

ICS 83.140.01

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

GB/T 39714.2-2020

**Plastics - Polytetrafluoroethylene(PTFE)semi-finished products
- Part 2: Preparation of test specimens and determination of
properties**

Issued on: December 14, 2020

Implemented on: July 1, 2021

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

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Foreword

GB/T 39714 "plastic polytetrafluoroethylene (PTFE) semi-finished products" is divided into two parts:

---Part 1: Requirements and naming;

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

This part is Part 2 of GB/T 39714:

This section was drafted in accordance with the rules given in GB/T 1:1-2009:

This part adopts the redrafting method to amend and adopt ISO 13000-2:2005 "Plastic polytetrafluoroethylene (PTFE) semi-finished products Part 2

Sub: Sample Preparation and Performance Measurement:

Compared with ISO 13000-2:2005, this part has structural differences: The specific adjustments are as follows:

--- Added normative Appendix B (see Appendix B):

Compared with ISO 13000-2:2005, there are technical differences in this part: The terms of these differences have been passed on the outer margins:

The vertical single line (|) is marked: The main technical differences and their reasons are as follows:

---Regarding normative reference documents, this section 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 1183 with GB/T 1033:1 equivalent to adopting international standards and GB/T 1033:2 modified to adopting international standards

(See 6:4);

* Replace ISO 527-2 with GB/T 1040:2, which is equivalent to the international standard

(see 6:3:2);

* Replace ISO 527-3 with GB/T 1040:3, which is equivalent to the international standard (see 6:3:2);

* Replace IEC 60243-1 (see 6:8:1) with GB/T 1408:1 equivalent to the international standard;

* Replace IEC 60243-2 with GB/T 1408:2 equivalent to the international standard (see 6:8:1);

* Replace ISO 472 with GB/T 2035 which is equivalent to the international standard (see Chapter 3);

* Replace ISO 868 with GB/T 2411 which is equivalent to the international standard (see 6:9);

* Replace ISO 2039-1 with GB/T 3398:1 which is equivalent to the international standard (see 6:9);

* Replace ISO 1923 with GB/T 6342 equivalent to the international standard (see 6:2);

* Replace ISO 13000-1 (see Chapter 3) with GB/T 39714:1 modified to adopt international standards;

* Replace ISO 4599 with ISO 22088-3 (see 6:12);

* Replace ISO 4600 with ISO 22088-4 (see 6:12);

* Deleted ASTM D621-64 (see Chapter 2 of ISO 13000-2:2005);

--- Replace ISO 12086-1 with ISO 20568-1 (see Appendix A);

--- Replace ISO 12086-2 with ISO 20568-2 (see Appendix A);

--- Added the reference standard content in Appendix A (see Appendix A [1]~[4]):

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):

Drafting organizations of this section: Shanghai Institute of Materials, Shanghai Plastics Research Institute Co., Ltd., Zhejiang Jiari Fluoroplastic Co., Ltd., Shanghai Shang

Fluorine Materials Co., Ltd., Zhonglan Chenguang Chengdu Inspection Technology Co., Ltd., Liaocheng Fluor New Material Technology Co., Ltd., Liaocheng University:

1 Scope

This part of GB/T 39714 specifies the method for preparation and performance

determination of semi-finished polytetrafluoroethylene samples:

This section applies to sample preparation and performance determination of semi-finished PTFE products:

2 Normative references

The following documents are indispensable for the application of this document: For dated reference documents, only the dated version applies to this article

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

GB/T 1033:1-2008 Determination of the density of plastic non-foam plastics Part 1: Immersion method, liquid pycnometer method and titration method

(GB/T 1033:1-2008, ISO 1183-1:2004, IDT)

GB/T 1033:2-2010 Determination of the density of plastic non-foam plastics Part 2: Density gradient column method (GB/T 1033:2-

2010, ISO 1183-2:2004, MOD)

GB/T 1040:2 Determination of tensile properties of plastics Part 2: Test conditions for molding and extrusion plastics (GB/T 1040:2-

2006, ISO 527-2:1993, IDT)

GB/T 1040:3 Determination of tensile properties of plastics Part 3: Test conditions for films and sheets (GB/T 1040:3-2006,

ISO 527-3:1995, IDT)

GB/T 1408:1-2016 Insulating material electric strength test method Part 1: Test under power frequency (GB/T 1408:1-

2016, IEC 60243-1:2013, IDT)

GB/T 1408:2 Insulating material electric strength test method Part 2: Additional requirements for applied DC voltage test

(GB/T 1408:2-2016, IEC 60243-2:2013, IDT)

GB/T 2035 Plastic Terms and Definitions (GB/T 2035-2008, ISO 472:1999, IDT)

GB/T 2411 Plastics and hard rubber use a durometer to determine the indentation hardness (Shore hardness) (GB/T 2411-2008, ISO 868:

2003, IDT)

GB/T 3398:1 Plastic Hardness Determination Part 1: Ball Indentation Method (GB/T

3398:1-2008, ISO 2039-1:2001,

IDT)

GB/T 6342 Determination of linear dimensions of foam plastics and rubber (GB/T 6342-1996, ISO 1923:1981, IDT)

GB/T 39714:1 Plastic polytetrafluoroethylene (PTFE) semi-finished products Part 1: Requirements and naming (GB/T 39714:1-

2020, ISO 13000-1:2005, MOD)

ISO 3611 Product Geometric Technical Specification Dimensional Measuring Equipment: Micrometer Design and Metrological Characteristics for External Measurement

(Geometrical products specifications (GPS)-Dimensional measuring equipment: Micrometers for ex-

ternal measurements-Design and metrological characteristics)

ISO 22088-3 Plastics environmental stress cracking resistance (ESC) performance determination part 3: bending strip method (Plastics-Determi-

nation of resistance to environmental stress cracking (ESC)-Part 3: Bent strip method)