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## Plastics — Industrial compostable plastic shopping bags

*Plastiques — Sacs à provisions en plastique compostables en  
compostage industriel*



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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](http://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](http://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](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 14, *Environmental aspects*.

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](http://www.iso.org/members.html).

## Introduction

Increased use of plastic shopping bags can cause several environmental problems, such as terrestrial pollution and contamination of soil, water and marine environment pollution. These pose a severe risk to ecosystems, biodiversity and human health. Recently, many countries, regions, and cities have enacted legislation to ban or severely reduce the use of plastic shopping bags to help tackle these issues.

This document does not aim to bypass this legislation; it aims to specifically address the following aspects where plastic shopping bags suitable for industrial composting can be appropriate for specific uses:

- a) offering methods for testing industrial compostability, followed by demonstrating the impact of industrial compostable shopping bags on the ecological environment;
- b) providing a reference for the evaluation of industrial compostable plastic shopping bags for industrial composting.

Development of this document is expected to improve the quality control of plastic shopping bags suitable for industrial composting, in countries, regions, and cities where industrial composting is available. Furthermore, this document ensures provision of industrial compostable shopping bags to be stronger.



# Plastics — Industrial compostable plastic shopping bags

## 1 Scope

This document specifies the requirements, test methods, test regulations, packaging, transportation and storage of industrial compostable plastic shopping bags.

This document is applicable to plastic shopping bags made from industrial compostable plastic resin as the main raw material, processed by heat sealing or bonding, etc.

This document does not apply to industrial compostable plastic bags such as industrial compostable roll bags (also known as tear bags or point break bags made from above materials) and other bags that are only used in packaging and are not used for carrying shopping.

This document enables to characterise the compostable plastic bags following two testing approaches that bring to the definition of two classes (class I and class II).

NOTE In some regions, industrial composting is referred to as professional composting.

## 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 291, *Plastics — Standard atmospheres for conditioning and testing*

ISO 527-3, *Plastics — Determination of tensile properties — Part 3: Test conditions for films and sheets*

ISO 2859-1, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*

ISO 4592, *Plastics — Film and sheeting — Determination of length and width*

ISO 4593, *Plastics — Film and sheeting — Determination of thickness by mechanical scanning*

ISO 7765-1:1988, *Plastics film and sheeting — Determination of impact resistance by the free-falling dart method — Part 1: Staircase methods*

ISO 17088, *Plastics — Organic recycling — Specifications for compostable plastics*

## 3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

### 3.1

#### **industrial compostable plastic shopping bags**

bags made of industrial compostable plastic resin as the main raw material, and having a structure suitable for carrying goods, which are intended to use for packaging and carrying shopping (as groceries in stores, restaurants and other places) and intended for industrial composting when the use is finished