

English Version

Plastics - Declaration of the bio-based carbon content

Plastiques - Déclaration de la teneur en carbone biosourcé

Kunststoffe - Deklaration des Gehaltes an biobasiertem
Kohlenstoff

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Foreword

This document (CEN/TS 16295:2012) has been prepared by Technical Committee CEN/TC 249 "Plastics", the secretariat of which is held by NBN.

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

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Introduction

Development of bio-based materials is considered to be an important prospect for Europe. This development finds its value in the strategic use of resources, in the effort to shift from fossil resources (under depletion conditions and imported from the global market) to bio-based resources (renewable and sourced in the domestic market) and in the attempt of reducing the environmental impact of materials and products. Efficient use of all available resources and responsible utilization of renewable carbon is a way to participate to this reduction. It is also important to underline that available resources should be preferred also taking into consideration sustainability and environmental impacts following the life cycle thinking approach. Generally speaking, the biological origin of a material does not provide a certainty that the material is of low environmental impact.

CEN/TR 15932 [1] gives recommendations for the terminology and the characterisation of biopolymers and bioplastics.

The bio-based polymers represent a relevant growing industrial sector. Bio-based polymers are, totally or partially, based on biomass, namely recently fixed organic matter.

In order to inform users, customers and stakeholders with a transparent and reliable communication about bio-based polymers, it is important to point out, quantify, and declare the bio-based carbon content.

1 Scope

This Technical Specification provides requirements for the declaration, including statements and labels, of the bio-based carbon content of items, such as polymers, plastic materials, semi-finished plastic products and finished plastic products, including composites.

NOTE 1 This document does not override, or in any way change, legally required environmental information, claims or labelling, or any other applicable legal requirements.

NOTE 2 This document addresses the bio-based content of plastic items, expressed as a fraction of the total organic carbon content. The declaration of biomass content, i.e. the total amount of raw materials of biogenic origin contained in a plastics item, expressed as a percentage of the total mass, is out of scope of this document, as there is currently no well established method to determine the biomass content of polymers or plastics materials.

NOTE 3 Since bio-based polymers can be biodegradable or non-biodegradable, and the origin of the materials renewable or non-renewable, (see CEN/TR 15932), the declaration of the bio-based carbon content is not an indication of the biodegradability of an item.

2 Normative references

The following referenced documents are indispensable for the application 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.

CEN/TS 16137:2011, *Plastics — Determination of the bio-based carbon content*

EN ISO 14020, *Environmental labels and declarations — General principles (ISO 14020:2000)*

EN ISO 14021, *Environmental labels and declarations — Self-declared environmental claims (Type II environmental labelling) (ISO 14021:1999)*

3 Terms and definitions

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

3.1

biomass

material of biological origin excluding material embedded in geological formation or fossilized

[Source: CEN/TR 15932:2010]

3.2

bio-based

derived from biomass

[Source: CEN/TR 15932:2010]

3.3

bio-based polymer

polymer in which constitutional units are totally or in part from biomass origin

[Source: CEN/TR 15932:2010]