50% acrylonitrile.

It is used for materials that are normally in powder, granule or fragmented form, and are either unmodified or modified with colorants, additives, fillers, etc.

This document does not apply to foamed materials.

This document does not imply that materials with the same name necessarily have the same properties. This document does not provide information for describing the specific uses and/or applications of materials.

Engineering data, performance data, or process parameters required for the processing