
**Plastics — Organic recycling —
Specifications for compostable
plastics**

*Plastiques — Recyclage organique — Spécifications pour les
plastiques compostables*

iTeh Standards
(<https://standards.itih.ai>)
Document Preview

[ISO 17088:2021](https://standards.itih.ai/catalog/standards/iso/f6c8f7de-bf7c-4341-8dd8-b2eef7e53bed/iso-17088-2021)

<https://standards.itih.ai/catalog/standards/iso/f6c8f7de-bf7c-4341-8dd8-b2eef7e53bed/iso-17088-2021>



iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[ISO 17088:2021](https://standards.iteh.ai/catalog/standards/iso/f6c8f7de-bf7c-4341-8dd8-b2eef7e53bed/iso-17088-2021)

<https://standards.iteh.ai/catalog/standards/iso/f6c8f7de-bf7c-4341-8dd8-b2eef7e53bed/iso-17088-2021>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 General	4
5 Basic requirements	4
5.1 General.....	4
5.2 Disintegration during composting.....	4
5.3 Ultimate aerobic biodegradability.....	4
5.4 No adverse effect of compost on terrestrial organisms.....	4
5.5 Control of constituents.....	5
6 Detailed requirements	5
6.1 General.....	5
6.2 Disintegration during composting.....	5
6.2.1 General.....	5
6.2.2 Variation in permitted thickness.....	6
6.3 Ultimate biodegradation.....	6
6.3.1 Aerobic biodegradation.....	6
6.3.2 Potential for biogas production.....	7
6.4 No adverse effects of compost on terrestrial organisms.....	8
6.4.1 General.....	8
6.4.2 Ecotoxicity test scheme.....	8
6.4.3 Plant growth test (mandatory).....	8
6.4.4 Acute earthworm toxicity test (mandatory).....	9
6.4.5 Chronic earthworm toxicity test (mandatory).....	9
6.4.6 Nitrification inhibition test with soil microorganisms (optional).....	9
6.5 Control of constituents.....	9
6.5.1 General.....	9
6.5.2 Regulated metals and other elements.....	9
6.5.3 Per- and poly-fluorinated compounds (PFCs).....	10
6.5.4 Other hazardous substances.....	10
6.5.5 Volatile solids.....	10
7 Declaration of results	10
8 Test report	10
Annex A (informative) Examples of maximum concentrations of regulated metals and other elements	12
Annex B (normative) Detection of per- and poly-fluorinated compounds and maximum concentrations of other hazardous substances	13
Annex C (normative) Determination of ecotoxic effects on higher plants	14
Annex D (normative) Determination of acute ecotoxic effects to earthworm	16
Annex E (normative) Determination of chronic ecotoxic effects to earthworm	18
Annex F (informative) Determination of nitrification activity of soil microorganisms	20
Bibliography	22

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).

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).

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.

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

This third edition cancels and replaces the second edition (ISO 17088:2012), which has been technically revised.

The main changes compared to the previous edition are as follows:

- in [Clause 3](#):
 - the following terms have been added: organic recycling, anaerobic digestion, per- and poly-fluorinated compound, well-managed industrial composting process, industrial composting, organic constituents, home composting;
 - the term catalyst has been deleted;
- 6.1.4 has been deleted;
- a new subclause, [6.2.2](#), on variation in permitted thickness has been added;
- in [6.3](#), requirements regarding biodegradability of constituents have been revised;
- in [6.3.1.1](#), the following references have been added as additional laboratory test methods for biodegradation testing: ISO 14851, ISO 14852, ISO 17556;
- a new subclause, [6.3.2](#), on potential for biogas production has been added;
- [6.4](#) has been extended covering ecotoxicity tests with representative species from three trophic levels;
- in [6.5](#), new requirements regarding control of constituents with respect to per- and poly-fluorinated compounds (PFCs) and hazardous substances (as specified in [Annex B](#)) have been included;
- the list of regulated metals in EU + EFTA countries has been revised;

— new annexes, [Annex B](#), [Annex C](#), [Annex E](#) and [Annex F](#), have been added.

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.

iTeh Standards
(<https://standards.itih.ai>)
Document Preview

ISO 17088:2021

<https://standards.itih.ai/catalog/standards/iso/f6c8f7de-bf7c-4341-8dd8-b2eef7e53bed/iso-17088-2021>