



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

GB/T 36374.1-2018

**Plastics -- Sulfone polymer moulding and extrusion materials --
Part 1: Designation system and basis for specifications**

Issued on: June 7, 2018

Implemented on: January 1, 2019

Issued by: SAMR; SAC

Table of Contents

Foreword

1 Scope

2 Normative references

3 naming and classification system

3.1 Overview

3.2 character set 1

3.3 character set 2

3.4 character set 3

145 <=150

255 >250

40 >40

015 <=.2000

160 >16000

60 <= 65

90 >165

3.5 character set 4

3.6 character set 5

4 Name example

4.1 Naming

4.2 Naming into specifications

Foreword

GB/T 36374 "Plastic sulfone polymer molding and extrusion materials" is divided into two parts.

--- Part 1. The naming system and classification basis;

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

This part is the first part of GB/T 36374.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This section uses the translation method equivalent to ISO 25137-1:2009 "Plastic sulfone polymer molding and extrusion materials Part 1. Name

System and Classification Foundation.

This part was proposed by the China Petroleum and Chemical Industry Federation.

This part is under the jurisdiction of the National Plastics Standardization Technical Committee (SAC/TC15).

This section drafted by. Blonde Technology Co., Ltd., Zhonglan Chenguang Chemical Research and Design Institute Co., Ltd., Shanghai Blonde Technology Development Co., Ltd., South China University of Technology.

1 Scope

This part of GB/T 36374 specifies sulfone polymers including polysulfone (PSU), polyethersulfone (PESU) and polyphenylene sulfone (PPSU).

A naming system for molded and extruded materials that can be used as a basis for classification.

The type of sulfone polymer material is graded according to the following characteristic properties, and based on composition blending, recommended use, and/or processing

Information on methods, important properties and additives, colorants, fillers and reinforcing materials are classified according to the classification method.

- a) load deformation temperature;
- b) melt mass flow rate;
- c) notched impact strength of simply supported beams;
- d) tensile modulus of elasticity;
- e) Tensile yield stress.

This section applies to all sulfone polymers containing etheroxy groups, which are essential components of such polymers and are also suitable for inclusion in associations.

A sulfone polymer of benzene structure.

This section applies to powders, granules or granules of general-purpose materials that have not been modified or modified with colorants, additives, fillers, etc.

This section does not mean that the same material must have the same performance. This section does not provide for the specific use of materials and /

Or data on engineering data, performance data, or processing conditions required for processing methods.

These additional properties can be determined as required by the test method specified in

GB/T 36374.2.

Additional requirements may be specified in Character Group 5 (see 3.1) in order to specify the specific use of a thermoplastic material or to ensure process reproducibility.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

ISO 1043-1 Plastic symbols and abbreviations - Part 1. Basic polymers and their characteristic properties (Plastics-Symbols and

abbreviated terms - Part 1. Basic polymers and their special characteristics)

Plastics and sulphuric acid polymers -- Part 2. Preparation and performance determination of samples (Plastics-

Sulfone polymer moulding and extrusion materials - Part

2. Preparation of test specimens and determi-

nation of properties)

3.1 Overview

The thermoplastic naming and classification system is based on the following standard modes.

name

Description group

(optional)

Feature project group

National standard

Quasi-number group

Single item group

Character group 1 character group 2 character group 3 character group 4 character group 5

The naming contains a description group and a feature item group labeled "thermoplastic", where the feature item group consists of a national standard number group and a single

Item group composition. For explicit naming, the single component is a 5-character group

with the following information.

Character set 1. According to ISO 1043-1, specified by the abbreviated symbols, ie PSU, PESU or PPSU, and the composition of the polymer

Sulfone polymer code (see ISO 1043-1, 1.3 and 3.2).

Character Set 2. Position 1. Recommended for specific applications and/or processing methods (see 3.3 of ISO 1043-1).

Locations 2 through 8. Important properties, additives and additional information (see 3.3 of ISO 1043-1).

Character set 3. Specify feature performance (see 3.4 of ISO 1043-1).

Character set 4. filler or reinforcement and its nominal content (see ISO 1043-1, 3.5).

Character set 5. For the purpose of classification, the fifth character set containing additional information can be added (see 3.6 of ISO 1043-1).

The first character of character group 1 should be a hyphen.

Comma separated by character groups.

If a character group is not used, it should be separated by a double comma (,,).

3.2 character set 1

In this character group, after the hyphen, the sulfone polymer material is represented by the abbreviation code PSU, PESU or PPSU according to ISO 1043-1.

The chemical composition of the materials is shown in Table 1.

Table 1 Abbreviation codes for the composition of the main component of the polymer (>=75% by mass) in the character group 1

Chemical structure of the abbreviation code repeat unit

PSU

(polysulfone)

Oxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenylene
(dimethylmethylene)-1,4-phenylene

PESU

(polyethersulfone)

Oxy-1,4-phenylenesulfonyl-1,4-phenylene

PPSU