



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 41639-2022

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

Issued on: July 11, 2022

Implemented on: February 1, 2023

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

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foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules of Standardization Documents" drafted.

This document is identical to ISO 20200.2015 "Determination of the disintegration rate of plastic materials under simulated laboratory-scale composting conditions for plastics" Certainly".

Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

This document describes a test method for determining the disintegration rate of plastic materials exposed to a composting environment. The method is simple, low cost,

Experiments can be performed in any general-purpose laboratory without the need for special biological containers. It requires the use of standard and homogeneous man-made solid waste. people

Solid waste components are required to be dry, clean, safe, and can be stored in the laboratory without odor or health hazards. man-made solid waste

The score does not contain any other plastic materials, because at the end of the test, other plastic materials will be considered as test materials, thus affecting the final evaluation.

The biological container has a small capacity, and there is very little man-made solid waste (about 3L) that needs to be composted. Due to the limited number of test materials, this method simplifies

test steps. The purpose of the test method is not to determine the biodegradability of plastic materials under composting conditions, such as those declared compostable,

Further testing is required.

Plastics under simulated composting conditions at laboratory scale

Determination of the disintegration rate of plastic materials

1 Scope

This document describes a method for determining the disintegration rate of plastic materials under simulated composting conditions at the laboratory scale.

This document does not apply to the determination of the biodegradability of plastic materials under composting conditions. If declared to be compostable, further testing is required.

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations

documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

ISO 3310-1 Technical requirements and inspection of test sieves - Part 1. Test sieves of woven wire mesh (Test sieves-Technical

Note. GB/T 6003.1-2012 Technical requirements and inspection of test sieves - Part 1. Wire woven mesh test sieves (ISO 3310-1:2000, MOD)

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1

compost

Organic soil conditioner obtained from the biological decomposition of the mixture. The mixture consists mainly of plant residues and sometimes some organic matter and certain inorganic substances.

3.2

compostability

The ability of materials to be biodegraded during the composting process.

NOTE. If compostability is claimed, it needs to be stated that the material is biodegradable and disintegrates in the composting system (as shown in the standard test method), and that it is

It is fully biodegradable in use. Composting needs to meet relevant quality standards, such as low heavy metal content, no biological toxicity, no clearly distinguishable the remains.

3.3

composting

An aerobic treatment method that produces compost.

3.4

disintegration disintegration

The material physically breaks down into extremely fine fragments.

3.5

dry mass drymass

The measured mass of the sample after drying.

NOTE. The dry mass is expressed as a percentage of the wet weight of the sample.