SLOVENSKI STANDARD
SIST EN 13025-1:2006

01-februar-2006

Nadomeǵ̣ a:
SIST EN 13025:2001

Embalaǵa - Ploḷ evinke - 1. del: Nazivna polnilna prostornina za okrogle, valjaste in koniḷ ne sploǵno uporabne kovinske posode do 40.000 ml

Packaging - Light gauge metal containers - Part 1: Nominal filling volumes for round, cylindrical and tapered general use metal containers up to 40 000 ml

Verpackungen - Feinstblechverpackungen - Teil 1: Nennfüllvolumen von runden, zylindrischen und konischen wiederverschließbaren Behältern bis 40 000 ml

Emballage - Emballages métalliques légers - Partie 1: Volumes nominaux de remplissage des récipients métalliques cylindriques, ronds et coniques a usage géneral d'un volume inférieur ou égal a 40 000 ml

Ta slovenski standard je istoveten z: **EN 13025-1:2005**

ICS:

55.120	Ploḷ evinke. Tube	Cans. Tins. Tubes

SIST EN 13025-1:2006 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 13025-1

November 2005

ICS 55.120; 55.140

Supersedes EN 13025:2000

English Version

Packaging - Light gauge metal containers - Part 1: Nominal filling volumes for round, cylindrical and tapered general use metal containers up to 40 000 ml

Emballage - Emballages métalliques légers - Partie 1: Volumes nominaux de remplissage des récipients métalliques cylindriques, ronds et coniques à usage géneral d'un volume inférieur ou égal à 40 000 ml

Verpackungen - Feinstblechverpackungen - Teil 1: Nennfüllvolumen von runden, zylindrischen und konischen wiederverschließbaren Behältern bis 40 00 ml

This European Standard was approved by CEN on 12 September 2005.

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.

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.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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

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Contents

Page

Foreword

This European Standard (EN 13025-1:2005) 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 May 2006, and conflicting national standards shall be withdrawn at the latest by May 2006.

This European Standard supersedes EN 13025:2000.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

Efficient packaging is of great importance for the distribution and the protection of goods. Insufficient or inappropriate packaging can lead to damage or wastage of the contents of the pack.

NOTE Part 1 of this European Standard is a generic representation of the range of light metal containers of the given diameters to a maximum capacity of 40 000 ml.

Further parts may be added to this European Standard to impart more specific detail of different container types. Such additional parts, however, will remain within the parameters of Part 1.

Annex A on the recommended nominal diameters of round cylindrical and tapered general use metal containers of up to 40 000 ml is for information only. Annex B on test methods for drainability is normative. The Bibliography gives reference to Standards useful in the manufacture of light gauge metal packaging.

1 Scope

This European Standard specifies the range of nominal filling volumes in common use for round cylindrical and tapered general use containers of up to 40 000 ml volumetric capacity, metal thickness not exceeding 0,49 mm nominal.

Recommended diameters related to this range of nominal filling volumes are shown in an Annex A to this European Standard.

2 Nominal filling volumes

Nominal filling volumes for round cylindrical and tapered general use metal containers of up to 40 000 ml shall be as stated in Table 1.

Table 1 — Nominal filling volumes

Nominal filling volume in ml
75
100
125
150
200
250
375
500
750
1 000
1 500
2 000
2 500
3 000
4 000
5 000
10 000
12 500
15 000
17 500
20 000
22 500
25 000
30 000
40 000

3 Drainability

Drainability shall be measured using the method given in Annex B.

Annex A
(informative)

Recommended nominal diameters of round cylindrical and tapered general use metal containers of up to 40 000 ml

Recommended Nominal Diameters of Round Cylindrical and Tapered General use Metal Containers of up to 40 000 ml should be as stated in Table A.1. Those diameters in bold are strongly recommended. The diameters quoted are as defined in EN ISO 90-2 and the tolerances of ± 1 mm for diameters up to 153 mm and ± 2 mm for diameters larger than 153 mm are those permitted in calculating the nominal diameters. They are intended to cover different manufacturing methods rather than manufacturing process variability as shown in EN 10202 and EN 541.

Tolerance: ± 1 mm, diameters up to 153 mm

± 2 mm, diameters larger than 153 mm

Table A.1 — Recommended Nominal Diameters of Round Cylindrical and Tapered General use Metal Containers of up to 40 000 ml

Nominal Filling Volume - ml	Nominal Diameter Cylindrical mm	Nominal Diameter Tapered mm
75	52- **56-73-90**-79	----
100	52-56-**60**-65-**73-90**-79	----
125	52-56-**60**-65-**73**-79	----
150	**52-56-60-65-73-99-108**	----
200	**52-56-60-65-73-83-99-108**	----
250	52-56-**60**-65-**73-83-90**-95-**99**-108	----
375	**52-56-65-73-79-83-86-90**-95-**99-108**	----
500	**56**-65-**73-79-83-86-90**-95-**99-108**	----
750	**56**-73-**79-83-86-90-99-108**-113-**127**	----
1 000	**73-79-83-86-90-99-108**-113-**127**-130-**140**	**140**
1 500	**73-86-99-108**-113-**127**-130-**140-153**	----
2 000	**99-127**-130-**140-153-160-165-171-175**	**160-165-180**-198
2 500	**127**-130-**140-153-160**-163-**165**-168-**171-180**	**160-165**-168-**180**-190-198
3 000	**153-160**-163-**165**-168-**171-175-180**-190	**160-165-168-180**-190-198
4 000	**153-160**-163-**165-171-175-180**-190	**160-165**-168-**180-185-190**-198
5 000	**153-160-165-171-175-180**-185-190-215-**230**	**160-165-168**-180-**185-190**-198-**230-220-242**
10 000	215-**220**-225-**230**-240-260-**286-292**	**220-230**-240-**242**-274-**286**-292-305
12 500	**220-230**-242-260-**286-292**-300	220-**230**-240-**242-274-286**-292-305
15 000	**230**-260-**280-286-292**-300	**242-274-280-286-292-305**
17 500	**280-286-292**-300-305	**274**-280-**286-292-305**
20 000	**280-286-292**-300-**305**-315	**274-280-286-292-305**-315-**328**
22 500	**280-286-292**-300-**305**	**280-286-292-305-328**
25 000	**280-286-292**-300-**305**	**280-286-292-300-305-328**
30 000	280-**286-292**-300-**305**-315-328	**286-292-305**-315-**328**-375
40 000	**305**-328-355	292-**305-328**-375-380

Annex B
(normative)

Draining test methods for general use metal containers and drums

B.1 Principle

The absolute drainability and the relative drainability are obtained by determining the mass of water left as a residue in the general use containers or drums after drainage under gravity.

B.2 Apparatus

Weighing scale, with an accuracy adapted to the measurement.

B.3 Determination of drainability using the top section of the drum (procedure A)

Cut the top from the drum ensuring that sufficient side wall remains attached to the top to preclude distortion of the top during the cutting operation and retention of the specified volume of liquid, at the specified angle, during the test.

Fit designated closure(s) to the top and weigh. Record mass m_1 in grams.

Position the top section, top down, on a test rig so that it is held at the angle specified by the manufacturer (preferably 0º to 20º) with the designated closure opening at its lowest position.

Fill the top section with at least 5 % of the original drum volume.

When the water surface has settled, open the closure.

Allow the water to drain for 5 min without moving or shaking the top section, refit the closure and re-weigh the top section, still in the top down position, recording its mass, m_2, in grams.

B.4 Determination of drainability for general use containers and drums (procedure B)

Weigh the empty container including its closure(s) and record its mass, m_1, in grams.

Fill the container with a limited quantity of tap water, approximately 5 % of its volume. Close the drum.

Rotate or shake the container to ensure a wetting of all inner surfaces.

Open the container and place it in a horizontal position with the designated closure opening in its lowest position and leave until the liquid flow stops (position 1 as shown in Figure B.1).

Slowly incline the container up to the manufacturer's recommended angle which ensures the optimal draining (preferably 0° to 20°) and leave the container in this position for 5 min (position 2 as shown in Figure B.1), without moving or shaking the container.

Fit and secure the designated closure and remove any surplus water from the outside.