

ICS 59.080.30

CCS W 04



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

GB/T 47769.1-2026

**Textiles - Microplastics from textile sources - Part 1:
Determination of collected material mass from fabrics during
washing**

纺织品 来源于纺织品的微塑料 第1部分：织物经水洗后收集物质量的测定

(English Translation)

Issued on: July 2, 2026

Implemented on: February 1, 2027

Issued by: State Administration for Market Regulation

Table of Contents

Foreword
Introduction
1 Scope
2 Normative references
3 Terms and Definitions
4 Principles
5 Reagents
6 Instruments and Materials

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 1 of GB/T 47769 "Microplastics Derived from Textiles". GB/T 47769 has been published.

The following section.

---Part 1: Determination of the mass of collected fabrics after washing;

---Part 3: Determination of the mass of finished products collected after household washing.

This document is modified to adopt ISO 4484-1:2023 "Textiles and textile products - Microplastics from textiles - Part 1: Washing".

Material loss of the fabric during the process.

Compared with ISO 4484-1:2023, this document has undergone the following structural adjustments.

--- Annexes B and C of ISO 4484-1:2023 have been deleted.

The technical differences between this document and ISO 4484-1:2023, and the reasons therefor, are as follows.

---The main text of the "Scope" section has been changed to "Notes" to facilitate the application of the standard (see Chapter 1);

---The normative reference ISO 3696:1987 has been replaced with GB/T 6682 for ease of

understanding (see Chapter 5);

---The requirements for test gloves and test suits have been clarified, improving the consistency of test procedures (see 6.1, 6.2);

---The normative reference ISO 4915 has been replaced with GB/T 24118 for ease of understanding (see 6.3, 7.3);

---The third paragraph of section 6.11 has been changed to "Note" to adapt to my country's technical conditions (see 6.11);

---FZ/T 80003 replaced the normative reference ISO 4916, and added requirements for sampling size of heavy fabrics, improving the testing standards.

Operational consistency (see 7.3);

---The requirement to "cool to room temperature" has been added, improving the consistency of experimental procedures (see 8.2, 8.6);

---The rounding decimal places of the experimental results were clarified, improving the consistency of experimental procedures (see Chapter 9);

---Added j) information on conducting blank experiments to make the report more complete (see Chapter 10).

The following editorial changes have been made to this document.

---The standard title has been changed to "Microplastics from textiles - Part 1: Mass of materials collected after washing of fabrics".

Measurement;

---The "Notes" in the "Scope" chapter have been deleted;

---The URLs for the ISO and IEC terminology databases have been removed;

---Notes have been removed from 6.2 and 6.12;

---Change index number "2" in Figure 1 of section 6.4 to "a" to maintain consistency with the wording in GB/T 24118;

---Added a note regarding conducting blank experiments;

---A note has been added to Chapter 9 explaining how to handle situations where the number of samples needs to be increased; the note concerning statistical data has been removed.

---The last sentence of Chapter 6 has been moved to version 8.1;

---Informative Appendix B "Statistical Data" and Appendix C "Topics for Further Research - 550mL Container" have been deleted.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China National Textile and Apparel Council.

This document is under the jurisdiction of the National Technical Committee on Standardization of Textiles (SAC/TC209).

Introduction

GB/T 47769, "Microplastics Derived from Textiles," is a standard method for determining microplastics derived from textiles. It is intended to be implemented by...

The lower part is composed of.

---Part 1: Determination of the mass of collected fabrics after washing. The aim is to provide a method for determining the mass of collected fabrics after washing.

The material quality is determined by methods for measuring microplastics derived from textiles.

---Part 2: Qualitative and Quantitative Evaluation of Microplastics. The aim is to provide a qualitative and quantitative evaluation of microplastics derived from textiles.

method.

A method for determining the mass of collected samples after washing to measure microplastics derived from textiles.

Microplastics from textiles Part 1: Determination of the mass of fabrics collected after washing

1 Scope

This document describes a method for determining the mass of a fabric collected after a washing process.

This document applies to all types of fabrics.

Note: There is no correlation between the quality of collected materials during household and commercial washing processes.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 6682 Specifications and test methods for water used in analytical laboratories (GB/T 6682-2008, ISO 3696:1987, MOD) GB/T 24118 Classification and Terminology of Textile Stitch Types (GB/T 24118-2009, ISO 4915:1991, IDT) FZ/T 80003 Classification and Terminology of Textiles and Clothing Sewing Types

3 Terms and Definitions

This document does not contain any terms or definitions that need to be defined.

4 Principles

The sample was subjected to accelerated washing under appropriate temperature, time, and mechanical conditions. The washing solution was then vacuum filtered and weighed.

The mass of the collected material was determined by a method, and the ratio of the mass of the collected material to the mass of the sample was calculated.

5 Reagents

Water. Distilled water or Grade III water that meets the requirements of GB/T 6682.

6 Instruments and Materials

6.1

Test gloves. Powder-free, made of rubber. Wear them throughout the test to prevent contamination.

6.2

Test garment. Should not shed lint. Wear it throughout the test to prevent contamination.

6.3

Cutting tools. such as scissors or electric cutter.

6.4

Sewing machine. single needle, lockstitch, capable of sewing the 301 stitch type as specified in GB/T 24118, see Figure 1 for a schematic diagram.