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

GB/T 37199.1-2021

**Plastics - Polybutene (PB) moulding and extrusion materials -
Part 1: Designation system and basis for specifications**

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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 1 of GB/T 37199 "Plastic Polybutene (PB) Molding and Extrusion Materials". GB/T 37199 has been released

The following parts.

---Part 1. Naming system and classification basis;

---Part 2. Sample preparation and performance measurement.

This document uses the redrafting method to amend and adopt ISO 21302-1:2019 "Plastic Polybutene-1 (PB-1) Molding and Extrusion Material No. 1

Part. Naming System and Classification Fundamentals.

There are technical differences between this document and ISO 21302-1:2019. The main technical differences and their reasons are as follows.

--- Modify the melt volume flow rate of the characteristic performance to the melt mass flow rate to suit my country's national conditions and usage habits (see

Chapter 1).

---Regarding normative reference documents, this document has made adjustments with technical differences to adapt to my country's technical conditions and adjustments.

The situation is collectively reflected in Chapter 2 "Normative Reference Documents", and the specific adjustments are as follows.

* Replace ISO 1043-1 (see 4.1, 4.2) with GB/T 1844.1, which is equivalent to the international standard.

---The test condition for measuring the mass flow rate of the melt "When the MVR measured by the test condition D is less than 0.1cm³/10min,

Change to F condition; when the MVR measured under test condition F is less than 0.1cm³/10min, change to G condition" and modify it to

"When the MFR measured under test condition D is less than 0.1g/10min, change to condition T; when the MFR measured under test condition T

When the value is less than 0.1g/10min, replace it with F condition; when the MFR value measured by test condition F is less than 0.1g/10min, replace

It is the G condition. ", so that the standard requirements meet the requirements of use (see 4.5.2).

This document has also made the following editorial changes.

---The standard name was changed to "Plastic Polybutene (PB) Molding and Extrusion Materials Part 1.Naming System and Classification Basis";

--- In Chapter 1, "The mass content of other 1-olefin monomers is less than 50g/kg and the mass content of non-olefin monomers with functional groups is not

"Butene copolymer greater than 3g/kg" is revised to "other 1-olefin monomers with a mass content of less than 50% and non-olefins with functional groups

Butene copolymer with a monomer mass content of not more than 3%";

---In Chapter 1, replace ISO 21302-2 referenced by ISO 21302-1.2019 with GB/T 37199.2, which is modified and adopted international standards,

And delete ISO 21302-2 from the list in Chapter 2, and add GB/T 37199.2 in the references.

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. Beijing Yanshan Petrochemical High-tech Technology Co., Ltd., Shandong Dongfang Hongye Chemical Co., Ltd., Shantou Boshi Petrochemical Co., Ltd., Petrochemical Research Institute of China National Petroleum Corporation.

Introduction

This series of standards is the basic standard for the classification and naming of polybutene resins, sample preparation and performance measurement, and provides standards for polybutene products

?Support. This standard modification adopts the ISO series of standards. Due to the changes in the ISO standard's guidelines, the naming system has been adjusted, and the

The test method standards closely related to performance measurement have been revised, and there are technical differences, so this series of standards are revised.

This series of standards is composed of two parts under the general title "Plastic Polybutene (PB) Molding and Extrusion Materials".

---Part 1.Naming system and classification basis;

---Part 2.Sample preparation and performance measurement.

This document is the first part of a series of standards, based on ISO 21302-1:2019, based on polybutene (PB) molding and extrusion materials

Features, use the specified characteristic performance values and recommended uses and/or processing methods, important properties, additives, colorants, fillers and reinforcing materials

Etc., distinguished different types of polybutene molding and extrusion materials.

Plastic polybutene (PB) molding and extrusion materials

Part 1.Naming system and classification basis

1 Scope

This document specifies a naming system for polybutene (PB) molding and extrusion materials, which can be used as a basis for classification.

Note. In this document, polybutene (PB) is the abbreviation of polybutene-1 (PB-1).

Different types of polybutene thermoplastic materials use the following specified characteristic property values, melt mass flow rate, and recommended uses

It can be distinguished from a classification system based on processing methods, important properties, additives, colorants, fillers and reinforcing materials.

This document applies to all butene homopolymers and other 1-olefin monomers with a mass content of less than 50% and non-olefin monomers with functional groups

Butene copolymer with a mass content of not more than 3%.

This document is applicable to materials that are powdered, granular or crushed, unmodified or modified by colorants, additives, fillers, etc.

This document does not mean that materials with the same name must have the same properties. This document does not provide a description of the special purpose of the material and

(Or) Engineering data, performance data or processing condition data required by the processing method. If necessary, according to the test specified in GB/T 37199.2

The method determines these additional requirements.

In order to illustrate the special use of thermoplastic materials or to ensure the reproducibility of processing, additional requirements can be given in character group 5.

(See 4.1).

2 Normative references

The contents of the following documents constitute the indispensable clauses of this document through normative references in the text. Among them, dated quotations

Only the version corresponding to that date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

This document.

GB/T 1844.1 Plastic symbols and abbreviations Part 1. Basic polymers and their characteristic properties (GB/T 1844.1-2018,

ISO 1043-1:2001, IDT)

3 Terms and definitions

There are no terms and definitions that need to be defined in this document.

Note. ISO and IEC maintain a terminology database for standardization, the address is as follows.

4.1 General

The naming and classification system of polybutene is based on the following standard model.