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## GUIDE 41

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### Packaging — Recommendations for addressing consumer needs

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## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

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

Draft Guides adopted by the responsible Committee or Group are circulated to the member bodies for voting. Publication as a Guide 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 and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC Guide 41 was prepared by the ISO Committee on consumer policy (COPOLCO).

This first edition of ISO/IEC Guide 41 cancels and replaces ISO Guide 41:1984 which has been technically revised.

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## Introduction

Packaging of products is of consumer interest, the cost of which is borne indirectly by the consumer. Standardization of aspects of packaging should therefore address such factors as safety, healthiness for the intended purpose, comfort and reliability, as well as such general needs as protection of the environment and energy conservation.

The primary purpose of this document is to provide guidance to:

- those drafting standards to meet the packaging needs and requirements of consumers as prospective purchasers of goods or services;
- committees preparing standards for consumer products or services;
- product designers, manufacturers, and others engaged in the work of making decisions concerning packaging;
- enforcement organizations.

A supplier of high quality packaging can benefit from an enhanced reputation. Cost savings in time and money may also be achieved by reduced levels of enquiries and complaints.



# Packaging — Recommendations for addressing consumer needs

## 1 Scope

This Guide gives the general recommendations to be taken into consideration when determining the most suitable type of packaging to be used at the point of sale to protect goods. It is not applicable to packaging solely intended to protect goods in bulk when being transported between manufacturers and retailers.

The objectives of this Guide are to maximize the direct and indirect benefits to purchasers of goods and services by:

- eliminating unnecessary packaging so as to reduce the price of goods and the amount of waste;
- ensuring that goods reach consumers in the condition intended by the manufacturer;
- protecting consumers from any potentially harmful effects of the packaging or its contents;
- enabling consumers to store the goods and their packaging appropriately and to keep, dispose of, or recycle them, in a manner that minimizes their environmental impact.

## 2 Human and environmental safety of packaging material

### 2.1 In storage

**2.1.1** The packaging material should not be potentially harmful by causing:

- a) the emission of substances which may endanger or be harmful to health or to the environment;
- b) the contamination of its contents or the contamination resulting from the interaction of the packaging material with its contents.

**2.1.2** The contents should not leak through the packaging. Of greatest concern is the leakage of potentially hazardous materials. In particular, the following possible causes should be considered, where appropriate:

- a) lack of a seal;
- b) deterioration of the packaging caused by outside influences, such as temperature, light or foreseeable mechanical forces;
- c) deterioration of the packaging caused by the contents.

**2.1.3** In cases where the contents are potentially hazardous, the packaging should be clearly labelled with relevant warnings and instructions for storage and disposal of both packaging and its contents. Special consideration should be given to the guidelines specified in ISO 3864-1 and ISO 3864-2, and in particular to certain consumers in need of tactile warning symbols specified in ISO 11683. The packaging should also be child resistant in accordance with ISO 8317.

**2.1.4** In cases where the passage of time affects the safety and/or degradation of the product, the packaging should be clearly labelled to this effect.

## 2.2 In use

2.2.1 For contents which are potentially harmful:

- a) the packaging should not be misleading in that it should be clearly distinguishable, in colour and shape or by other means, from packaging used for food or beverages;
- b) the packaging should be clearly labelled with relevant warnings and instructions for use;
- c) any relevant warnings and instructions for use, such as "Keep out of children's reach", should be repeated where technically feasible on any inner packaging;
- d) child-resistant packaging according to ISO 8317 should be used.

2.2.2 In cases where the packaging or its contents are potentially harmful upon opening, or upon removal of the contents, the following considerations should be made.

- a) The opening instructions should be clearly given and should be appropriately placed on the packaging.
- b) The means of opening should be suited to the contents, to the type of packaging and to the potential users. In some cases, two or more groups of users may have different, possibly conflicting requirements with respect to the means of opening. If an auxiliary device is required for opening, it should be drawn to consumer's attention as well as be available at the time of purchase.

EXAMPLE Packaging of "potentially harmful" pharmaceuticals, which may come within reach of children, should have child-resistant closures, while the same closure should be easy to open for a person with disabilities, possibly with the help of an auxiliary device.

- c) Warnings should be given as to whether the product should be removed from the packaging once opened and guidance should be given for the conditions of storage of the contents.

EXAMPLE Tinned food.

- d) The packaging should facilitate the safe removal of its contents.

Further guidance can be found in ISO 3864-1 and ISO 3864-2 and in ISO 14021.

2.2.3 In cases where the contents may deteriorate or become harmful if the packaging is left open, clear closing instructions should be given.

EXAMPLE Materials give off noxious fumes. Keep tightly closed.

## 2.3 Disposal

2.3.1 Packaging should be minimized and that used should be, in order of preference, reusable, recyclable, and/or biodegradable. Further guidance can be found in IEC Guide 109 and in ISO Guide 64. In some cases, energy-recoverable packaging might be the most reasonable solution, taking into account ecological as well as economic aspects and existing national waste management systems. The use of reusable packaging is encouraged.

2.3.2 Clear instructions should be given on disposal of packaging and/or contents whenever normal means of disposal are inappropriate.

### 3 Suitability for intended purpose

#### 3.1 Protection

The packaging should protect the contents without reducing either their safety performance or their reliability which would be expected from normal wear during transportation and storage and for the anticipated lifetime of the packaging.

The contents should be protected against:

- a) outside mechanical forces such as impact or vibration;
- b) contamination by potentially damaging substances, for example water or air;
- c) climatic conditions, for example extreme temperatures;
- d) radiation, for example ultraviolet light, except for packaging designed to degrade after a certain time.

#### 3.2 Safe opening

The design of packaging should make it possible for it to be opened safely by the consumer, i.e. without personal injury or damage to the contents.

#### 3.3 Handling

The packaging design should facilitate the following:

- a) the transportation, the storage, and the use of the product from the moment of purchase until the eventual disposal of the packaging;
- b) the protection of the product prior to use and during subsequent storage;
- c) the opening and the keeping of the packaging open when needed, in order to enable the user to have easy and safe access to the contents;
- d) the closing and the keeping of the packaging closed when not in use; all closing devices should be suited to contents, to packaging and to potential users;
- e) the removal of the contents from the packaging without damaging the contents;
- f) the removal of the contents without damaging the packaging when intentions are to reuse the packaging;
- g) the complete emptying of the package;
- h) the filling of a reusable package from the producer's associated refill pack.

#### 3.4 Sizing

Neither the size nor the shape of the packaging should mislead the potential purchaser as to the amount of its contents. Where settling may occur, this information should be clearly stated on the outside of the packaging.

The number of packaging sizes should be kept to a minimum for each product line. Each size should be a simple multiple of the previous size.