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

GB/T 40006.6-2021

**Plastics - Recycled plastics - Part 6: Polystyrene (PS) and
impact-resistant polystyrene (PS-I) materials**

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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 of Standardization Documents" Drafting. This document is Part 6 of GB/T 40006 "Plastic Recycled Plastics". GB/T 40006 has released the following parts.

- 1. General rules;
- 2. Polyethylene (PE) material;
- 3. Polypropylene (PP) material;
- 5. Acrylonitrile-butadiene-styrene (ABS) materials;
- 6. Polystyrene (PS) and impact-resistant polystyrene (PS-I) materials;
- 7. Polycarbonate (PC) material;
- 8. Polyamide (PA) materials;

9. Polyethylene terephthalate (PET) materials. Please note that some of the contents of this document may involve patents. The issuing agency of this document is not responsible for identifying patents. This document was proposed by the China Petroleum and Chemical Industry Federation. This document is under the jurisdiction of the National Plastics Standardization Technical Committee (SAC/TC15). Drafting organizations of this document. Shanghai Intech Industrial Co., Ltd., Zhonglan Chenguang Chemical Research and Design Institute Co., Ltd., Huitong New Materials Co., Ltd. Co., Ltd., Jiangxi Green Recycling Industry Co., Ltd., China Blue Chenguang Chengdu Inspection Technology Co., Ltd., China Petroleum and Chemical Industry Co., Ltd. Association, Chinese Academy of Environmental Sciences, Lianyungang Legend Flame Retardant Technology Co., Ltd., Zhejiang Yima New Materials Co., Ltd., People's Republic of China Dagang Customs, Shandong Dawn Polymer Materials Co., Ltd., Shandong Inco Environmental Renewable Resources Co., Ltd., Qingdao Sino-Singapore Huamei Plastics Co., Ltd., Guangzhou Institute of Quality Supervision and Inspection, Beijing Physical and Chemical Analysis and

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The plastics industry is an important pillar industry of the national economy. With the rapid development of my country's plastics industry and the large-scale use of plastic products, plastics Recycling and recycling is an important issue facing the industry and one of the ways for the sustainable development of plastics. At the same time, it is also a solution to "white pollution", etc. Environmental issues provide an effective way. "Recycled Plastics" series of national standards. According to the characteristics of plastic products, this series of standards is planned to be composed of 12 parts, of which the first part of the general rules The general requirements for the naming, terminology and odor level, restricted substance content, radioactivity, etc. of recycled plastics are set, and the rest of the standards are common except for the general rules. In addition to the requirements, the technical requirements for recycled plastics of this kind of material are specified according to the type of plastic. This series of standards is to be composed of the following 12 parts under the general title "Plastic Recycled Plastics".

- 1.General rules;
- 2.Polyethylene (PE) material;
- 3.Polypropylene (PP) material;

1 Scope

Part 6 of China's national standard series for recycled plastics, covering polystyrene and high impact polystyrene. It specifies the classification and naming, the requirements, the test methods and the inspection rules. Polystyrene is the material of disposable packaging, refrigerator liners, appliance parts and expanded foam, and its recycling problem is mostly geometric rather than chemical. The polymer itself reprocesses well; the difficulty is that most of it is thin, light and voluminous - a lorry load of expanded foam is nearly all air, so collection and transport cost more than the material is worth unless it is densified at source. Where the feedstock is dense parts rather than packaging, as it is with refrigerator liners and appliance housings, the economics work and the recycled grade is genuinely useful. The distinction between plain and impact-resistant grades matters because the second contains rubber, and mixing the two produces a material with neither one's properties.

2 Normative references

The content of the following documents constitutes an indispensable clause of this document through normative references in the text. Among them, dated quotations Only the version corresponding to the date is applicable to this document; for undated reference

documents, the latest version (including all amendments) is applicable to This document.

GB/T 1033.1 Determination of the density of plastic non-foam plastics Part

GB/T 1633-2000 Thermoplastics Determination of Vicat Softening Temperature (VST)

GB/T 2035 Plastic Terms and Definitions

GB/T 2547 Plastic sampling method

GB/T 2918 Standard environment for condition adjustment and testing of plastic samples

GB/T 3682.1 Plastic thermoplastic melt mass flow rate (MFR) and melt volume flow rate (MVR) measurement Part