MAURITIAN STANDARD

MS ISO 17088:2012

First edition
2013-04-13

Specifications for compostable plastics

ICS 83.080.01

Mauritius Standards Bureau
Moka

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National Foreword

This Mauritian Standard is identical with the International Standard **ISO 17088:2012**, *Specifications for compostable plastics.* It was adopted by the Mauritius Standards Bureau in 2013 on the recommendation of **Textile, Paper & Footwear Standards Committee** and approved by the **Standards Council** on **28 March 2913**.It was notified in the Government Gazette on **13 April 2013*.**

For the purposes of this standard the following change should be made:

the words 'International Standard' should be replaced by 'Mauritian Standard'

*** General Notice No 1000 of 2013**

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 17088 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 5, *Physical-chemical properties*.

This second edition cancels and replaces the first edition (ISO 17088:2008), of which it constitutes a minor revision to clarify the wording of the second paragraph in Subclause 6.3.1.

Introduction

Management of solid wastes is a problem of growing interest around the world. Cities, towns and countries are attempting to divert more materials from disposal (landfills and incineration without energy recovery) by performing different recovery options in order to transform waste into usable products. Plastics recovery technologies include material recovery (mechanical recycling, chemical or feedstock recycling, and biological or organic recycling) and the recovery of energy in the form of usable heat under controlled combustion conditions.

As interest in composting (biological or organic recycling) grows, it will be necessary to identify correctly plastics, and products made from plastics, which will disintegrate and biodegrade satisfactorily under composting conditions and will not leave any persistent or toxic residues.

Specifications for compostable plastics

WARNING — Sewage, activated sludge, soil and compost might contain potentially pathogenic organisms. Therefore appropriate precautions should be taken when handling them. Toxic test, compounds and those whose properties are unknown should be handled with care. The handling of these materials in the context of the application of this International Standard might be further controlled by national and/or regional legislation.

1 Scope

This International Standard specifies procedures and requirements for the identification and labelling of plastics, and products made from plastics, that are suitable for recovery through aerobic composting. The four following aspects are addressed:

a) biodegradation;

b) disintegration during composting;

c) negative effects on the composting process and facility;

d) negative effects on the quality of the resulting compost, including the presence of high levels of regulated metals and other harmful components.

This specification is intended to establish the requirements for the labelling of plastic products and materials, including packaging made from plastics, as “compostable” or “compostable in municipal and industrial composting facilities” or “biodegradable during composting” (for the purposes of this International Standard, these three expressions are considered to be equivalent). The labelling will, in addition, have to conform to all international, regional, national or local regulations (e.g. European Directive 94/62/EC).

NOTE The recovery of compostable plastics through composting can be carried out under the conditions found in well-managed composting plants, where the temperature, water content, aerobic conditions, carbon/nitrogen ratio and processing conditions are optimized. Such conditions are generally obtained in industrial and municipal composting plants. Under these conditions, compostable plastics will disintegrate and biodegrade at rates comparable to yard trimmings, kraft paper bags and food scraps.

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

ISO 472, *Plastics — Vocabulary*

ISO 14855-1, *Determination of the ultimate aerobic biodegradability of plastic materials under controlled composting conditions — Method by analysis of evolved carbon dioxide — Part 1: General method*

ISO 14855-2, *Determination of the ultimate aerobic biodegradability of plastic materials under controlled composting conditions — Method by analysis of evolved carbon dioxide — Part 2: Gravimetric measurement of carbon dioxide evolved in a laboratory-scale test*

ISO 16929, *Plastics — Determination of the degree of disintegration of plastic materials under defined composting conditions in a pilot-scale test*

ISO 20200, *Plastics — Determination of the degree of disintegration of plastic materials under simulated composting conditions in a laboratory-scale test*