

SLOVENSKI STANDARD
SIST EN ISO 12048:2002**01-januar-2002****BUXca Yý U**
SIST EN 22872:1998
SIST EN 22874:1998
SIST ISO 12048:1996

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Packaging - Complete, filled transport packages - Compression and stacking tests using
a compression tester (ISO 12048:1994)

Verpackung - Versandfertige Packstücke - Kompressions- und Stapelprüfung unter
Verwendung einer Kompressionsprüfmaschine (ISO 12048:1994)

Emballages - Emballages d'expédition complets et pleins - Essais de compression et de
gerbage a l'aide d'une machine d'essai de compression (ISO 12048:1994)

Ta slovenski standard je istoveten z: EN ISO 12048:2000

ICS:

55.180.40	Celovita, napolnjena transportna embalaža	Complete, filled transport packages
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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 12048

December 2000

ICS 55.020

Supersedes EN 22872:1992 and EN 22874:1992

English version

Packaging - Complete, filled transport packages - Compression and stacking tests using a compression tester (ISO 12048:1994)

Emballages - Emballages d'expédition complets et pleins - Essais de compression et de gerbage à l'aide d'une machine d'essai de compression (ISO 12048:1994)

Verpackung - Versandfertige Packstücke - Kompressions- und Stapelprüfung unter Verwendung einer Kompressionsprüfmaschine (ISO 12048:1994)

This European Standard was approved by CEN on 16 November 2000.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Page 2
EN ISO 12048:2000

Foreword

The text of the International Standard from Technical Committee ISO/TC 122 "Packaging" of the International Organization for Standardization (ISO) has been taken over as an European Standard by Technical Committee CEN/TC 261 "Packaging", the secretariat of which is held by AFNOR.

This European Standard supersedes EN 22872:1992 and EN 22874:1992.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2001, and conflicting national standards shall be withdrawn at the latest by June 2001.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 12048:1994 has been approved by CEN as a European Standard without any modification.

NOTE: Normative references to International Standards are listed in annex ZA (normative).

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Annex ZA
(normative)**Normative references to international publications with their
corresponding European publications**

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE Where an International Publication has been modified by common modifications, indicated by (mod.), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN</u>	<u>Year</u>
ISO 2206	1987	Packaging - Complete, filled transport packages - Identification of parts when testing	EN 22206	1992

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INTERNATIONAL STANDARD

**ISO
12048**

First edition
1994-10-15

Packaging — Complete, filled transport packages — Compression and stacking tests using a compression tester

iTeh STANDARD PREVIEW
*Emballages — Emballages d'expédition complets et pleins — Essais de
compression et de gerbage à l'aide d'une machine d'essai de compression*
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Reference number
ISO 12048:1994(E)

ISO 12048:1994(E)**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.

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.

International Standard ISO 10248 was prepared by Technical Committee ISO/TC 122, *Packaging*, Subcommittee SC 3, *Performance requirements and tests*.

This first edition cancels and replaces ISO 2872:1985 and ISO 2874:1974, which have been technically revised.

Annexes A and B of this International Standard are for information only.

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International Organization for Standardization
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Packaging — Complete, filled transport packages — Compression and stacking tests using a compression tester

1 Scope

This International Standard specifies a method for testing the resistance to compression of complete, filled transport packages and a method for carrying out a stacking test on complete, filled transport packages using the same apparatus.

The test may be used to assess the performance of a package in terms of its strength or the protection it offers to its contents when it is subjected to compressive forces. A test may be performed either as a single test to investigate the effects (deformation, collapse or failure) of compression or stacking, or as part of a sequence of tests designed to measure the ability of a package to withstand a distribution system that includes a compression or stacking hazard.

This test may also be used as a stacking test to investigate performance under particular conditions of loading, as, for example, when the bottom package in a stack rests on an open-decked pallet.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2206:1987, *Packaging — Complete, filled transport packages — Identification of parts when testing*.

ISO 2233:—¹⁾, *Packaging — Complete, filled transport packages — Conditioning for testing*.

3 Principle

The test package is placed between the platens of a compression tester and either:

- in the case of a compression test, a load is applied until failure occurs or predetermined values for load or displacement are reached; or
- in the case of a stacking test, a predetermined load is applied for a predetermined time or until failure occurs.

4 Apparatus

4.1 Compression tester, motor-driven, platen-type, capable of applying load through uniform movement of one or both platens at a relative speed of 10 mm/min \pm 3 mm/min.

NOTES

1 The comparison between results obtained from apparatus operated at other speeds (for example 12,5 mm/min \pm 2,5 mm/min) and results obtained at 10 mm/min \pm 3 mm/min is not recommended.

2 For certain packagings, such as metal drums or wooden crates, lower speeds may be required to prevent load peaks in excess of the predetermined value.

4.1.1 Platens

Each platen shall be

- flat:
 - with a tolerance of 1 part in 1 000 for surface areas $< 1 \text{ m}^2$;
 - for surface areas $> 1 \text{ m}^2$, such that when placed horizontally the difference in height between the lowest and highest points of the platen does not exceed 1 mm;
- dimensioned so as to extend over the whole area of that side of the test package or interposed devices with which it is in contact;

1) To be published. (Revision of ISO 2233:1986)