

SLOVENSKI STANDARD SIST EN 12710:2006 01-september-2006

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Fibreboard drums - Removable head (open head) drums with closing rings with a nominal capacity of 15 I to 250 I

Fibertrommeln - Deckelfässer mit Spannringen mit einem Nennvolumen von 15 l bis 250

### (standards.iteh.ai)

Futs en carton - Futs a ouverture totale d'une capacité nominale de 15 l a 250 l <u>SIST EN 12710:2006</u> https://standards.iteh.ai/catalog/standards/sist/20cda7c2-3dd6-48b1-8e49-Ta slovenski standard je istoveten 2:4512a/EN:12710:2006

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en

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## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

### EN 12710

May 2006

ICS 55.140

Supersedes EN 12710:1999

**English Version** 

# Fibreboard drums - Removable head (open head) drums with closing rings with a nominal capacity of 15 I to 250 I

Fûts en carton - Fûts à ouverture totale d'une capacité nominale de 15 l à 250 l

Fibertrommeln - Deckelfässer mit Spannringen mit einem Nennvolumen von 15 l bis 250 l

This European Standard was approved by CEN on 28 April 2006.

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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 Central Secretariat has the same status as the official versions.

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

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EN 12710:2005 (E)

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### Foreword

This document (EN 12710:2006) has been prepared by Technical Committee CEN/TC 261 "Packaging", the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by November 2006, and conflicting national standards shall be withdrawn at the latest by November 2006.

This document supersedes EN 12710:1999

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

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#### Introduction

This standard is limited to the specification of constructional details and the establishment of a preferred range of diameters and capacities for fibreboard drums, in recognition of the fact that one of the important characteristics of fibreboard drums is that they can be produced in various ranges of diameters and heights with constructions to suit specific products and market needs and can be fitted with a variety of lids, bases and fasteners.

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#### 1 Scope

This European Standard specifies the construction requirements for cylindrical fibreboard drums with a nominal capacity of 15 I to 250 I and the preferred range of diameters and capacities.

#### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN ISO 2233:2001, Packaging — Complete, filled transport packages and unit loads — Conditioning for testing (ISO 2233:2000)

#### 3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply.

#### 3.1

#### fibreboard drum

rigid, cylindrical container with a sidewall, made of multiple plies of virgin or recycled paper or board firmly bonded together, and a base, firmly connected to the sidewall and a bottom chimb, and a top, which can be removed as a did and closed by means of the closing ring over the top chimb, the chimb being secured to the sidewall

#### 3.2

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nominal capacity (NC)<sup>standards.iteh.ai/catalog/standards/sist/20cda7c2-3dd6-48b1-8e49-</sup>

capacity in litres which, by convention, is used to represent a class of drums of similar brimful capacities

#### 3.3

sidewall cylindrical body of the drum

#### 3.4

lid removable top of the drum

#### 3.5

chimb top or bottom rim of the drum

#### 3.6

#### internal lining

fixed inner ply of material, other than that which is used for the general construction of the drum, used to give the drum specific properties

#### 3.7

#### external lining

fixed outer ply of material, other than that which is used for the general construction of the drum, used to give the drum specific properties

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#### 3.8

#### barrier

multiple or single ply of material, other than that which is used for the general construction of the drum, incorporated into the sidewall, lid or base of the drum

#### 3.9

liner

separate bag or semi-rigid container, used inside the drum to give the drum specific properties

#### 3.10

#### internal coating

material applied to the inner surface of the drum, by spray, brush or other means to give the drum specific properties

#### 3.11

#### external coating

material applied to the outer surface of the drum, by spray, brush or other means to give the drum specific properties

#### 3.12

#### closing ring

band by which a lid can be held to the top of the drum and secured in position by means of a fastening device

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### 3.13

## horizontal bottom wall of the drum (standards.iteh.ai)

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#### Dimensions https://standards.iteh.ai/catalog/standards/sist/20cda7c2-3dd6-48b1-8e49-4

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#### 4.1 General

The drum description shall include the dimensions listed in 4.2 and 4.3. In addition the description shall include the nominal capacity as determined in 4.4. Drum dimensions are shown in annex A.

#### 4.2 Diameter

#### 4.2.1 Nominal internal diameter

The nominal internal diameter is used only to provide a classification of drum diameters.

#### 4.2.2 Internal diameter $(d_1)$

The internal diameter  $(d_1)$ , in millimetres, is the internal measurement from the inner sidewall to the diametrically opposite inner sidewall.

#### 4.2.3 Outside diameter $(d_2)$

The outside diameter (overall diameter)  $(d_2)$ , in millimetres, is the measurement over the closing ring, but not over the fastening device.

#### 4.3 Height and depth

#### 4.3.1 Internal height $(h_1)$

The internal height  $(h_1)$ , in millimetres, is the height from the inner surface of the drum base to the top surface of the top inner bead profile. This dimension indicates the maximum filling height.

#### 4.3.2 External height (*h*<sub>2</sub>)

The external height  $(h_2)$ , in millimetres, is the height from the lowest point of the drum to the top edge of the closing ring.

#### 4.3.3 Stacking height

The stacking height, in millimetres, of the drum is calculated by:

height of a stack of N drums =  $(N - 1) \times h_2 + h_3$ .

#### 4.3.4 Overall height $(h_3)$

The overall height ( $h_3$ ), in millimetres, is the height of a drum closed for despatch, measured from the lowest point of the drum to the highest point of the lid.

NOTE Depending on id design, overall height  $(h_3)$  and external height  $(h_2)$  may be the same.

In all designs the difference between  $h_3$  and  $h_2$ ,  $(h_3 - h_2)$ , shall not be greater than the chimb depth  $(h_4)$  to ensure stability of stacking.

**SIST EN 12710:2006 4.3.5 Chimb deptht(***h*<sub>4</sub>**)**standards.iteh.ai/catalog/standards/sist/20cda7c2-3dd6-48b1-8e49-59e60854512a/sist-en-12710-2006

The chimb depth  $(h_4)$ , in millimetres, is the measurement from the lowest point of the chimb to the underside of the base.

#### 4.4 Capacity calculations

#### 4.4.1 Nominal capacity (NC)

The nominal capacity (see 3.2) is the internal volume, in litres, to the top internal bead of the drum as calculated from the dimensions  $d_1$  and  $h_1$ .

#### 4.4.2 Shipping cube

Dimensions  $d_2$  and  $h_3$  are used to calculate the shipping cube.

#### 4.5 Tolerances

As drums are manufactured from materials which are subject to dimensional and weight variations according to changes in atmospheric conditions, all dimensions and tolerances are quoted on completed drums which have been conditioned for 24 h at 23 °C  $\pm$  2 °C and 50 %  $\pm$  2 % r.h., in accordance with EN ISO 2233:2000, Condition 7.

NOTE Short term fluctuations and measurement limitations may cause individual measurements to vary up to  $\pm 5$  % relative humidity.