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

GB/T 3402-1994

Replacing GB/T 3402.1-2005

**Plastics - Homopolymer and copolymer resins of vinyl chloride
- Part 1: Designation system and basis for specifications
(English Translation)**

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Table of Contents

- Foreword
- Introduction
- 1 Scope
- 2 Normative references
- 3 Terms and Definitions
- 4 Naming and Standardization System
 - 4.1 General Rules

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 3402 "Plastics - Homopolymers and Copolymers of Vinyl Chloride". GB/T 3402 has published the following...

part.

---Part 1: Naming Systems and Standards Foundations;

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

This document replaces GB/T 3402.1-2005 "Plastics - Homopolymer and Copolymer Resins of Vinyl Chloride - Part 1: Nomenclature and Standards".

a) The provisions regarding "methods used for additional performance testing" (see 1.4 of the 2005 edition) and related "additional requirements" in the "Scope" section have been deleted.

The description (see 1.5 of the 2005 edition);

b) The positions of feature unit 2 and feature unit 4 in the naming system have been changed (see 4.1.1, Chapter 3 of the 2005 edition);

c) The naming system has been changed from "this part number" to "this standard number" (see 4.1.1, Chapter 3 of the 2005 edition);

d) The specifications for the methods used in additional performance testing have been changed (see 4.1.2, 1.4 of the 2005 edition);

- e) The naming examples for filled resins have been removed (see 4.4 in the 2005 edition);
- f) The example names have been changed (see Chapter 5, Chapter 4 in the 2005 edition).

This document is modified to adopt ISO 24024-1:2021 "Plastics - Homopolymers and copolymers of vinyl chloride - Part 1: Nomenclature and specifications".

Base".

This document has undergone the following structural adjustments compared to ISO 24024-1:2021.

---4.1.1 corresponds to section 4.1 of ISO 24024-1:2021, and section 1.5 of ISO 24024-1:2021 is adjusted to section 4.1.1 of this document.

Description of "Feature Unit 5";

---4.1.2 corresponds to part of section 1.4 of ISO 24024-1:2021.

The technical differences between this document and ISO 24024-1:2021, and the reasons therefor, are as follows.

---The scope of application for the named performance "plasticizer absorption at room temperature" in the "Scope" section has been changed [see 1.2 d)], so that 1.2 d) is consistent with...

The wording in 4.5.1 and 4.5.5 is consistent, eliminating ambiguity;

---The provisions regarding the methods used for additional performance testing in the "Scope" section (see 1.4) have been deleted, in accordance with GB/T 1.1-2020;

---ISO 1043-1 (see 4.1.1, 4.2) has been replaced with the normatively referenced GB/T 1844.1 to adapt to my country's technical conditions;

---The description of the unit "thermoplastic plastic" in the naming has been changed to "thermoplastic resin" (see 4.1.1, Chapter 5) for accurate naming;

4.5.6.1), to adapt to my country's technological conditions;

---Change "Percentage content of bound vinyl chloride in copolymers/polymers" to "Mass percentage of bound vinyl chloride in copolymers/polymers" "Fraction" (see 4.2) clarifies the unit of content and eliminates ambiguity.

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 3402, "Plastics - Homopolymer and Copolymer Resins of Vinyl Chloride," aims to establish a naming and standardization framework applicable to homopolymer and copolymer resins of vinyl chloride.

The system and the criteria for sample preparation and performance testing are proposed to consist of two parts.

---Part 1: Nomenclature System and Standard Basis. The aim is to establish a standard for vinyl chloride thermoplastic resins.

Naming system.

---Part 2: Sample Preparation and Performance Testing. The purpose is to specify the sample preparation procedures for performance testing of vinyl chloride thermoplastic resin.

Polyvinyl chloride homopolymer and copolymer resin Part 1: Naming System and Standards

1 Scope

1.1

This document establishes a nomenclature system for vinyl chloride thermoplastic resins that can serve as a basis for standardization.

1.2

The types of vinyl chloride resins are based on the appropriate range of nominal properties, basic polymer parameters, polymerization process, and intended use.

A classification system is established to distinguish them from each other. The naming performance is as follows.

- a) Viscosity;
- b) Apparent density;
- c) Residue on a 63 μ m sieve;
- d) Plasticizer absorption at room temperature (for general-purpose resins and filled resins);
- e) Viscosity and rheological type of standard paste (for paste resins only).

1.3

This document applies to vinyl chloride homopolymer powder resins or resins composed of vinyl chloride and one or more other monomers (wherein the main component) Powdered resins, such as binary and terpolymer copolymers of vinyl chloride. The resins may contain small amounts of non-polymeric substances (such as emulsifiers or other polymers).

Dispersants, residual initiators, etc., and other substances added during the polymerization process.

1.4

This document does not provide engineering data, performance data, or processing conditions required for the specified resin to be used for a particular purpose and/or processing method.

Item data.

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.

GB/T 1844.1 Plastics symbols and abbreviations - Part 1: Basic polymers and their characteristic properties (GB/T 1844.1-2022, ISO 1043-1:2011, MOD) GB/T 3402.2 Plastics - Homopolymers and Copolymers of Vinyl Chloride - Part 2: Sample Preparation and Determination of Properties (GB/T 3402.2-2026, ISO 24024-2:2021, MOD)

3 Terms and Definitions

This document does not contain any terms or definitions that need to be defined.

4.1 General Rules

4.1.1

The nomenclature and standardization system for thermoplastic resins is based on the following standardized model.