



SLOVENSKI STANDARD
SIST EN 22872:1998
01-oktober-1998

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Packaging - Complete, filled transport packages - Compression test (ISO 2872:1985)

Verpackung - Versandfertige Packstücke - Stauchprüfung (ISO 2872:1985)

Emballages - Emballages d'expédition complets et pleins - Essai de compression (ISO 2872:1985)

STANDARD PREVIEW
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Ta slovenski standard je istoveten z: ^{SIST EN 22872:1998} **EN 22872:1992**
<https://standards.iteh.ai/catalog/standards/sist/a2db2c2f-a84b-4e31-90c4-46c4d0e6240e/sist-en-22872-1998>

ICS:

55.180.40	Celovita, napolnjena transportna embalaža	Complete, filled transport packages
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SIST EN 22872:1998 **en**

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EUROPEAN STANDARD

EN 22872:1992

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 1992

UDC 621.798.1:620.173

Descriptors: Packing, transport packing, complete- and filled packages, impact tests, drop tests

English version

**Packaging - Complete, filled transport packages -
Compression test (ISO 2872:1985)**

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Emballages - Emballages d'expédition complets
et pleins - Essai de compression
(ISO 2872:1985)

Verpackung - Versandfertige Packstücke -
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REPUBLIKA SLOVENIJA
MINISTRSTVO ZA ZNANOST IN TEHNOLOGIJO
Urad RS za standardizacijo in meroslovje
LJUBLJANA

SIST..... EN 22872

PREVZET PO METODI RAZGLASITVE

-10- 1998

This European Standard was approved by CEN on 1992-10-30. 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 Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

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

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Foreword

In 1991, ISO 2872:1985 "Packaging - Complete, filled transport packages - Compression test" was submitted to the CEN Primary Questionnaire procedure.

Following the positive result of the CEN/CS Proposal ISO 2872:1985 was submitted to the Formal Vote.

The result of the Formal Vote was positive.

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 May 1993, and conflicting national standards shall be withdrawn at the latest by May 1993.

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

[SIST EN 22872:1998](https://standards.iteh.ai/catalog/standards/sist/a2db2c2f-a84b-4e31-90c4-10c40e62-40311-422872-1998)

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Endorsement notice

The text of the International Standard ISO 2872:1985 was approved by CEN as a European Standard without any modification.



International Standard



2872

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Packaging — Complete, filled transport packages — Compression test

Emballages — Emballages d'expédition complets et pleins — Essai de compression

Second edition — 1985-12-15

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UDC 621.798.1 : 620.165.7

Ref. No. ISO 2872-1985 (E)

Descriptors : packing, transport packing, complete-and filled packages, tests, compression tests.

Price based on 2 pages

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

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International Standard ISO 2872 was prepared by Technical Committee ISO/TC 122, *Packaging*.

This second edition cancels and replaces the first edition (ISO 2872-1973), which has been technically revised as follows: <https://standards.iteh.ai/catalog/standards/sist/a2db2c2f-a84b-4e31-90c4-46c4d0e6240e/sist-en-22872-1998>

- the specification of the compression tester has been modified slightly (clause 4 "Apparatus");
- a new clause on "Package preparation" has been added.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

Packaging — Complete, filled transport packages — Compression test

1 Scope and field of application

This International Standard specifies two methods for testing complete, filled transport packages for compression resistance. The test may be used to assess the performance of a package in terms of its strength or of the protection it offers to its contents when it is subjected to compressive forces. It may be performed either as a single test to investigate the effects (deformation, collapse or failure) of compression 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 hazard.

NOTE — A test method using a compression tester to determine the stacking resistance of a package is given in ISO 2874.

2 References

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

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

ISO 2874, *Packaging — Complete, filled transport packages — Stacking test using compression tester.*

3 Principle

Placing of the test package between the platens of a compression tester, and compression, the load and platen displacement being recorded until failure occurs or predetermined values for load or displacement are reached.

4 Apparatus

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

The platens shall be

- flat, so that when placed horizontally the difference in height between the lowest and highest points does not exceed 1 mm;
- dimensioned so as to extend over the whole area of the panels with which they are in contact;

- rigid, so as not to deform by more than 1 mm at any point when the tester applies a load of 75 % of its maximum rating, either to a centrally placed 100 mm × 100 mm × 100 mm block having sufficient strength to accept this load without failure, or to four similar blocks placed at the four corners, in the case of swivel-mounted platens.

One platen shall remain horizontal, within two parts per 1 000 at all times during the test.

The other platen shall be either rigidly mounted so as to remain horizontal within two parts per 1 000 at all times during the test, or be held by a universal joint at its centre and so be free to tilt in any direction.

The working surfaces of platens suitable for testing packages with a length or width or diameter greater than 1 000 mm may be locally recessed for fixing bolts, etc.

4.2 Recording device or other means of measurement, with a percentage of error for loads not exceeding ± 2 % of the load and an accuracy of platen displacement of ± 1 mm.

5 Package preparation

The test package shall normally be filled with its intended contents. However, simulated or dummy contents may be used, on condition that the dimensions and physical properties of such contents shall be as close as possible to those of the intended contents.

Ensure that the test package is closed normally, as if ready for distribution. If simulated or dummy contents are used, ensure that the normal method of closure is still employed.

6 Conditioning

The package shall be conditioned in accordance with one of the conditions described in ISO 2233.

7 Procedure

Whenever possible the test shall be carried out in the same atmospheric conditions as used for conditioning, where this is critical to the materials or application of the package. In other circumstances, the test shall be carried out in atmospheric conditions which are as near as practicable to those used for conditioning.

ISO 2872-1985 (E)

7.1 Method 1

7.1.1 Place the test package centrally on the lower platen of the test machine (4.1), in the predetermined attitude.

7.1.2 Apply the load by relative movement of the platens at 10 ± 3 mm/min until the predetermined value is reached or until premature collapse.

In measuring deformation, the datum zero point shall be taken as the reading corresponding to a load of 220 N.

7.2 Method 2

Where it is desired to measure the ability of a complete, filled transport package to resist external compressive loads applied to opposite edges or corners of the package, the procedure is the same as in Method 1, but it is essential to use a tester in which the platens are not free to tilt.

8 Test report

The test report shall include the following particulars :

- a) reference to this International Standard;
- b) number of replicate packages tested;
- c) full description of the package, including dimensions, structural and material specifications of the package and its fittings, cushioning, blocking, closure or reinforcing arrangements;
- d) description of contents — if simulated or dummy contents were used, full details shall be given;
- e) gross mass of the package and mass of contents, in kilograms;
- f) relative humidity, temperature and time of conditioning; temperature and relative humidity of test area at time of test; whether these values comply with the requirements of ISO 2233;
- g) the attitude in which the package was tested, using the method of identification given in ISO 2206;
- h) load imposed, in newtons, and the duration of time of the package under load;
- j) location of points on packages and stage of test at which measurements were made;
- k) type of apparatus used, including whether the tester was mechanically or hydraulically operated and whether or not both platens were rigidly mounted;
- m) any deviations from the test methods described in this International Standard;
- n) a record of the result, including load/platen displacement recording, with any observations which may assist in correct interpretation;
- p) date of the test;
- q) signature of tester.

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