SLOVENSKI STANDARD
SIST EN 770:1997

01-maj-1997

Vreče za transport živil - Papirnate vreče

Sacks for the transport of food aid - Paper sacks

Säcke für den Transport von Lebensmitteln für die Nahrungsmittelhilfe - Papiersäcke

Sacs pour le transport de l'aide alimentaire - Sacs faits en papier

Ta slovenski standard je istoveten z: EN 770:1994

ICS:

55.080	Vreče. Vrečke	Sacks. Bags
67.250	Materiali in predmeti v stiku z živili	Materials and articles in contact with foodstuffs

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English version

Sacks for the transport of food aid - Paper sacks

Sacs pour le transport de l'aide alimentaire - Sacs faits en papier

Säcke für den Transport von Lebensmitteln für die Nahrungsmittelhilfe - Papiersäcke

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CEN

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

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Contents

Foreword

This European Standard was drawn up by CEN Technical Committee CEN/TC 120 "Sacks for the transport of food aid", the secretariat of which is held by NNI.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EC Directive(s).

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of an identical text or by endorsement, at the latest by November 1994, and conflicting national standards shall be withdrawn at the latest by November 1994.

In accordance with the CEN/CENELEC Internal Regulations, 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 and United Kingdom.

1 Scope

This European Standard specifies the general characteristics, requirements and methods of test of paper sacks.

This European Standard is applicable to paper sacks, having a filling mass up to 50 kg, intended for the transport of food aid.

2 Normative references

This European Standard incorporates by dated or undated referencee, 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.

EN 765:194	Sacks for the transport of food aid - Sacks made of woven polyolefin fabric other than polypropylene only
prEN 1086:1993	Sacks for the transport of food aid - Recommendations on the selection of type of sack and the liner in relation to the product to be packed
EN 22206:1992	Packaging - Complete, filled transport packages - Identification of parts when testing (ISO 2206:1987)
EN 22233:1992	Packaging - Complete, filled transport packages - Conditioning for testing (ISO 2233:1986)
EN 26590-1:1992	Packaging - Sacks - Vocabulary and types - Part 1: Paper sacks (ISO 6590-1:1983)
EN 26591-1:1992	Packaging - Sacks - Description and method of measurement - Part 1: Empty paper sacks (ISO 6591-1:1984)
EN 27023:1992	Packaging - Sacks - Method of sampling empty sacks for testing (ISO 7023:1983)
EN 27965-1:1992	Packaging - Sacks - Drop test - Part 1: Paper sacks (ISO 7965-1:1984)
ISO 1924-1:1985	Paper and board - Determination of tensile properties - Part 2: Constant rate of elongation method
ISO 3676:1983	Packaging - Unit load sizes - Dimensions

3 Definitions

For the purposes of this standard, the definitions given in EN 26590-1 apply.

NOTE: Hereafter where the word "sack" is used in the text of this European Standard, a paper sack is to be understood.

4 General characteristics

4.1 Construction

4.1.1 The sack shall be made of sackpaper.

4.1.2 The sack shall be made of one ply or more plies and may be equipped with a liner in accordance with prEN 1086.

4.1.3 All types of EN 26590-1 may be used.

4.1.4 The closure of the filled sack shall be designed to prevent leakage of the product during transport.

5.1.5 Materials other than natural materials used in the manufacture and closure of the sack (inner liner excluded) shall have a UV-resistance in accordance with 5.7.3 of EN 765:1994. These materials can be tested in the construction in which they are used in the sack.

4.2 Dimensions

4.2.1 The dimensions of the empty sack shall be chosen so that, if necessary, after filling the dimensions of the filled sack comply with the dimensions of the unit load as specified in ISO 3676.

4.2.2 The dimensional tolerances of the sack should be agreed upon between the purchaser and the supplier.

4.2.3 The dimensions and the dimensional tolerances of the sack shall be recorded in the ordering documents.

4.2.4 The description of the dimensions, the method of measuring the dimensions and the dimensional designation of the sack shall be in accordance with EN 26591-1.

4.3 Food compatibility

Sacks which come in contact with foodstuffs shall meet the legal requirements of the CEN member states which are applicable to them.

5 Test methods and test requirements

5.1 Sampling

5.1.1 The sampling shall be done in accordance with EN 27023.

NOTE: Table 1 of EN 27023:1992 refers to the selection of units. Table 2 of EN 27023:1992 refers to the selection of sacks out of each selected unit.

5.1.2 The sampling shall be done on the date the empty sacks are ready for dispatch by the supplier.

5.1.3 If resampling is necessary it shall be done in accordance with EN 27023.

If, as a result of an accident during sampling or testing, resampling is necessary, a new sample shall be taken following the procedure specified in EN 27023. Selection may then, however, be made from the same units as before unless agreed otherwise.

If, for any other reason, resampling is necessary, the procedure followed should follow the specificiations of EN 27023.

5.2 Conditioning

5.2.1 Before testing all samples shall be conditioned in accordance with EN 22233:1992 condition G (temperature + 23 °C ± 2 °C, relative humidity 50 % ±5 %).

5.2.2 The period of conditioning of the samples shall be not less than 8 h.

5.2.3 The various tests as described shall be carried out in the same atmospheric conditions as used for conditioning, see 5.2.1, or, if not possible, the tests, shall commence within 10 min after removing the samples from the conditioning atmosphere.

5.3 Surface identification

If necessary the identification of the various surfaces of the filled sacks when testing shall be as given in EN 22206.

5.4 Date of completion of the tests

All tests shall be completed within four weeks after the date the empty sacks are ready for dispatch by the supplier.

5.5 Determination of the quality of sackpaper

The quality of the papersack is expressed in the Tensile Energy Absorbtion (TEA) which is to be calculated with the formula:

$$TEA_{Average} = (TEA_{MD} * TEA_{CD})^{1/2}$$

where TEA_{MD} is the TEA in the machine direction;
TEA_{CD} is the TEA in the cross direction.

TEA_{MD} and TEA_{CD} are measured and calculated in accordance with ISO 1924-2 where the measurement shall be made electronically.

5.6 Drop test

5.6.1 Test method

The drop test shall be carried out in accordance with EN 27965-1:1992 using the constant drop height method.

5.6.2 Filling of the sacks

The sacks shall be filled with the intended commodity or, if this is not possible, with similar material, taking into account type and size of granules etc., to give the same degree of filling. The mass of the filling material shall be within ± 0,2% of that of the nominal mass of the intended contents of the sack.

5.6.3 Test procedure

5.6.3.1 Drop test sequence

The drop test shall be carried out on three sacks and shall comprise the following sequence:

a) butt dropping;
b) flat dropping.

5.6.3.2 Butt dropping

The sack shall be dropped from a height of 1,20 m on the bottom of the sack.

5.6.3.3 Flat dropping

The sack shall be dropped from a height of 1,60 m, twice on one flat face and twice on the opposite flat face.

5.6.4 Criteria for passing the drop test

After each drop there shall be no rupture or loss of contents.

A slight discharge e.g. from closures or stitch holes, upon impact shall not be considered a failure of the sack provided that no further leakage occurs after the sack has been raised clear of the ground.

6 Marking

The marking of the sack with the suppliers identification is voluntary.

7 Test report

The test report shall include a statement that all tests have been carried out in accordance with this European Standard and shall include at least the following information:

a) name and address of the supplier;
b) number of the contract or order reference;
c) date, place and description of the sampling;
d) the sum of the $TEA_{AVERAGE}$ values of all paper plies
e) description of the sacks in accordance with 4.2.4 of this European Standard;
f) description of the filling material used for testing;
g) intended nett mass in kg;
h) results of and comments on the drop test;
i) any deviations from the test methods given in this European Standard;
j) name and address of the tester;
k) signature of the tester;
l) date of the test.