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Packaging — 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.

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.

ISO 21067 was prepared by Technical Committee ISO/TC 122, *Packaging.*

Introduction

This vocabulary was compiled from various sources, including the following:

— American National Standards Institute (ANSI)

— American Society for Testing & Materials (ASTM D 996)

— Australian Standards (AS 2400)

— British Standards Institution (BS 3130-1)

— Deutsches Institut für Normung (DIN 55405)

— European Packaging Federation (EPF)

— South African Bureau of Standards (SABS)

— NATO STANAG AAP-23

This International Standard is intended to be used as a source document within the global community. 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 standard, begun in 1987, has been under convenorship of ANSI since 1995 as ISO/TC 122, Working Group 5, *Terminology and vocabulary*.

This International Standard does not cover environmental statements referring to packaging. These are covered by ISO 14021.

Packaging — Vocabulary

1 Scope

This International Standard specifies preferred terms and definitions related to packaging and materials handling, for use in international commerce.

For packaging designed for the transport of dangerous goods, terms and definitions are given in the United Nations Recommendations on the Transport of Dangerous Goods [9].

2 Terms and definitions

2.1 Basic terms

2.1.1
packaging
⟨product⟩ any product to be used for the containment, protection, handling, delivery, storage, transport and presentation of goods, from raw materials to processed goods, from the producer to the user or consumer, including processor, assembler or other intermediary

2.1.2
packaging
⟨operation⟩ operations involved in the preparation of goods for containment, protection, handling, delivery, storage, transport and presentation of goods, from raw materials 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 contents

2.1.4
pack, verb
package, verb
create a package (2.1.3)

2.2 General terms

2.2.1
container
shipping container
⟨for transport⟩ article of transport equipment strong enough to be suitable for repeated use and specially designed to facilitate the carriage of goods by one or more means of transport without breakage of load

NOTE 1 Adapted from RID/ADR regulations [7] [8].

NOTE 2 The phrase "without breakage of load" means that the container is handled as a single unit during transit.

NOTE 3 The term “container” is often used as a non-specific term for a receptacle (see 2.2.15).

NOTE 4 In the USA and some other parts of the world, shipping containers are packagings such as boxes, crates and drums that are approved by regulatory agencies for the transport of goods.

NOTE 5 For full definition of freight container, see ISO 830:1999, 3.1.

2.2.2
primary packaging
packaging (2.1.1) designed to come into direct contact with the product

2.2.3
secondary packaging
packaging (2.1.1) designed to contain one or more primary packagings together with any protective materials where required

2.2.4
distribution packaging
transport packaging
packaging (2.1.1) designed to contain one or more articles or packages, or bulk material, for the purposes of transport, handling and/or distribution

2.2.5
consumer packaging
retail packaging
sales packaging
packaging (2.1.1) constituting, with its contents, a sales unit for the final user or consumer at the point of retail

2.2.6
industrial packaging
packaging (2.1.1) for raw materials, components and partially manufactured or finished goods, for distribution from manufacturer to manufacturer and/or other intermediaries such as processor or assembler

2.2.7
bulk packaging
packaging intended to contain loose articles, large masses of solids or granular materials, or liquids for transport or storage

2.2.8
child-resistant package
package which is difficult for young children to open (or gain access to the contents), but which is possible for adults to use properly

2.2.9
base pack
unit pack
smallest pack (2.1.3) with identical or different products that 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

NOTE Adapted from NATO glossary of packaging terms and definitions [6].

2.2.11
consolidated pack
more than one package grouped together to facilitate handling operations

2.2.12
containerization
shipping method in which goods are loaded together in one container (2.2.1)

2.2.13
overpack
enclosure generally used by a single consignor to contain one or more packages consolidated into a single unit to facilitate easy handling and stowage during transport

NOTE 1 Adapted from United Nations Recommendations on the Transport of Dangerous Goods [9].

NOTE 2 In English, the same term is also used to describe the use of excessive packaging.

2.2.14
packaging chain
sector of the overall economy involving all economic operators concerned with the packaging and/or distribution of goods

2.2.15
container
⟨for packaging⟩ non-specific receptacle capable of closure

cf. 2.2.1.

2.2.16
flexible packaging
packaging whose shape is likely to change after the contents are added or removed

2.2.17
rigid packaging
packaging whose shape remains essentially unchanged after the contents are added or removed

2.3 Types of packaging (product)

2.3.1
bag
flexible packaging of single or multiple layers or plies, 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)

NOTE "Bag" is also defined in other International Standards as "sack".

2.3.3
bale
shaped unit of compressed articles or materials bound with cord, strapping or metal ties under tension

NOTE 1 It may also be wrapped.

NOTE 2 Adapted from NATO glossary of packaging terms and definitions [6].

2.3.4
barrel
packaging of circular cross-section, with greater length than breadth, with convex sides and two flat ends of equal diameter

NOTE A barrel is normally made of wooden staves bound together with hoops.

2.3.5
bottle
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
rigid packaging with rectangular or polygonal sides, usually completely enclosing the contents

NOTE The sides may contain apertures for handling or ventilation.

2.3.8
carton
folding collapsible packaging generally made from boxboard

NOTE Although this term is in general use in English, it might not have an equivalent term in other languages.

2.3.9
case
non-specific term for transport packaging, often used to refer to a box

2.3.10
crate
transport packaging with incomplete surfaces

NOTE 1 Adapted from United Nations Recommendations on the Transport of Dangerous Goods [9].

NOTE 2 In the USA and some other areas, crates may be fully sheathed.

2.3.11
wirebound box
box whose parts are reinforced and connected to each other by means of tempered wires

NOTE This type of box is usually closed for shipment by twisting of the wire ends or by connecting prefabricated loops.

2.3.12
bundle
number of articles bound with materials under tension, which also may be wrapped

2.3.13
can
small primary packaging, usually cylindrical and usually made of metal

2.3.14
drum
cylindrical packaging whose bottom end is permanently fixed to the body and top end (head) is either removable or non-removable

NOTE Barrels are not classified as drums.

2.3.15
non-removable-head drum
tight-head drum
cylindrical packaging whose ends are permanently fixed to the body, with openings for filling, emptying and venting in the top end (head)

NOTE This definition is not applicable to drums used for the transport of dangerous goods.

2.3.16
removable-head drum
open-head drum
drum whose bottom end is permanently fixed to the body and whose top end can be removed as a lid (head)

NOTE 1 The top may have additional openings.

NOTE 2 This definition is not applicable to drums used 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 is not applicable to pails used for the transport of dangerous goods.

2.3.18
unit load
unitized load
single item or assembly of items designed to enable these to be handled as a single entity

2.3.19
jerrican
metal or plastics primary packaging of rectangular or polygonal cross-section for liquids

NOTE An aperture on the top or side of the body and a carrying device is usual.

2.3.20
intermediate bulk container
IBC
primary packaging designed to

a) have a capacity of 3 m^3 (3 000 litres) or less,

b) be handled mechanically with or without integral or detachable devices,

c) contain liquids, pastes or solids (for instance powders or granules), and

d) be resistant to the stresses imparted during handling and transport as determined by tests

[ISO 15867:2003]

NOTE 1 This definition is not applicable to IBCs used for the transport of dangerous goods.

NOTE 2 Definitions of types of IBCs and related terms can be found in ISO 15867.

2.3.21
collapsible tube
flexible packaging having a nozzle and cap at one end and closed at the other, serving as both container and dispenser

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 or prevents transmission or permeation of gases 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 and/or vibration forces

2.4.4
shrink wrap
shrink film
plastics material that shrinks in size when heated to conform to the item(s) packaged

2.4.5
stretch wrap
material that elongates when applied under tension and which, through elastic recovery, conforms to the item(s) packaged

2.5 Auxiliary terms in use with packaging

2.5.1
closure
means of closing packaging to retain its contents

2.5.2
preservation
application of protective measures, such as cleaning, drying, the use of preservatives and barrier materials, to prevent deterioration

2.5.3
staple
stitch
U-shaped round or flat wire fastener, which may or may not be clinched, for closing packaging or holding package components together

2.5.4
strapping
strip of material, generally of flat or circular cross-section, used to secure packaging or articles within a container, to hold together a bundle or bale, to reinforce a packaging, or to secure packagings or articles to a pallet

2.5.5
tape
strip of flexible material with one or more adhesive faces

2.5.6
pallet
rigid horizontal platform of minimum height, compatible with handling by pallet trucks, and/or fork-lift trucks and other appropriate handling equipment, used as a base for assembling, stacking, storing, handling or transporting goods and loads

[ISO 445:1996]

NOTE Definitions of types of pallet and related terms can be found in ISO 445.

2.5.7
label
piece of paper or other material displaying information and affixed to the packaging or article

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

2.5.8
tag
label (2.5.7) attached to the packaging or article by means of a tie or other suitable means

2.5.9
adhesive, noun
substance capable of holding materials together by surface attachment

2.5.10
fastener
device that serves to secure one part to another

2.5.11
sealing
method of bonding mating surfaces

2.5.12
heat sealing
method of bonding mating surfaces under controlled application of heat, pressure and dwell time

2.5.13
pressure sealing
cold sealing
sealing under controlled application of pressure and dwell time

Annex A
(informative)

Further terms used in relation to materials used in packaging

A.1 Paper and board

NOTE Other definitions relating to paper and board can be found in ISO 4046 (all parts).

A.1.1
paper

material in the form of a coherent sheet or web, excluding sheets or laps of pulp as commonly understood for paper-making or -dissolving purposes and non-woven products, made by deposition of vegetable, mineral, animal or synthetic fibres, or their mixtures, from a fluid suspension onto a suitable forming device, with or without the addition of other substances

NOTE 1 Paper may be coated, impregnated or otherwise converted, during or after its manufacture, without necessarily losing its identity as paper. In conventional paper-making processes, the fluid medium is water; new developments, however, include the use of air and other fluids.

NOTE 2 In the generic sense, the term “paper” may be used to describe both paper and board as defined in this International Standard. The primary distinction between paper and board is normally based upon thickness or grammage, although in some instances the distinction is 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”.

NOTE 3 Adapted from ISO 4046-3:2002.

A.1.2
board
paperboard

certain types of paper frequently characterized by their relatively high rigidity

NOTE 1 See NOTE 2 to A.1.1.

NOTE 2 Adapted from ISO 4046-3:2002.

A.1.3
boxboard
folding boxboard

grades of paperboard having good scoring and folding properties, used for fabrication of folding and set-up boxes (cartons)

NOTE 1 It is customarily shipped in sheets.

NOTE 2 Adapted from ISO 4046-3:2002.

A.1.4
containerboard

paperboard made specifically for the manufacture of corrugated and solid fibreboard packaging

NOTE 1 Basis weight is expressed in grams per square metre (or pounds per 1 000 ft^2).

NOTE 2 It is customarily shipped in rolls.

A.1.5
corrugated fibreboard

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

[ISO 4046-4:2002]

A.1.6
solid fibreboard
board made from one sheet or several sheets pasted together, often incorporating a lining of kraft or other strong furnish, intended for the manufacture of packing cases and drums

NOTE 1 Solid fibreboard generally has a grammage above 600 g/m^2.

NOTE 2 Adapted from ISO 4046-4:2002.

A.2
plastics
polymeric material which may be formed into flexible film or rigid packaging

A.3
tin plate
tinplate
cold-rolled low-carbon mild sheet steel or coil, coated on both surfaces with tin that is applied in continuous electrolytic operation

A.4
tin mill black plate
untreated low-carbon cold-reduced steel plate, for use only with non-corrosive non-food products in cans with bonded seams

A.5
electrolytic chromium/chromium oxide coated steel
ECCS
tin-free steel
cold-rolled low-carbon mild steel or coil, electrolytically treated to produce on both surfaces a duplex film of metallic chromium adjacent to the steel substrate with a top layer of hydrated chromium oxides or hydroxides

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