
Tekstilije in tekstilni izdelki - Mikroplastika iz tekstilnih virov - 3. del: Merjenje mase zbranega materiala, sproščenega iz končnih tekstilnih izdelkov pri metodi pranja v gospodinjstvu (ISO 4484-3:2023)

Textiles and textile products - Microplastics from textile sources - Part 3: Measurement of collected material mass released from textile end products by domestic washing method (ISO 4484-3:2023)

Textilien und textile Erzeugnisse - Mikroplastik aus textilen Quellen - Teil 3: Messung der gesammelten Materialmasse, die von textilen Fertigerzeugnissen durch Haushaltswäsche freigesetzt wird (ISO 4484-3:2023)

Textiles et produits textiles - Microplastiques d'origines textiles - Partie 3: Mesurage de la masse de matériaux collectés libérés par les produits finis textiles par la méthode de lavage domestique (ISO 4484-3:2023)

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Textiles and textile products - Microplastics from textile sources - Part 3: Measurement of collected material mass released from textile end products by domestic washing method (ISO 4484-3:2023)

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European foreword

This document (EN ISO 4484-3:2023) has been prepared by Technical Committee ISO/TC 38 "Textiles" in collaboration with Technical Committee CEN/TC 248 "Textiles and textile products" the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2023, and conflicting national standards shall be withdrawn at the latest by November 2023.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

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Textiles and textile products — Microplastics from textile sources — Part 3: Measurement of collected material mass released from textile end products by domestic washing method

*Textiles et produits textiles — Microplastiques d'origines textiles —
Partie 3: Mesurage de la masse de matériaux collectés libérés par les
produits finis textiles par la méthode de lavage domestique*

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 38, *Textiles*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 248, *Textiles and textile products*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

A list of all parts in the ISO 4484 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Daily washing of textile end products generates fibre fragments which are discharged from washing machine. The purpose of this test method is to collect materials including fibre fragments which are discharged from the domestic washing machine through the washing process.

Although there are many types of washing machines used at home, ISO 6330 has been developed for the domestic washing test method, which specifies the domestic washing machines and test conditions. This document utilizes one of the standard washing machines in ISO 6330.

In addition, a care label is attached to textile end products in many countries of the world and this care label specifies washing conditions to use in this document.

Due to the complicated internal structure of washing machines, the cleaning process of the machine is very important to avoid contamination. This document proposes the checking method and the requirements of the washing machine to be used in this document.

The identification and quantification of components contained in the collected materials through the washing process are determined by applying ISO 4484-2.

The information gathered from this document can be utilized by the textile industry for the development of textile end products to reduce or minimize shedding materials from textile end products through the washing process.

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Textiles and textile products — Microplastics from textile sources —

Part 3: Measurement of collected material mass released from textile end products by domestic washing method

1 Scope

This document specifies a method for measuring the collected material mass released from the outlet hose of a standard washing machine, described in ISO 6330, through the washing process.

NOTE The washing condition of textile end products is indicated by the care labelling according to ISO 3758.

This document is applicable to textile end products (including consumer textile products, such as clothing made of fleece, shirts, trousers, blouse, etc.) and home textile end products (such as, blankets, rugs, curtains, etc.) which are composed of all fibres such as natural fibres, and man-made fibres, including mixture of the fibres that can be washed in a domestic washing machine.

This document is not applicable to fabrics and cut textile products. It does not cover the test for washing machines and detergents as well.

2 Normative references

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The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 139, *Textiles — Standard atmospheres for conditioning and testing*

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

ISO 3758, *Textiles — Care labelling code using symbols*

ISO 6330:2021, *Textiles — Domestic washing and drying procedures for textile testing*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

collected material

material collected by the filter attached at the outlet hose of a washing machine through the washing process, which include fibre fragments and non-water-soluble materials