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Plastics — Biobased content —

Part 3: Determination of biobased synthetic polymer content

Plastiques — Teneur biosourcée —

Partie 3: Détermination de la teneur en polymère synthétique biosourcé

Reference number
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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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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 61, *Plastics*, Subcommittee SC 5, *Physical-chemical properties*.

ISO 16620 consists of the following parts, under the general title *Plastics — Biobased content*:

— *Part 1: General principles*

— *Part 2: Determination of biobased carbon content*

— *Part 3: Determination of biobased synthetic polymer content*

The following parts are under preparation:

— *Part 4: Determination of the biobased mass content*

— *Part 5: Declaration of biobased carbon content, biobased synthetic polymer content and biobased mass content*

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Introduction

Increased use of biomass resources for manufacturing plastic products is effective in reducing global warming and the depletion of fossil resources.

Current plastic products are composed of biobased synthetic polymers, fossil-based synthetic polymers, natural polymers, and additives that can include biobased materials.

Biobased plastics refer to plastics that contain materials wholly or partly of biogenic origin.

In this series of International Standards, the biobased content of biobased plastics refers to the amount of the biobased carbon content, the amount of the biobased synthetic polymer content, or the amount of the biobased mass content, only.

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Plastics — Biobased content —

Part 3: Determination of biobased synthetic polymer content

WARNING — The use of this part of ISO 16620 can involve hazardous materials, operations, and equipment. This part of ISO 16620 does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this part of ISO 16620 to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

1 Scope

This part of ISO 16620 specifies the method of determining the amounts of biobased part in the biobased synthetic polymer in plastics products. This calculation method for biobased synthetic polymer content is based on the mass of biobased synthetic polymer in the plastics products.

This part of ISO 16620 is applicable to plastic products and plastic materials, polymer resins, monomers, or additives, which are made from biobased or fossil-based constituents.

Knowing the biobased content of plastic products is useful when evaluating their environmental impact.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 16620-1, *Plastics — Biobased content — Part 1: General principles*

ISO 16620-2, *Plastics — Biobased content — Part 2: Determination of biobased carbon content*

3 Terms, definitions, and symbols

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 16620-1 apply.

3.2 Symbols

For the purposes of this document, the symbols given in ISO 16620-1 and the following apply.

W_{n} mass composition of n constituent of the product;

$m_{\mathrm{BSP,n}}$ biobased synthetic polymer content of n constituent of the product;

$x_{\mathrm{B,n}}$ biobased carbon content of n constituent of the product.

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