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## **Packaging - Terminology and Vocabulary —**

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## 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.

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

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

ISO 21067 was prepared by Working Group 5 (Packaging Terminology and Vocabulary) of Technical Committee ISO/TC 122, *Packaging*.

## Introduction

This International Standards Organization (ISO) Committee Draft for

ISO / TC 122 WG 5 is for "Packaging Terminology and Vocabulary". This vocabulary and terms were compiled from various sources, including:

- \* American National Standards Institute (ANSI)
- \* American Society for Testing & Materials (ASTM D 996)
- \* Australian Standards (AS2400)
- \* British Standards Institution (BSI)
- \* Duetsches Institut fur Normung (DIN 55 405, Part 1)
- \* European Packaging Federation (EPF)
- \* South African Bureau of Standards (SABS)
- \* NATO Stannag AAP-23

The proposed Standard is intended to be used as a source document for use within the global community of countries. Its purpose being that this inventory of terms will be useful in a multilingual thesaurus showing concept relationships as well as terms in other languages. Work on this proposed ISO Standard, begun in 1987, has been under convenorship of ANSI since 1995 as ISO / TC 122 Working Group 5. "WG 5 Packaging Terminology and Vocabulary" presented a listing of 56 terms to the meeting in Prague, Czech Republic in September 1997. From that listing, a Proposed Draft was submitted after meeting in New Orleans, LA (USA) in October 1999. A New Work Item Proposal ISO / TC 122 N 338 Packaging Terminology and Vocabulary was then submitted and subsequently approved. ISO / TC 122 Working Group 5 has subsequently met twice to further review the terms and presentation as an ISO Standard. These meeting were held April 25, 2001 in Stockholm, Sweden and May15-16, 2002 in Berlin, Germany. A rough draft of the decisions from the Berlin meeting have been reviewed by those attendees and is hereby submitted as a Committee Draft.

This standard does not cover environmental statements referring to packaging. These are covered by ISO 14021 Environmental labelling -Self declared environmental claims[5]

# Packaging - Terminology and Vocabulary —

## 1 Scope

This International Standard provides preferred terms and definitions in international commerce as related to packaging and materials handling.

## 2 Terms and Definitions

### 2.1 Basic terms

#### 2.1.1 packaging (product)

product made of any material of any nature to be used for the containment, protection, handling, delivery and presentation of goods, from raw material to processed goods, from the producer to the user or consumer

#### 2.1.2 packaging (operation)

operations involved in the preparation of goods for containment, protection, handling, delivery and presentation of goods, from raw material to processed goods, from the producer to the user or consumer

NOTE The term includes preservation, packing, marking and unitization

#### 2.1.3 pack (noun)

package (noun)

packaging (2.1.1) and its elements

#### 2.1.4 pack (verb)

packing (verb)

package (verb)

create a package (2.1.3)

## 2.2 General Terms

### 2.2.1 container

freight container

shipping container

article of transport equipment of a permanent character and accordingly strong enough to be suitable for repeated use, specially designed to facilitate the carriage of goods by one or more means of transport without breakage of load (Adapted from RID/ADR regulations [2] [3]).

NOTE 1 The term "without breakage of load" means that the container is handled as a single unit during transit.

NOTE 2 The word "container" is often used as a nonspecific term for a receptacle. It is not used in this sense in this International Standard. The word "packaging" is used.

### **2.2.2 primary packaging**

packaging (2.1.1) designed to come into direct contact with the contents

### **2.2.3 secondary packaging**

packaging (2.1.1) designed to contain one or more primary packages together with any protective materials where required

### **2.2.4 transport packaging**

packaging (2.1.1) designed to contain one or more articles or packages or bulk material for the purposes of handling and/or distribution

### **2.2.5 consumer packaging**

retail packaging

sales packaging

packaging (2.1.1) constituting, with its contents, a sales unit to the final user or consumer at the point of retail

### **2.2.6 industrial packaging**

packaging (2.1.1) for raw materials, components, partially manufactured or finished goods for distribution from manufacturer to manufacturer, but not to a retail consumer.

### **2.2.7 bulk packaging**

method of containing loose articles or granular materials for shipping or storage.

### **2.2.8 child-resistant packaging**

package which is difficult for young children to open (or gain access to the contents), but which it is possible for adults to use properly

### **2.2.9 base pack**

unit pack

smallest pack (2.1.3) with identical or different products which are to be supplied at the same time

### **2.2.10 commercial package**

packaging(2.1.1) which, as far as quantity of content, type, quality or design of the package are concerned, conforms to the requirements of the respective level of trading (Adapted from NATO glossary of packaging terms and definitions [1])

**2.2.11 consolidated pack**

more than one package grouped together to facilitate handling operations.

**2.2.12 containerization**

shipping method in which packages or articles are packed together in one container

**2.2.13 overpack**

enclosure used by a single consignor to contain one or more packages consolidated into a single unit easier to handle and stow during transport (Adapted from United Nations Recommendations on the Transport of Dangerous Goods [4])

NOTE In English the same term is also used to describe the use of excessive packaging.

**2.3 Types of Packaging****2.3.1 bag**

flexible packaging made of paper, plastics film, textile, woven material or other suitable material generally enclosed on all sides except one forming an opening that may or may not be sealed after filling.

**2.3.2 sack**

bag (2.3.1) but also defined in other ISO Standards as "Sack"

**2.3.3 bale**

shaped unit of compressed articles or materials bound with cord, strapping or metal ties under tension. It may also be wrapped (Adapted from NATO glossary of packaging terms and definitions [1])

**2.3.4 barrel**

packaging of circular cross-section with greater length than breadth, with convex sides and two flat ends of equal diameter. They are normally made of wooden staves bound together with hoops

**2.3.5 bottle**

rigid or semi-rigid packaging typically of glass or plastic, having a comparatively narrow neck or mouth with a closure and usually no handle

**2.3.6 jar**

small rigid packaging of glass, plastic or earthenware with a wide mouth

**2.3.7 box**

packaging with rectangular or polygonal sides completely enclosing the contents

NOTE: The sides may contain apertures for handling or ventilation.

**2.3.8 carton**

folding collapsible packaging generally made from folding boxboard

NOTE: Although this term is in general use in English it may not have an equivalent term in other languages

**2.3.9 case**

non-specific term for a transport packaging, often used to refer to a box

**2.3.10 crate**

transport packaging with incomplete surfaces (Adapted from United Nations Recommendations on the Transport of Dangerous Goods [4])

**2.3.11 wirebound box**

collapsible box usually made of wood or plywood, the parts of which are reinforced and connected to each other by means of tempered wires; the box is usually closed by twisting of the wire ends or by connecting prefabricated loops

**2.3.12 bundle**

number of articles bound with cord, strapping or ties under tension. It may also be wrapped

**2.3.13 can**

small primary packaging, usually cylindrical and made of metal

**2.3.14 drum**

flat, embossed or convex-ended packaging of circular cross section

NOTE Barrels are not classified as drums

**2.3.15 non-removable head drum**

tight head drum

drum (2.3.14) with a non-removable-head that has at least one closure device fitting in the top as a means of filling and emptying contents

**2.3.16 removable-head drum**

open head drum

drum (2.3.14) with removable head which is secured to the body by either (1) a closing ring, or (2) crimping of top over the body, or (3) tape.

NOTE: This definition does not apply to drums for the transport of dangerous goods.

**2.3.17 pail**

packaging of circular cross section, tapered and equipped with a lid and usually a handle

NOTE this definition does not apply to pails for the transport of dangerous goods

**2.3.18 unit load**

unitized load

item or assembly of items assembled or restrained in distribution for handling and transport as a single entity

**2.4 Packaging Materials**

Note Further terms used in relation to materials used in packaging are given in annex A

**2.4.1 absorbent packaging material**

material included within a package to soak-up liquids resulting from leakage, seepage, or liquefaction of the contents

**2.4.2 barrier material**

material that retards transmission or passage of solids, liquids, gases or radiated energy

**2.4.3 cushioning material**

material used to isolate or reduce the effect of externally applied shock or vibration forces, or both.

**2.4.4 shrink wrap**

shrink film

plastics material that shrinks in size when heated

**2.4.5 stretch wrap**

material that elongates when applied under tension and, through elastic recovery, conforms to the item(s) packaged

**2.5 Auxiliary Terms in Use with Packaging****2.5.1 closure**

means of closing a packaging to retain the contents

**2.5.2 preservation**

application of protective measures to prevent deterioration, such as cleaning, drying, and the use of barrier materials, cushioning, preservatives and containers where necessary

**2.5.3 staple**

stitch

u-shaped round or flat wire fastener that may or may not be clinched, used to hold parts together

**2.5.4 strapping**

flexible strip material generally of flat or circular cross section, used to secure packaging or articles within a container, hold together a bundle or bale, reinforce a packaging or secure packagings or articles to a pallet

**2.5.5 tape**

strip of flexible material with one or more adhesive faces

## Annex A (Informative)

Further terms used in relation to materials used in packaging

### A.1 Paper and board

#### A.1.1 paper

a generic term for a range of materials in the form of a coherent sheet or web – excluding sheets or laps of pulp as commonly understood for papermaking or dissolving purposes and non-woven products – made by deposition, of vegetable, mineral, animal or synthetic fibers, or their mixtures, from a fluid suspension onto a suitable forming device, with or without the addition of other substances. They may be coated, impregnated or otherwise converted, during or after their manufacture, without necessarily losing their identity as paper. In conventional papermaking processes, the fluid medium is water; new developments, however, include the use of air and other fluids.

Cf. sheet, web

NOTE – In the generic sense the term “paper” may be used to describe both paper and board as defined in this standard. The primary distinction between paper and board normally is based upon thickness or grammage, though in some instances the distinction will be based on the characteristics and/or end-use. For example, some materials of lower grammage such as certain grades of folding boxboard and corrugating raw materials are generally referred to as “board” while other materials of higher grammage such as certain grades of blotting paper, felt paper and drawing paper, are generally referred to as “paper”.

#### A.1.2 paperboard

One of the two broad divisions of paper (general term, the other being paper as specific term). Paperboard, in general, is heavier and thicker than paper and is constructed primarily for strength properties such as stiffness, tearing resistance and the like. Sheets with thickness greater than 0.010 in. (0.25 mm) (with some exceptions) fall into this class

NOTE: See note to A.1.1.

#### A.1.3 boxboard

folding boxboard

a general term designating the grades of paperboard having good scoring and folding properties used for fabrication of folding and set-up boxes (cartons). It is customarily shipped in sheets.

#### A.1.4 containerboard

any paperboard made specifically for the manufacture of corrugated and solid fiberboard packaging.. Basis weight is expressed in pounds per 1000 ft<sup>2</sup> (or grams per meter<sup>2</sup>). It is customarily shipped in rolls.

#### A.1.5 corrugated fiberboard

board consisting of one or more sheets of fluted paper glued to a flat sheet of board or between several sheets.

Single face corrugated fiberboard - board consisting of one sheet of fluted paper stuck to one sheet of facing.

Single wall corrugated fiberboard - board consisting of one sheet of fluted paper interposed between and glued to two facings.

Double wall corrugated fiberboard - board consisting of two sheets of fluted paper interposed between and stuck to three facings.

Triple wall corrugated fiberboard - board consisting of three sheets of fluted paper interposed between and glued to four facings.

### **A.1.6 solid fiberboard**

board which may be pasted or unpasted and often incorporating a lining of kraft or other strong furnish intended and suitable for the manufacture of packing cases and drums.

## **A.2 plastics film**

plastics sheet

flexible membrane made from a polymeric material

## **A.3 tin plate**

thin sheet steel coated with tin.

## Bibliography

- [1] AAP-23 NATO glossary of packaging terms and definitions
- [2] The European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR). Geneva: United Nations 1999 ISBN 92-1-139057-5.
- [3] Regulations Concerning the International Carriage of Dangerous Goods by Rail (RID). Berne:Organisation intergouvernementale pour les transports ferroviaires (OTIF), 1999.
- [4] The United Nations Recommendations on the Transport of Dangerous Goods -- Model Regulations. ST/SG/A.C. 10/1/Rev.12. Geneva: United Nations, 1997 ISBN 92-1-139057-5).
- [5] ISO 14021 Environmental labelling -Self declared environmental claims
- [6] ISO/DIS 4046-3 Paper, board pulps and related terms – Vocabulary – Part 3: Papermaking terminology, ISO 2000
- [7] ISO/DIS 4046-4 Paper, board pulps and related terms – Vocabulary – Part 4: Paper and board grades and converted products, ISO 2000