



# GUIDE 41-1984 (E)

## Standards for packaging — Consumer requirements

### 0 Introduction

Packaging is a product of consumer interest, the cost of which is borne indirectly by the consumer. Standardization of packaging should therefore address itself to such factors as safety, health, fitness for purpose, comfort and reliability, as well as such general needs as protection of the environment and energy conservation.

When drafting a standard relating to packaging, the requirements set out below in order of priority should be taken into consideration.

### 1 Human and environmental safety

#### 1.1 In storage

1.1.1 The packaging material should not be potentially harmful due to :

- a) emission of substances which may endanger human or other forms of life;
- b) contamination of the contents by the packaging, including those specific cases where the combination of packaging material and contents may cause problems.

1.1.2 The contents, where potentially harmful, should not leak through the packaging due to :

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

1.1.3 Where the contents are potentially harmful, the packaging should be clearly labelled with relevant warnings and instructions for storage and disposal.

1.1.4 Where time affects the safety of the product, the packaging should be clearly labelled to that effect, for instance by way of a phrase such as "Do not use after (date)".

#### 1.2 In use

1.2.1 Where contents are potentially harmful :

- a) the packaging should not be misleading and should be clearly distinguishable, in colour and shape or by any other means if necessary, from food or beverage packaging;
- b) the packaging should be clearly labelled with relevant warnings and instructions for use;
- c) relevant warnings and instructions for use, such as "Keep out of children's reach", should be repeated on any inner packaging.

**1.2.2** Where contents or packaging are potentially harmful on opening, or on removal of contents :

- a) opening instructions should be given clearly and in the appropriate place;
- b) opening means should be suited to the contents, packaging and potential users. In some cases, two or more groups of users may have different, possibly conflicting, requirements with respect to opening means. For example, packaging of pharmaceuticals which may come within reach of children should have child resistant closures, while the same closure should be easy for a handicapped person to open (possibly with the help of an auxiliary device);
- c) closing devices should be designed in such a way that they cannot fall inside the container;
- d) the packaging should facilitate the safe removal of the contents.

**1.2.3** Where contents may become harmful if the packaging is left open :

- a) clear closing instructions should be given, for example "Materials with noxious fumes";
- b) closing devices should be suited to the contents, packaging and potential users.

### **1.3 In disposal**

**1.3.1** Where possible, the packaging and remainder of the contents should be capable of safe disposal by normal means, with no short or long term danger to human beings or the environment. Biodegradable materials are preferred.

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

**1.3.3** Recycling processes, if any, should not cause harm in the short or long term to human beings or the environment.

## **2 Fitness for purpose**

### **2.1 Protection**

The packaging should protect the contents in such a way that neither their performance nor their reliability are affected by :

- a) outside mechanical forces such as impact or vibration;
- b) contamination by undesirable substances, for example water or air;
- c) climatic conditions, for example heat or cold.

### **2.2 Handling**

The packaging design should facilitate :

- a) transport and storage of the product both at the distribution level and in the home;
- b) opening and remaining open of the packaging when needed;
- c) closing and remaining closed of the packaging when needed;
- d) removal of the contents from the packaging;
- e) complete emptying of the packaging.

### **2.3 Physical dimensions**

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

**2.3.2** The number of packaging sizes should be kept to a minimum for each line of product. Each size should be a simple multiple of the previous size (e.g. 25 g, 50 g, 100 g, 200 g).

**2.3.3** The packaging sizes should be suited to the end-use and to the average rate of consumption of the product.

### **3 Conservation of resources and economy**

#### **3.1 Conservation of resources**

The packaging should, as far as possible, be designed with a view to conserving resources. In particular :

- a) the material should be in common supply;
- b) the manufacturing method should be low in energy consumption;
- c) the packaging should be reusable, which implies that it should be easy to clean;
- d) the packaging material used should be reclaimable.

#### **3.2 Economy**

##### **3.2.1 Direct cost to the consumer**

The cost of packaging should add as little as possible to the price of the product. Care should be taken in the design of the packaging to minimize shipping and storage costs, excessive packaging should be avoided, and where not in conflict with other requirements, the least expensive materials should be chosen for packaging.

##### **3.2.2 Cost to the community**

When determining costs, those relating to the disposal of the packaging should also be taken into consideration.

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