



# FINAL DRAFT International Standard

## ISO/FDIS 830

### Freight containers — Vocabulary

*Conteneurs pour le transport de marchandises — Vocabulaire*

ISO/TC 104

Secretariat: **ANSI**

Voting begins on:  
**2024-05-30**

Voting terminates on:  
**2024-07-25**

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CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

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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.

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](http://www.iso.org/directives)).

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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](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 104, *Freight containers*.

This third edition cancels and replaces the second edition (ISO 860:1999), which has been technically revised.

The main changes are as follows:

- some terms and definitions have been modified.

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](http://www.iso.org/members.html).

## Introduction

ISO 830 was first published in 1981 alongside many of the international standards developed for the freight container and was amended in 1999 to reflect the development of freight containers and the introduction of new container types and terms.

Since the publication of the second edition of this document there has been an increase in the number of freight container types and variations and changes to length and height variations. Details of the development of the types, variations and terminology is shown in [Annex A](#)

Concurrently with the increase of container types and variations, regional and national containers have started to develop. These too carry freight and conform to the definition of a container as described in the International Convention for Container Safety (CSC Code) and therefore can be described as “freight containers” and appear to be similar to the “series 1 freight container”. Therefore, this document defines terms and definitions from all freight containers, and [Clause 3](#) identifies the various terms that are used to describe and differentiate the various types of container used internationally and regionally.

The term “freight container” or “shipping container” is used to differentiate it from other types of containers that cannot be used intermodally. Therefore, any structure that outwardly appears to be freight container whether it is able to transport freight or not, is referred to as a “freight container”.

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# Freight containers — Vocabulary

## 1 Scope

This document defines terms and definitions related to containers.

NOTE The different parts and components used in the construction of containers are specified in ISO 9897.

## 2 Normative references

There are no normative references in this document.

## 3 Terms related to Containers

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 Terms related to container designation

#### 3.1.1 container

article of transport equipment which is:

- of a permanent character and accordingly strong enough to be suitable for repeated use;
- specially designed to facilitate the transport of goods, by one or more modes of transport, without intermediate reloading;
- designed to be secured and/or readily handled, having corner fittings for these purposes;
- and, of a size such that the area enclosed by the four outer bottom corners is either:
  - at least 14 m<sup>2</sup> (150 sq ft) or
  - at least 7 m<sup>2</sup> (75 sq ft), if it is fitted with top corner fittings,

but does not include vehicles or packaging

[SOURCE: *International Convention for Safe Containers, 1972, as amended (CSC)*]

#### 3.1.2 freight container

article of transport equipment which is

- a) of a permanent character and accordingly strong enough to be suitable for repeated use;
- b) specially designed to facilitate the carriage of goods by one or more modes of transport, without intermediate repacking;
- c) fitted with devices permitting its ready handling, particularly its transfer from one mode of transport to another;

- d) so designed as to be easy to pack/fill and empty;
- e) having an internal volume of at least 1 m<sup>3</sup>

Note 1 to entry: The term “freight container” includes neither vehicles nor conventional packing.

Note 2 to entry: Also known as a shipping container.

### 3.1.3

#### **intermodal container**

*container* (3.1.1) that can be moved from one transport mode to another without requiring its contents to be repacked.

### 3.1.4

#### **ISO container**

*container* (3.1.1) manufactured in compliance with applicable ISO freight container standards at the time of its manufacture.

Note 1 to entry: Relevant ISO freight container standards are listed in the Bibliography

### 3.1.4.1

#### **Series 1 freight container**

variant of an *ISO container* (3.1.4) that complies with dimensional requirements of ISO 668 and tested in accordance with the latest version of the relevant part of ISO 1496.

### 3.1.5

#### **smart container**

*container* (3.1.1) that can embed track and trace and/or monitoring systems

## 3.2 Terms related to container characteristics

### 3.2.1

#### **container classification**

alphanumeric code starting with a 1 followed by one to three uppercase letters related to the container's length and height.

Note 1 to entry: See A.3 for a list of container classifications.

### 3.2.2

#### **container type**

group or groups that are subdivided according to the following concepts: mode of transport, categories of cargo, and the physical characteristics of the container

Note 1 to entry: See A.2 for list of container types.

### 3.2.3

#### **type code**

two character code comprising an alphabetic character in the first position that indicates the *container type* (3.2.2), and a second numeric or an alphabetic character that indicates the main characteristics related to the container type

Note 1 to entry: Container type codes are given in ISO 6346.

Note 2 to entry: [Annex A](#) Table 1 and [Clause 4.1](#) do not constitute an exhaustive list of container types.

Note 3 to entry: When the second character is a numeral, the container is designed and tested with full stacking and racking capabilities, as defined in the ISO 1496 series.

Note 4 to entry: When the second character is alphabetic, the container is designed and tested with reduced stacking and/or racking capabilities.



Note 5 to entry: In [4.1.1](#) and 4.1.2, where a reference is given in square brackets after the name of a container type, this identifies the document in which the specification and testing requirements are given for the type of container in question.

Note 6 to entry: When type codes are quoted with definitions, they are given as typical examples only.

### 3.2.4

#### size code

two alphanumeric characters indicating the container size, i.e. *external dimensions* ([5.1.1](#))

Note 1 to entry: Container size codes are given in ISO 6346.

Note 2 to entry: For Series 1 containers, the size designations are given in [Annex A](#) Table 2.

Note 3 to entry: The first character is a numeric or alphabetic character representing the length.

Note 4 to entry: The second character is a numeric or alphabetic character representing the width and the height.

### 3.2.5

#### container variation

sub categories of *container type* ([3.2.2](#)) reflecting a specific use or design

## 4 Terms related to container types

### 4.1 Terms related to general cargo containers

#### 4.1.1

##### general cargo container

*freight container* ([3.1.2](#)) that is not intended for use in air transport, nor primarily intended for the carriage of a particular category of cargo such as a cargo requiring temperature control, liquid or gas cargo, dry solids in bulk or cargoes such as automobiles (cars) or livestock

##### 4.1.1.1

##### general-purpose container

*general cargo container* ([4.1.1](#)) that is totally enclosed and weatherproof, having a rigid roof, rigid side walls, rigid end walls and a floor, having at least one of its end walls equipped with doors and intended to be suitable for the transport of cargo of the greatest possible variety

Note 1 to entry: The simplest form of this type of container is given the type code G0.

##### 4.1.1.1.1

##### folding container

closed box type *container* ([3.1.1](#)) designed and tested to be able to fold either vertically or horizontally

Note 1 to entry: Detailed type code numbers have been allocated to containers folding on their base structure (W0), and containers folding on their side structure (W1).

##### 4.1.1.2

##### specific-purpose container

*general cargo container* ([4.1.1](#)) that has constructional features either for the “specific purpose” of facilitating packing/filling and unpacking/emptying other than by means of doors at one end of the container, or for other specific purposes such as ventilation

Note 1 to entry: The container types covered by this term are those defined in [4.1.1.2.1](#) to [4.1.1.2.4](#).

##### 4.1.1.2.1

##### closed ventilated container

*specific-purpose container* ([4.1.1.2](#)) that is totally enclosed and weatherproof, having a rigid roof, rigid side walls, rigid end walls and a floor, at least one of its end walls equipped with doors and that has devices for ventilation, either natural or mechanical (forced)

Note 1 to entry: The type codes for the simplest forms of these containers are:

- V0 for those specifically designed for carriage of cargo where natural ventilation is required;
- V2 for those having mechanical ventilation.

#### 4.1.1.2.2

##### **open-top container**

*specific-purpose container* (4.1.1.2) that has no permanent rigid roof but can have a flexible and movable or removable cover, made, for example, of canvas or plastic or reinforced plastic material, normally supported on movable or removable roof bows or a removable hard top roof structure, held in place using clips

Note 1 to entry: Such containers can have movable or removable top-end transverse members above their end doors.

Note 2 to entry: The simplest form of this type of container is given by the type code U0.

#### 4.1.1.2.3

##### **platform container**

*specific-purpose container* (4.1.1.2) that has no superstructure at all, but has the same length, width, strength requirements and handling and securing features as required for interchange

Note 1 to entry: Containers of this type have type code P0.

#### 4.1.1.2.4

##### **platform-based container**

*specific-purpose container* (4.1.1.2) that has no side walls, but has a base structure similar to that of a platform container

Note 1 to entry: See 4.1.1.2.3.

#### 4.1.1.2.5

##### **platform-based containers with incomplete superstructure and fixed ends**

*platform-based container* (4.1.1.2.4) without any permanently fixed longitudinal load-carrying structure between ends other than at the base

Note 1 to entry: The term “load” as used refers to a static/dynamic type load, not a cargo load.

Note 2 to entry: Containers of this type have type codes P1 and P2.

#### 4.1.1.2.6

##### **platform-based container with incomplete superstructure and folding ends**

*platform-based container* (4.1.1.2.4) with incomplete superstructure) but having folding end frames with a complete transverse structural connection between corner posts

Note 1 to entry: See 4.1.1.2.5.

Note 2 to entry: Containers of this type have type codes P3 and P4.

#### 4.1.1.2.7

##### **platform-based container with complete superstructure**

*platform-based container* (4.1.1.2.4) with a permanently fixed longitudinal load-carrying structure between ends at the top

Note 1 to entry: The term “load” as used refers to a static/dynamic type load, not a cargo load.

Note 2 to entry: Containers of this type have type code P5.

## 4.2 Terms related to specific cargo containers

### 4.2.1

#### **specific cargo container**

*container* (3.1.1) which is primarily intended for the carriage of particular categories of cargo

**4.2.1.1  
thermal container**

*freight container* (3.1.2) built with insulating walls, doors, floor and roof designed to slow the rate of heat transmission between the inside and the outside of the container

Note 1 to entry: See ISO 1496-2.

Note 2 to entry: Thermal containers include containers having devices for cooling, heating or atmosphere control.

Note 3 to entry: Terminology applicable to thermal containers is given in 7.2.

**4.2.1.1.1  
insulated container**

*thermal container* (4.2.1.1) having no devices for either cooling or heating, or both, either permanently installed or attached, but can be fitted with either removable cooling or removable heating device, or both

Note 1 to entry: Containers of this type have type codes H5 and H6.

**4.2.1.1.2  
mechanically refrigerated container**

*thermal container* (4.2.1.1) fitted with a mechanical refrigeration unit

Note 1 to entry: Containers of this type have type codes R0 and R2.

**4.2.1.1.3  
refrigerated and heated container**

*thermal container* (4.2.1.1) fitted with a refrigerating appliance (mechanical or expendable refrigerant) and heat-producing appliance

Note 1 to entry: Containers of this type have type codes R1, R3 and R5.

**4.2.1.1.4  
self-powered container**

*thermal container* (4.2.1.1) fitted with an integrated power source that permits the refrigeration unit to operate for at least 12 hours independent of any other power source

**4.2.1.1.5  
integrated machinery**

*thermal container* (4.2.1.1) designed so that the refrigeration plant is fitted into the front-end structure, rather than using a removable refrigeration unit

Note 1 to entry: Containers of this type have type code R5.

**4.2.1.1.6  
heated container**

*thermal container* (4.2.1.1) with only heating capability, either powered by a remote or self-powered power source

**4.2.1.1.7  
refrigerated and heated container with removable equipment**

*thermal container* (4.2.1.1) fitted with a removable refrigerating appliance (mechanical or expendable refrigerant) and a heat-producing appliance

Note 1 to entry: Containers of this type have type codes H0, H1 and H2.

**4.2.1.1.8  
eutectic thermal container**

*thermal container* (4.2.1.1) fitted with plates designed to store energy and produce a cooling effect without the need for an external power source

Note 1 to entry: Containers of this type have type code H8.