TECHNICAL SPECIFICATION

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Plastics - Template for reporting and communication of bio-based carbon content and recovery options of biopolymers and bioplastics - Data sheet

Plastiques - Modèle pour le rapport et la communication de la teneur en carbone biosourcé et des options de valorisations des biopolymères et bioplastiques - Fiche technique

Kunststoffe - Vorlage für die Angabe des Gehaltes an biobasiertem Kohlenstoff und der Verwertungsmöglichkeiten für Biopolymere und Biokunststoffe - Datenblatt

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Contents

Page

Foreword

This document (CEN/TS 16398:2012) has been prepared by Technical Committee CEN/TC 249 “Plastics”, the secretariat of which is held by NBN.

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Introduction

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

Biopolymers and bioplastics can be either bio-based (based on biomass) or biodegradable in industrial composting plants, or both. Furthermore, in the biomedical sector the terms biopolymer and bioplastic mainly refer to the biological compatibility with living tissues. As a consequence, the terms "biopolymer" and "bioplastic" can identify products with very different characteristics.

The different characteristics which relate to the “bio-“prefix can thus be a potential source of confusion as recognised by CEN/TR 15392. As the result of chemical modifications or the combination with non-biodegradable parts, the biodegradable nature of the original biological raw material can be lost in the final biopolymer rendering it non-biodegradable. This is a potential problem especially for disposable products as the end-user may mistake bio-based for biodegradable products and vice-versa.

The terms biopolymer and bioplastic are not exhaustive and more detailed information needs to be declared in order to better specify the real nature and properties of each biopolymer or bioplastic.

1 Scope

This Technical Specification specifies a template for reporting and communication of characteristics covering bio-based carbon content and recovery options (i.e. organic recycling, material recycling and energy recovery) of a given item in commercial business-to-business transactions by means of a specific data sheet for biopolymers and bioplastics. This Technical Specification also gives the relevant methods for the evaluation and verification of the claims.

This Technical Specification provides the principles and requirements for the communication of selected claims in the field of environmental performance and characteristics to be used with reference to items such as biopolymers, bioplastic materials, semi-finished bioplastic products and finished bioplastic products, including composites, before it is available to the end-user or consumer.

This Technical Specification is not intended for use in communicating biobased-content and recovery options in business to consumer communications

Biocompatible polymers and plastics for medical applications, covered by specific provisions, are out of the scope of this document.

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

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.

EN 13431, *Packaging — Requirements for packaging recoverable in the form of energy recovery, including specification of minimum inferior calorific value*

EN 13432, *Packaging — Requirements for packaging recoverable through composting and biodegradation — Test scheme and evaluation criteria for the final acceptance of packaging*

EN 14995, *Plastics — Evaluation of compostability — Test scheme and specifications*

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

CEN/TS 16295, *Plastics — Declaration of the bio-based carbon content*

EN ISO 14020:2001, *Environmental labels and declarations — General principles (ISO 14020:2000)*

EN ISO 14021:2001, *Environmental labels and declarations — Self-declared environmental claims (Type II environmental labelling) (ISO 14021:1999)*

ISO 1928, *Solid mineral fuels — Determination of gross calorific value by the bomb calorimetric method, and calculation of net calorific value*

ISO 15270:2008, *Plastics — Guidelines for the recovery and recycling of plastics waste*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 15270:2008 and the following apply.