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

GB/T 40006.13-2025

**Plastics - Recycled plastics - Part 13: Poly(phenylene ether)
(PPE) materials**

塑料 再生塑料 第13部分：聚苯醚（PPE）材料

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is Part 13 of GB/T 40006 Plastics - Recycled Plastics. GB/T 40006 has been published in the following parts.

- Part 1: General;
- Part 2: Polyethylene (PE) material;
- Part 3: Polypropylene (PP) material;
- Part 4: Polyolefin blends (MPO) materials;
- Part 5: Acrylonitrile butadiene styrene (ABS) materials;
- Part 6: Polystyrene (PS) and high-impact polystyrene (PS-I) materials;
- Part 7: Polycarbonate (PC) materials;
- Part 8: Polyamide (PA) materials;
- Part 9: Polyethylene terephthalate (PET) material;
- Part 10. Polybutylene terephthalate (PBT) material;
- Part 11. Polyvinyl chloride (PVC) materials;
- Part 12. Polymethyl methacrylate (PMMA) materials;
- Part 13. Polyphenylene ether (PPE) materials.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the 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

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Introduction

The plastics industry is an important pillar industry of the national economy. With the rapid development of China's plastics industry and the extensive use of plastic products, the demand for plastics has increased significantly.

Recycling and reuse is an important issue facing the industry. It is one of the ways to achieve sustainable development of plastics and also a way to solve the problem of "white pollution".

Environmental protection issues provide an effective way.

In order to meet the needs of the recycled plastics market and industry, improve the quality of recycled plastics products, and promote the healthy development of the recycled plastics industry, China has formulated The GB/T 40006 series of national standards for recycled plastics has been released. Currently, this series of national standards is divided into The first part of the General Rules stipulates the naming, terminology and odor level, restricted substance content, radioactivity and other general requirements of recycled plastics.

The rest of the parts are product standards. In addition to the common requirements of the general rules, the technology of recycled plastics of this material is specified according to the type of plastic. Require.

GB/T 40006 "Plastics - Recycled Plastics" is intended to consist of 13 parts.

- Part 1: General. The purpose is to unify the general requirements of this series of products and facilitate reference in other parts.

- Part 2: Polyethylene (PE) materials. The purpose is to establish product requirements

applicable to recycled PE materials to meet industry needs.

- Part 3: Polypropylene (PP) materials. The purpose is to establish product requirements applicable to recycled PP materials to meet industry needs.

- Part 4: Polyolefin blends (MPO) materials. The purpose is to establish product requirements for recycled MPO materials to meet Industry demand.

- Part 5: Acrylonitrile-butadiene-styrene (ABS) materials. The purpose is to establish product requirements for recycled ABS materials.

To meet the needs of the industry.

- Part 6: Polystyrene (PS) and impact polystyrene (PS-I) materials. The purpose is to establish the requirements for recycled PS and The product requirements of PS-I materials meet the needs of the industry.

- Part 7: Polycarbonate (PC) materials. The purpose is to establish product requirements for recycled PC materials to meet the industry need.

- Part 8: Polyamide (PA) materials. The purpose is to establish product requirements applicable to recycled PA materials to meet industry needs.

- Part 9: Polyethylene terephthalate (PET) materials. The purpose is to establish product requirements applicable to recycled PET materials.

To meet the needs of the industry.

- Part 10. Polybutylene terephthalate (PBT) materials. The purpose is to establish products suitable for recycled PBT materials Requirements, meet industry needs.

- Part 11. Polyvinyl chloride (PVC) materials. The purpose is to establish product requirements for recycled PVC materials to meet the industry need.

- Part 12. Polymethyl methacrylate (PMMA) materials. The purpose is to establish products suitable for recycled PMMA materials Requirements, meet industry needs.

- Part 13. Polyphenylene ether (PPE) materials. The purpose is to establish product requirements for recycled PPE materials to meet the industry need.

This document is Part 13 of GB/T 40006. This document specifies the characteristics of polyphenylene ether (PPE) materials.

When specifying these performance requirements, we have considered the standard requirements of virgin polyphenylene ether (PPE) materials and paid attention to Characteristics of recycled polyphenylene ether (PPE) materials. Plastic recycled plastic Part 13. Polyphenylene ether (PPE) materials

1 Scope

This document specifies the classification, nomenclature, and requirements for polyphenylene ether recycled plastics [PPE(REC)] and describes the test methods for PPE(REC).

The law stipulates inspection rules, marking and accompanying documents, packaging, transportation and storage.

This document applies to waste polyphenylene ether/high impact polystyrene alloy (PPE PS-I) plastics as raw materials, which are made through mechanical recycling Granular PPE (REC).

Note. The PPE (REC) currently circulating on the market is mainly polyphenylene ether/high impact polystyrene alloy (PPE PS-I).

This document does not apply to PPE (REC) derived from hazardous waste such as medical waste, pesticide packaging, and radioactive waste, nor does it apply to PPE containing Glass fiber PPE (REC) or blends of PPE and other plastics.

2 Normative references

GB/T 1033.1

GB/T 1040.2-2022

GB/T 1043.1

GB/T 1634.1

GB/T 1634.2

GB/T 1844.1

GB/T 2035

GB/T 2547

GB/T 2918

GB/T 3682.1

GB/T 6284

GB/T 8170

GB/T 9341

GB/T 9345.1

GB/T 17037.1

GB/T 30102