SLOVENSKI STANDARD
oSIST prEN ISO 22526-3:2021

01-september-2021

Polimerni materiali - Ogljični in okoljski odtis polimernih materialov na biološki osnovi - 3. del: Ogljični odtis postopkov, zahteve in smernice za količinsko opredelitev (ISO 22526-3:2020

Plastics - Carbon and environmental footprint of biobased plastics - Part 3: Process carbon footprint, requirements and guidelines for quantification (ISO 22526-3:2020)

Kunststoffe - CO2- und ökologischer Fußabdruck von biobasierten Kunststoffen - Teil 3: Prozess-CO2-Fußabdruck, Anforderungen und Leitlinien zur Quantifizierung (ISO 22526 -3:2020)

Plastiques - Empreinte carbone et environnementale des plastiques biosourcés - Partie 3: Empreinte carbone des processus, exigences et lignes directrices pour la quantification (ISO 22526-3:2020)

Ta slovenski standard je istoveten z: **prEN ISO 22526-3**

ICS:

13.020.40	Onesnaževanje, nadzor nad onesnaževanjem in ohranjanje	Pollution, pollution control and conservation
83.080.01	Polimerni materiali na splošno	Plastics in general

oSIST prEN ISO 22526-3:2021 **en,fr,de**

INTERNATIONAL STANDARD

ISO 22526-3

First edition
2020-08

Plastics — Carbon and environmental footprint of biobased plastics —

Part 3: Process carbon footprint, requirements and guidelines for quantification

Plastiques — Empreinte carbone et environnementale des plastiques biosourcés —

Partie 3: Empreinte carbone des processus, exigences et lignes directrices pour la quantification

Reference number
ISO 22526-3:2020(E)

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Published in Switzerland

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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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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

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 14, *Environmental aspects*.

A list of all parts in the ISO 22526 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

Increased use of biomass resources for manufacturing plastic products can be 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.

Plastics — Carbon and environmental footprint of biobased plastics —

Part 3: Process carbon footprint, requirements and guidelines for quantification

1 Scope

This document specifies requirements and guidelines for the quantification and reporting of the process carbon footprint of biobased plastics (see ISO 22526-1), being a partial carbon footprint of a bioplastic product, based on ISO 14067 and consistent with International Standards on life cycle assessment (ISO 14040 and ISO 14044).

This document is applicable to process carbon footprint studies (P-CFP) of plastic materials, being a partial carbon footprint of a product, whether or not the results are intended to be publicly available.

Requirements and guidelines for the quantification of a partial carbon footprint of a product (partial CFP) are provided in this document. The process carbon footprint study is carried out according to ISO 14067 as a partial carbon footprint, using the specific conditions and requirements specified in this document.

Where the results of a P-CFP study are reported according to this document, procedures are provided to support transparency and credibility, and also to allow for informed choices.

Offsetting is outside of the scope of this document.

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/TS 14027, *Environmental labels and declarations — Development of product category rules*

ISO/TS 14071, *Environmental management — Life cycle assessment — Critical review processes and reviewer competencies: Additional requirements and guidelines to ISO 14044:2006*

ISO 14044, *Environmental management — Life cycle assessment — Requirements and guidelines*

ISO 14050, *Environmental management — Vocabulary*

ISO 14067:2018, *Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 14050, ISO 14067 and the following 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 http://www.electropedia.org/

3.1.1
process carbon footprint of a product
process CFP
P-CFP
sum of greenhouse gas emissions and removals of the cradle-to-gate processes of a product system, expressed as CO_2 equivalents and based on the relevant stages or processes within the life cycle

Note 1 to entry: The process carbon footprint, being a partial CFP, is based on or compiled from the cradle-to-gate processes or information modules which are part of a product system and may form the basis for quantification of a P-CFP.

3.2 Abbreviated terms

CFP	carbon footprint of a product
P-CFP	Process carbon footprint of a product
CFP-PCR	carbon footprint of a product – product category rules
CO_2e	carbon dioxide equivalent
dLUC	direct land use change
GHG	greenhouse gas
GWP	global warming potential
iLUC	indirect land use change
IPCC	Intergovernmental Panel on Climate Change
LCA	life cycle assessment
LCIA	life cycle impact assessment
LCI	life cycle inventory analysis
LUC	land use change
PCR	product category rules

4 Application

In applying this document, it is advisable to take into consideration societal, environmental, legal, cultural, political and organizational diversity, as well as differences in economic conditions.

Further, it is not intended to provide a basis for trade regulations, legal actions, complaints, defences or other claims in any international, domestic or other proceeding, nor is it intended to be cited as evidence of the evolution of customary international law (adopted from ISO 26000).

Possible applications of this document include the provision of information for research and development of products, improvement of technologies and communication, where relevant.