

Fibre-reinforced plastics - Moulding compounds and preregs - Determination of mass per unit area and fibre mass per unit area (ISO 10352:2020)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

**Fibre-reinforced plastics - Moulding compounds and
prepregs - Determination of mass per unit area and fibre
mass per unit area (ISO 10352:2020)**

Plastiques renforcés de fibres - Mélanges à mouler et
préimprégnés - Détermination de la masse surfacique
et de la masse des fibres par unité de surface (ISO
10352:2020)

Faserverstärkte Kunststoffe - Formmassen und
Prepregs - Bestimmung der flächenbezogenen Masse
und flächenbezogenen Fasermasse (ISO 10352:2020)

This European Standard was approved by CEN on 28 August 2020.

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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 10352:2020) 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 NBN.

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of an identical text or by endorsement, at the latest by March 2021, and conflicting national standards shall be withdrawn at the latest by March 2021.

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 10352:2010.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 10352:2020 has been approved by CEN as EN ISO 10352:2020 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 documents 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 61, *Plastics*, Subcommittee SC 13, *Composites and reinforcement fibres*, 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 fourth edition cancels and replaces the third edition (ISO 10352:2010), which has been technically revised.

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

- determination of fibre mass per unit area by Method A, Method B, Method C, Method D and Method E have been added.

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.

Fibre-reinforced plastics — Moulding compounds and prepregs — Determination of mass per unit area and fibre mass per unit area

1 Scope

This document specifies a method for the determination of the mass per unit area. It also specifies five methods (Method A to Method E) for the determination of the fibre mass per unit area of moulding compounds and prepregs. The five methods are as follows:

- Method A: Extraction by Soxhlet;
- Method B: Extraction by immersion in solvent in a beaker;
- Method C: Decomposition by loss ignition;
- Method D: Extraction by wet combustion;
- Method E: Method by calculation.

This document is applicable to the following types of materials:

- moulding compound and preimpregnated unidirectional sheet, tape, fabric and mats;
- prepregs in which any type of reinforcement (aramid, carbon, glass, etc.) and any type of matrix (thermosetting or thermoplastic) has been used.

Typically, reinforcement fibres are coated with sizing or finishes. These normally dissolve with the resin and are, therefore, included in the resin content.

This document is not applicable to the following types of prepregs:

- those containing reinforcements which are soluble (or partly soluble) in the solvents used to dissolve the resin.

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 472, *Plastics — Vocabulary*

ISO 1889, *Reinforcement yarns — Determination of linear density*

ISO 4602, *Reinforcements — Woven fabrics — Determination of number of yarns per unit length of warp and weft*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 472 and the following apply.