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

GB/T 1844.1-2022

**Plastics-Symbols and abbreviated terms-Part 1:Basic polymers
and their special characteristics**

塑料 符号和缩略语 第1部分：基础聚合物及其特征性能
(English Translation)

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Foreword

This document was drafted in accordance with the rules given in GB/T 1.1-2020 "Directives for standardization - Part 1: Rules for the structure and drafting of standardizing documents".

This document is Part 1 of GB/T 1844 "Plastics - Symbols and abbreviated terms". The following parts of GB/T 1844 have been issued.

- Part 1: Basic polymers and their special characteristics;
- Part 2: Fillers and reinforcing materials;
- Part 3: Plasticizers;
- Part 4: Tables of hardness values.

This document replaces GB/T 1844.1-2008 "Plastics - Symbols and abbreviated terms - Part 1: Basic polymers and their special characteristics". Compared with GB/T 1844.1-2008, in addition to the structural adjustments and editorial modifications, the main technical changes in this document are as follows.

- Add abbreviations HBV, PBS, PBSA, PCO, PES, PHA, PHB, PLA, PS-S, PS-ST (see Clause 5 of this Edition);
- Add symbols A (adipic acid) and ST (syndiotactic) indicating characteristic properties. Delete the symbols E (elastomer) and H (homogeneous) indicating characteristic properties (see Clause 6 of this Edition; Clause 6 of Edition 2008);
- Add symbols for recycled plastics (see Clause 7 of this Edition).

The modification of this document uses ISO 1043-1:2011 "Plastics - Symbols and abbreviated terms - Part 1: Basic polymers and their special characteristics".

The technical differences between this document and ISO 1043-1:2011 and their reasons are as follows.

- In Clause 1, add the content of "applicable limits" to comply with the provisions of GB/T 1.1-2020;

- Use normative reference GB/T 2035 to replace ISO 472 (see Clause 3) to adapt to the technical conditions in China.

The following editorial changes have been made to this document.

- Incorporate the amendments of ISO 1043-1:2011/AMD 1:2016. The outer margins of the clauses covered are marked with vertical double lines (||);

4.1 Abbreviated terms for homopolymers, copolymers and natural polymers are given

in Clause 5, symbols for special characteristics are given in Clause 6, the symbol for plastics recycled is given in Clause 7, and examples of the use of symbols are given in Clause 8.

4.2 Additional symbols and guidelines for their use are provided to distinguish the essential molecular characteristics of a given general plastic material. If they are difficult to distinguish, the use of such symbols describing performance shall be avoided to avoid confusion.

4.3 The abbreviated terms are primarily intended to be a convenient shorthand for chemical names in publications and other written matter. The abbreviated terms are also useful for indicating the type of basic polymer in materials and products, such as ABS moulding material, PA film, PE sheeting and PVC pipe.

4.4 Only capital letters shall be used for symbols and abbreviated terms.

4.5 When an abbreviation appears for the first time in the text, the corresponding term

shall be stated in full, followed by the corresponding abbreviation in parentheses.

4.6 When the prefix "poly" is used with the English names of multiple monomers, the International Union of Pure and Applied Chemistry (IUPAC) rules for traceable naming of polymers recommend the use of brackets.

NOTE: This document adopts this rule, but in ordinary use the parentheses are often omitted.

4.7 It is not the purpose of this document to systematize polymer abbreviations in a

formal manner. In the field of natural and synthetic polymers, terminology and formula names for scientific literature are carefully developed by the IUPAC Macromolecular Nomenclature Committee. In general, abbreviations used in this document are generally

consistent with abbreviations published by the committee.

5 Abbreviated terms for homopolymers, copolymers and natural

polymers

The following list gives the preferred abbreviated terms for plastics materials, using the component symbols given in Annex B. For some established materials, the abbreviated terms are supplemented by symbols for special characteristics as defined in Clause 6.

Other abbreviations for certain polymers often occur and are listed after the material name for ease of reference.