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

GB/T 43084.2-2023

**Plastics - Fluoropolymer dispersions and moulding and
extrusion materials - Part 2: Preparation of test specimens and
determination of properties**

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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 2 of GB/T 43084 "Plastic Fluoropolymer Dispersions, Molding and Extrusion Materials". GB/T 43084 has been issued. The following parts have been published.

1. Nomenclature system and classification basis;

2. Sample preparation and performance determination. This document refers to ISO 20568-2:2017 "Plastic fluoropolymer dispersions, molding and extrusion materials Part

2. Sample preparation and Performance Measurement" was drafted, and the degree of consistency is non-equivalent. Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents. This document is proposed by China Petroleum and Chemical Industry Federation. This document is under the jurisdiction of the National Plastics Standardization Technical Committee (SAC/TC15). This document was drafted by: Shandong Huaxia Shenzhou New Materials Co., Ltd., Shanghai Huayi Sanaifu New Materials Co., Ltd., China Blue Morning Light Chengdu Detection Technology Co., Ltd., Zhejiang Huanlong New Material Technology Co., Ltd., Yangzhou Chenguan New Material Co., Ltd., Luxi Chemical Group Co., Ltd. Company, Zibo Metrology Technology Research Institute, Zhejiang Quzhou Jusu Chemical Co., Ltd., Shandong Dongyue Polymer Materials Co., Ltd., Guangdong Xihuwei Industrial Investment Co., Ltd., Liaocheng Fluor New Material Technology Co., Ltd., Lichang Technology (Ganzhou) Co., Ltd., Liaocheng University, Fujian Haide Fuxin Materials Co., Ltd., Huizhou Latu Photographic Equipment Co., Ltd., Jinhua Yonghe Fluorine Chemical Co., Ltd., Zhejiang Funuolin Chemical New Materials Co., Ltd. Company, Zhejiang Juhua Co., Ltd. Fluorine Polymer Factory, Qingdao Dagang Customs of the People's Republic of China, Qingdao Superstar Machinery Mold Co., Ltd., Qingdao Sino New Materials Co., Ltd.,

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Most of my country's existing standards related to fluoropolymer dispersions, molding and extrusion materials were released in 1997, and they are all product standards. However, there is a lack of nomenclature system and basic classification standards for fluoropolymers. Some of the normative reference documents have been revised and changed. To contain For the healthy development of the fluoropolymer industry, better promotion and application, and domestic and foreign trade and technical exchanges, there is an urgent need to integrate various existing standards among industry enterprises. industry-implemented naming method, form standardized naming, unify product naming, and formulate fluoropolymer dispersions, molding and National standard for nomenclature and classification of extrusion materials. After studying the national and industry standards for plastic-fluoropolymer dispersions, molding and extrusion materials at home and abroad, a comparative analysis was conducted. ISO 20568.2017, GB/T 43084 aims to standardize the naming, classification and performance determination of fluoropolymer dispersions, molding and extrusion materials and sample preparation, which is intended to consist of two parts.

1.Nomenclature system and classification basics. The aim is to introduce a complete nomenclature system for fluoropolymers.

2.Sample preparation and performance determination. The purpose is to establish a standardized set of standard methods for test preparation and performance measurement. The two parts complement each other to form a complete standard system of fluoropolymers. The issuance and implementation of this document can standardize the sample preparation and performance measurement of fluoropolymer dispersions, molding and extrusion materials to meet customer needs. requirements to better promote trade, exchanges and technical cooperation. Plastic fluoropolymer dispersions, molding and extrusion materials Part

1 Scope

GB/T 43084.2-2023 is Part 2 of the Chinese series on fluoropolymer dispersions and moulding and extrusion materials, and covers the preparation of test specimens and the determination of properties. Fluoropolymers cannot be tested like other plastics because most of them cannot be processed like other plastics: PTFE does not flow when molten, so a specimen has to be made by compression and sintering, and the result depends on the

pressure, the ramp and the sintering schedule as much as on the resin. Fixing the specimen preparation is therefore the substance of the standard. It sets the specimen preparation, the conditioning and test conditions, and the property determinations, with normative annexes on determining the standard relative density, the particle size and its distribution, and the viscosity of PTFE dispersions. It took effect on 1 April 2024.

This document specifies methods for specimen preparation and property determination of fluoropolymer dispersions, molded and extruded materials. This document applies to the determination of polytetrafluoroethylene (PTFE) and melt-processable fluoropolymers.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document.

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

3 Terms and definitions

The terms and definitions defined in GB/T 2035 and GB/T 43084.1-2023 apply to this document.

4 Sample preparation

Sample preparation shall be carried out in accordance with the relevant provisions of this document.