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

GB/T 22027-2025

Replacing GB/T 22027-2008

**Thermoplastic elastomers - Nomenclature and abbreviated
terms**

(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 replaces GB/T 22027-2008 "Nomenclature and Abbreviations of Thermoplastic Elastomers". Compared with GB/T 22027-2008, except for...

Aside from structural adjustments and editorial changes, the main technical changes are as follows.

- a) The term "thermoplastic" has been removed (see 3.2 in the 2008 edition);
 - b) Added naming rules for TPO and TPS compounded with other polymers (see 4.3);
 - c) Added the types and abbreviations of soft segments in TPA and TPC (see 5.1, 5.2, 6.1 and 6.2);
 - d) The term thermoplastic polyolefin elastomer (TPO block copolymer) and its abbreviations have been added (see 5.3 and 6.3);
 - e) The abbreviations for thermoplastic polyolefin elastomer blends have been changed (see 6.3, 2008 edition of 6.3);
 - f) The abbreviation for TPS has been changed; TPS is now divided into fully hydrogenated "TPS-H" and partially hydrogenated or non-hydrogenated "TPS-N" (see [link to TPS product]).
- 6.4 (6.4 in the 2008 edition);
- g) The abbreviation for TPU has been changed, adding TPU-ALEE and TPU-ALCE (see 6.5, 2008 version 6.5);
 - h) The order of thermoplastic and rubber in the abbreviations TPV and TPZ has been changed (see 6.6 and 6.7, 2008 edition of 6.6).
- (and 6.7).

This document adopts ISO 18064:2022 "Nomenclature and abbreviations of thermoplastic elastomers".

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 Standardization of Rubber and Rubber Products (SAC/TC35).

Introduction

Thermoplastic elastomers combine many of the properties and characteristics of both vulcanized thermosetting rubbers and thermoplastic materials. Therefore, they are crucial for the rapidly developing polymer industry.

In the rubber and plastics industry, having a classification and naming system recognized by both is crucial. Current rubber naming and abbreviation standards...

Neither ISO 1629 nor the standard for plastic abbreviations (ISO 1043-1) meets this purpose. The system described in this document is designed to avoid any conflict of interest.

To avoid ambiguity or contradiction, when constructing abbreviations for thermoplastic elastomers, we should be compatible with existing terminology and adapt to future developments or expansions.

This document uses predefined abbreviations. The purpose is to prevent multiple abbreviations for a given thermoplastic elastomer term.

Abbreviations are used to prevent multiple interpretations of a given abbreviation. Therefore, this document makes reasonable use of ISO 1043-1 and...

Terms and symbols listed in ISO 1629.

Nomenclature and abbreviations of thermoplastic elastomers

1 Scope

This document establishes a nomenclature system for thermoplastic elastomers based on the chemical composition of polymers and related polymers, and specifies the nomenclature used for...

This document establishes symbols and abbreviations for identifying thermoplastic elastomers in industry, commerce, and government. The naming system established in this document is not consistent with existing product naming conventions.

The name and trademark do not conflict, but rather complement each other.

This document applies to the naming of thermoplastic elastomers.

Note 1: When the name of a thermoplastic elastomer is used in technical documents and literature, the abbreviation of the elastomer named in this document is placed after the name.

Note 2: Appendix A provides the abbreviations for thermoplastic elastomers that have been used in material standards, technical bulletins, textbooks, patents and trade documents.

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.

ISO 1043-1 Plastics symbols and abbreviations - Part 1: Basic polymers and their

characteristic properties Note. GB/T 1844.1-2022 Plastics symbols and abbreviations - Part 1: Basic polymers and their characteristic properties (ISO 1043-1:2011, MOD) ISO 1629 Nomenclature for Rubber and Latex Note. GB/T 5576-2025 Nomenclature of Rubber and Latex (ISO/DIS1629.2025, MOD)

3 Terms and Definitions

The following terms and definitions apply to this document.

Polymers or polymer blends that exhibit properties similar to vulcanized rubber at their service temperature, while also functioning like thermoplastics at high temperatures.

The next step involves further processing and reprocessing.

Note: TPE is an elastomer specified in ISO 1382 and ISO 472. Elastomers recover to near their original state and dimensions after being stretched.

4 Naming System

4.1

The prefix TP is an abbreviation used to represent thermoplastic elastomers, and should be followed by a word representing each thermoplastic elastomer category.

Mother, see Chapter 5 for details.

4.2

The abbreviation for each thermoplastic elastomer should be followed by a hyphen and a combination of symbols describing the specific composition of that category, as detailed in section [section number missing].

Chapter 6.

4.3

If TPO and TPS are compounded with other polymers, add "-M" after the letter describing the main polymer.