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Plastics - Determination of pourability (ISO 6186:2023)



## EESTI STANDARDI EESSÕNA

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EUROPEAN STANDARD

EN ISO 6186

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

## Plastics - Determination of pourability (ISO 6186:2023)

Plastiques - Détermination de l'aptitude à l'écoulement  
(ISO 6186:2023)

Kunststoffe - Bestimmung der Rieselfähigkeit (ISO  
6186:2023)

This European Standard was approved by CEN on 3 June 2023.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

## European foreword

This document (EN ISO 6186:2023) has been prepared by Technical Committee ISO/TC 61 "Plastics" in collaboration with Technical Committee CEN/TC 249 "Plastics" the secretariat of which is held by SIS.

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of an identical text or by endorsement, at the latest by January 2024, and conflicting national standards shall be withdrawn at the latest by January 2024.

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.

This document supersedes EN ISO 6186:1998.

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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## Endorsement notice

The text of ISO 6186:2023 has been approved by CEN as EN ISO 6186:2023 without any modification.

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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](http://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](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 5, *Physical-chemical properties*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 249, *Plastics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 6186:1998), which has been technically revised.

The main changes compared to the previous edition are as follows:

- [Clause 2](#) and [Clause 3](#) have been updated;
- [Clause 5](#) "Apparatus" has been technically revised;
- former Clause 9 "Precision" has been deleted and subsequent clause has been renumbered;
- former Clause 10 "Test report" has been renumbered as the new [Clause 9](#), and has been rearranged and revised.

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](http://www.iso.org/members.html).

# Plastics — Determination of pourability

## 1 Scope

This document specifies two methods, A and B, for determining the pourability of plastics in powdered and granular form, by measuring the flow time through a funnel under specified conditions.

From method A, information concerning the processability can be derived, whilst method B is especially designed for process control during manufacture.

The methods specified are not necessarily applicable to all plastics in powdered and granular form.

## 2 Normative references

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 291, *Plastics — Standard atmospheres for conditioning and testing*

ISO 21920-2, *Geometrical product specifications (GPS) — Surface texture: Profile — Part 2: Terms, definitions and surface texture parameters*

## 3 Terms and definitions

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

ISO and IEC maintain terminology 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

#### flow time

time taken for a defined mass or volume of test material to flow through a funnel of specified dimensions under specified conditions

Note 1 to entry: It is expressed in seconds (s).

## 4 Principle

The time taken for a defined mass or volume of the test material to flow through a funnel of specified dimensions is measured under specified conditions.

## 5 Apparatus

**5.1 Funnel**, of the shape and dimensions shown in [Figure 1](#) and in [Table 1](#). Simple test funnels or test funnels with exchangeable nozzles may be used. The funnel shall be made of metal, for example stainless steel, and have a polished interior surface. The inside surface roughness of the funnel shall meet the requirements of roughness profile Ra 0,8 where Ra is specified in ISO 21920-2. The funnel shall be fitted with a device for closing the outlet (for example a metal plate). The funnel shall be earthed to discharge electrostatic charges.