



**International
Standard**

ISO 22002-4

**Prerequisite programmes on food
safety —**

**Part 4:
Food packaging manufacturing**

*Programmes prérequis pour la sécurité des denrées
alimentaires —*

*Partie 4: Fabrication des emballages destinés aux denrées
alimentaires*

**First edition
2025-07**



COPYRIGHT PROTECTED DOCUMENT

© ISO 2025

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	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Construction and layout of buildings	2
4.1 Boundaries of the site/facility.....	2
4.2 Environment.....	2
4.3 Construction and layout.....	2
5 Design and layout of facilities and workspaces	2
5.1 General.....	2
5.2 Internal structures and fittings.....	2
5.3 Location of equipment.....	2
5.4 Storage of food, packaging materials, ingredients and chemicals.....	2
6 Utilities	2
6.1 General.....	2
6.2 Water, ice and steam.....	2
6.3 Air and ventilation.....	2
6.4 Compressed air and other gases.....	2
6.5 Light.....	3
7 Pest control	3
7.1 General.....	3
7.2 Pest control programmes.....	3
7.3 Preventing access.....	3
7.4 Harbourage and infestations.....	3
7.5 Monitoring and detection.....	3
7.6 Control and eradication.....	3
8 Waste, FLW management and recycling	3
8.1 General.....	3
8.2 Recycling and/or reuse of materials.....	3
8.3 Waste containers.....	3
9 Equipment suitability and maintenance	3
9.1 General.....	3
9.2 Equipment capability.....	3
9.3 Maintenance.....	4
10 Management of purchased materials	4
11 Storage, including warehousing, and transport	4
11.1 Storage and warehousing.....	4
11.2 Dispatch.....	4
11.3 Transport.....	4
12 Measures for prevention of contamination	4
12.1 General.....	4
12.2 Chemical contamination.....	4
12.3 Physical contamination.....	5
12.4 Migration.....	5
13 Cleaning and disinfection	5
13.1 General.....	5
13.2 Cleaning agents and tools.....	5
13.3 Cleaning and disinfection programmes.....	5

ISO 22002-4:2025(en)

14	Personal hygiene and employee facilities	5
14.1	General.....	5
14.2	Hygiene facilities.....	5
14.3	Designated eating areas.....	5
14.4	Workwear and protective clothing.....	6
14.5	Health status.....	6
14.6	Personnel cleanliness.....	6
14.7	Personnel behaviour.....	6
14.8	Visitors and external providers.....	6
15	Product and consumer information	6
16	Food defence and food fraud	6
16.1	General.....	6
16.2	Food defence.....	6
16.3	Food fraud prevention.....	6
17	Rework usage	6
	Bibliography	7

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 document 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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 34, Subcommittee SC 17, *Management systems for food safety*.

This first edition cancels and replaces ISO/TS 22002-4:2013, which has been technically revised.

The main changes are as follows:

- the requirements in this document are applicable to food packaging manufacturing only;
- common requirements for the food, feed and packaging supply chain have been moved to new part of the series, ISO 22002-100, which is a requirement of this document.

A list of all parts in the ISO 22002 series can be found on the ISO website.

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.

Introduction

ISO 22000 sets out specific food safety requirements for organizations in the food chain. One such requirement is that organizations establish, implement and maintain prerequisite programmes (PRPs) to assist in controlling food safety hazards.

This document is intended to be used to support management systems designed to meet the requirements specified in ISO 22000 and sets out the detailed requirements for those programmes.

This document does not duplicate the requirements given in ISO 22000 and is intended to be used in conjunction with ISO 22000 and ISO 22002-100.

Prerequisite programmes on food safety —

Part 4: Food packaging manufacturing

1 Scope

This document specifies, in conjunction with ISO 22002-100, requirements for establishing, implementing and maintaining prerequisite programmes (PRPs) to control food safety hazards in the manufacture of food and feed packaging.

This document is applicable to all organizations, regardless of size or complexity.

This document does not apply to other parts of the food supply chain.

Exclusions to requirements can be supported by a sufficient justification that ensures that the exclusion does not adversely impact food safety.

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 22002-100, *Prerequisite programmes on food safety — Part 100: Requirements for the food, feed and packaging supply chain*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 22002-100 and the following 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

migration

transfer of substances from an external source to food

Note 1 to entry: Examples of external sources are packaging material and environment.

3.2

packaging

product or material used to hold and protect food packaging during shipping, transport and storage

3.3

specification

detailed description of the properties and requirements of a material, in particular in relation to its technical, regulatory and specific suitability

3.4

set-off

transfer of substances from one surface of a material or from the surface of a contiguous surface to the food contact surface through direct contact between the surfaces caused by the stacking or reeling of the material(s)

4 Construction and layout of buildings

4.1 Boundaries of the site/facility

The requirements in ISO 22002-100 shall apply.

4.2 Environment

The requirements in ISO 22002-100 shall apply.

4.3 Construction and layout

The requirements in ISO 22002-100 shall apply.

5 Design and layout of facilities and workspaces

5.1 General

The requirements in ISO 22002-100 shall apply.

5.2 Internal structures and fittings

The requirements in ISO 22002-100 shall apply.

5.3 Location of equipment

The requirements in ISO 22002-100 shall apply.

5.4 Storage of food, packaging materials, ingredients and chemicals

The requirements in ISO 22002-100 shall apply.

6 Utilities

6.1 General

The requirements in ISO 22002-100 shall apply.

6.2 Water, ice and steam

The requirements in ISO 22002-100 shall apply.

6.3 Air and ventilation

The requirements in ISO 22002-100 shall apply.

6.4 Compressed air and other gases

The requirements in ISO 22002-100 shall apply.

6.5 Light

The requirements in ISO 22002-100 shall apply.

7 Pest control

7.1 General

The requirements in ISO 22002-100 shall apply.

7.2 Pest control programmes

The requirements in ISO 22002-100 shall apply.

7.3 Preventing access

The requirements in ISO 22002-100 shall apply.

7.4 Harbourage and infestations

The requirements in ISO 22002-100 shall apply.

7.5 Monitoring and detection

The requirements in ISO 22002-100 shall apply.

7.6 Control and eradication

The requirements in ISO 22002-100 shall apply.

8 Waste, FLW management and recycling

8.1 General

The requirements in ISO 22002-100 shall apply.

8.2 Recycling and/or reuse of materials

The requirements in ISO 22002-100 shall apply.

8.3 Waste containers

The requirements in ISO 22002-100 shall apply.

9 Equipment suitability and maintenance

9.1 General

The requirements in ISO 22002-100 shall apply.

9.2 Equipment capability

The requirements in ISO 22002-100 shall apply.

9.3 Maintenance

The requirements in ISO 22002-100 shall apply.

10 Management of purchased materials

The requirements in ISO 22002-100 and the following shall apply.

Where tamper-evident seals are used, a verification process shall be in place to verify conformance to relevant customer or regulatory requirements.

Where incoming raw materials are from recycled source, nano materials or plant-based materials, appropriate measures shall be in place to verify food safety and traceability requirements have been met prior to acceptance.

Raw materials that do not conform to relevant specifications shall be handled under a documented procedure that prevents their unintended use.

Access points to bulk raw materials receiving lines shall be identified and, if appropriate, capped and secured. Discharge into such systems shall take place only after approval and verification of the raw materials received.

11 Storage, including warehousing, and transport

11.1 Storage and warehousing

The requirements in ISO 22002-100 shall apply.

11.2 Dispatch

The requirements in ISO 22002-100 shall apply.

11.3 Transport

The requirements in ISO 22002-100 shall apply.

12 Measures for prevention of contamination

12.1 General

The requirements in ISO 22002-100 shall apply.

12.2 Chemical contamination

Printed and coated materials shall be handled and stored in their intermediate and finished states in such a manner that transfer of substances to the food contact side via set-off or other mechanism is reduced to a safe level appropriate for these materials as defined by hazard analysis.

Chemicals, including cleaning materials and lubricants, shall be evaluated and controlled in order to prevent product contamination.

Lubricant intended to come in contact with the product shall be of a grade suitable for the intended use.

12.3 Physical contamination

Where glass and brittle material are used (for applications other than the food packaging production itself) in production or storage areas, periodic inspection requirements and defined procedures in case of breakage shall be put in place.

Glass and brittle materials (such as hard plastic components in equipment, sight glasses on storage vessels) shall be avoided where relevant and possible.

In production and storage areas, surfaces intended to have contact with the product shall be free from splinters and any other source of contamination. They shall be suitable for easy and effective cleaning.

A formal procedure for the use of “sharps” shall be in place. No sharp objects or loose tools shall be left in any place and on surfaces where product contamination can occur. The use of snap-off blade knives shall be forbidden.

Buildings, facilities and equipment shall be cleaned to remove dust, cobwebs, flakes and fragments to maintain an acceptable level of housekeeping.

12.4 Migration

Where there is a potential food safety hazard due to migration or other transfer mechanism, controls shall be implemented to prevent or control the hazard.

Packaging (e.g. pallets, films, containers) shall be made of suitable material and shall be clean. It shall not contaminate the food packaging.

NOTE In some cases, chemical treatment of pallets can be necessary (such as insecticides, fungicides, pesticides or other chemicals) to meet regulatory or customer requirements.

13 Cleaning and disinfection

13.1 General

The requirements in ISO 22002-100 shall apply.

13.2 Cleaning agents and tools

The requirements in ISO 22002-100 shall apply.

13.3 Cleaning and disinfection programmes

The requirements in ISO 22002-100 shall apply.

14 Personal hygiene and employee facilities

14.1 General

The requirements in ISO 22002-100 shall apply.

14.2 Hygiene facilities

The requirements in ISO 22002-100 shall apply.

14.3 Designated eating areas

The requirements in ISO 22002-100 shall apply.

14.4 Workwear and protective clothing

The requirements in ISO 22002-100 shall apply.

14.5 Health status

The requirements in ISO 22002-100 shall apply.

14.6 Personnel cleanliness

The requirements in ISO 22002-100 shall apply.

14.7 Personnel behaviour

The requirements in ISO 22002-100 shall apply.

14.8 Visitors and external providers

The requirements in ISO 22002-100 shall apply.

15 Product and consumer information

The requirements in ISO 22002-100 shall apply.

16 Food defence and food fraud

16.1 General

The requirements in ISO 22002-100 shall apply.

16.2 Food defence

The requirements in ISO 22002-100 shall apply.

16.3 Food fraud prevention

The requirements in ISO 22002-100 shall apply.

17 Rework usage

Where rework is to be incorporated back into the production process, the acceptable quantity, type and conditions of rework use shall be specified. The method of addition, including any necessary preprocessing stages, shall be defined.

Measures shall be in place to prevent rework processes allowing raw materials, intermediate products or food packaging to be contaminated with materials not intended for food contact.

Documented information shall be retained to demonstrate that conformance to regulatory and customer's requirements are maintained by following the specified rework process.

Bibliography

- [1] ISO 22000, *Food safety management systems — Requirements for any organization in the food chain*



ICS 67.020

Price based on 7 pages

© ISO 2025
All rights reserved

iso.org