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

GB/T 46316.1-2025

**Plastics - Hardeners and accelerators for epoxy resins - Part 1:
Designation**

塑料 环氧树脂用固化剂和促进剂 第1部分：命名

(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 46316, "Curing agents and accelerators for epoxy resins in plastics". GB/T 46316 has been published.

The following parts were included.

---Part 1: Naming.

This document is modified to adopt ISO 4597-1:2005 "Curing agents and accelerators for epoxy resins for plastics - Part 1: Nomenclature".

A new chapter on "Terms and Definitions" has been added.

This document has undergone the following structural adjustments compared to ISO 4597-1:2005.

---Chapter 4 corresponds to Chapter 3 of ISO 4597-1:2005;

---Chapter 5 corresponds to Chapter 4 of ISO 4597-1:2005;

---Table 1 of Chapter 5 of ISO 4597-1:2005 has been moved to Chapter 4;

Chapter 5 has been deleted.

The technical differences between this document and ISO 4597-1:2005, and the reasons therefor, are as follows.

---ISO 3219 (see Chapter 5) has been replaced with the normatively referenced GB/T 22314 to adapt to my country's technical conditions and increase operability.

Actual nature;

---Chapter 5 of ISO 4597-1:2005 has been deleted because its content is not directly related to the naming system.

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

With the rapid development of the epoxy resin industry, the types, grades, and applications of epoxy resin curing agents and accelerators are increasing globally.

There are many, but differences exist in the naming and abbreviations of curing agents and accelerators for epoxy resins among different countries or companies, leading to difficulties in technical exchange, trade, and...

Production difficulties. For example, with the same aliphatic polyamine curing agent, there are differences in whether it has been modified, whether it contains solvents or modifiers, its viscosity range, and so on.

Whether or not it contains additives or fillers may be indicated by different codes by different manufacturers, affecting supply chain efficiency. Epoxy resins use curing agents and...

Standardizing the naming of accelerators is an urgent need for the development of the industry.

GB/T 46316 aims to eliminate ambiguity and promote international technical documents, product labeling, and trade through a unified system of symbols and abbreviations.

Standardize easy-to-use documents. Simultaneously address naming differences between different countries and regions, promoting technological exchange and trade facilitation.

GB/T 46316 is a standard developed by the National Standardization Administration of China regarding the symbols and abbreviations for curing agents and accelerators used in epoxy resins.

The standard is divided into several parts, mainly involving the unified standardization of the naming, classification and terminology of curing agents and accelerators for epoxy resins.

Curing agents and accelerators for epoxy resins in plastics Part 1: Naming

1 Scope

This document describes the naming method for epoxy resin curing agents and accelerators.

The purpose of this naming method is to assign a set of numbers, called a "name," to each product category, providing information about the product in a coded form.

Specific information. basic chemical information, organic modifiers or solvents, viscosity, additives.

All products with similar characteristics and potentially the same purpose will have the same name; therefore, if the manufacturer has this name in its data sheet...

Listing the names in the table helps users make a selection.

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 22314 Determination of viscosity of epoxy resins for plastics (GB/T 22314-2008, ISO 3219:1993, MOD)

3 Terms and Definitions

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

4 Naming System

The naming convention for curing agents and accelerators consists of four groups of two-digit numbers, separated by spaces. The first three groups (group 1, group 2, and group 3) are...

The first group refers to the main characteristics, and the last group (character group 4) refers to additional information.

---Each two-digit group in the naming corresponds to a different attribute as shown in Table 1.

---The position of each two-digit group in the name (character group 1, character group 2, character group 3, etc.) indicates the attribute it points to.

---In naming, consecutive two-digit numbers represent categories (e.g., 01, 02, 03, etc.), corresponding to a certain component or a range of attribute values, such as...

As shown in Table 1.

Note 1: Not all attribute classification combinations can be implemented in practice. Note that, except in rare cases, the naming of materials and the combination of attributes in each row of Table 1 are not always feasible.

The names do not correspond.

Note 2: When determining a product's category, consider that character group 4 represents the average value of the product's manufacturing performance indicators, typically provided in the product data table. Given...

Unavoidable changes during the production process mean that when independently measuring the performance of a specific type of curing agent or accelerator classified as a particular grade, its value...

It may change.

---If the average performance is close to the specified lower limit, then proceed to the next level;

---If the average value is close to the upper limit, then it is the next level.

5 Naming of epoxy resin curing agents or accelerators

According to the naming system described in Chapter 4, products should be named using four sets of two-digit numbers separated by spaces.