SLOVENSKI STANDARD
SIST EN 12709:2001

01-februar-2001

Plastiļ ni sodi - Okrogli sodi z nesnemljivim pokrovom (ozka odprtina) z nazivno prostornino od 20 do 120 l

Plastics drums - Non-removable head (tight head) circular cross-section drums with a nominal capacity of 20 l to 120 l

Kunststofffässer - Spundfässer mit kreisförmigem Querschnitt mit einem Nennvolumen von 20 l bis 120 l

Futs en matiere plastique - Futs à ouverture partielle d'une capacité nominale de 20 l a 120 l

Ta slovenski standard je istoveten z: EN 12709:2000

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EUROPEAN STANDARD
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English version

Plastics drums - Non-removable head (tight head) circular cross-section drums with a nominal capacity of 20 l to 120 l

Fûts en matière plastique - Fûts à ouverture partielle d'une capacité nominale de 20 l à 120 l

Kunststofffässer - Spundfässer mit kreisförmigem Querschnitt mit einem Nennvolumen von 20 l bis 120 l

This European Standard was approved by CEN on 6 November 1999.

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.

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

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Foreword

This European Standard 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of an identical text or by endorsement, at the latest by July 2000, and conflicting national standards shall be withdrawn at the latest by July 2000.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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

This standard is one of a series of standards on plastics drums of 20 l to 225 l and closures.

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 package.

1. Scope

This European Standard specifies the characteristics and dimensions of non-removable head (tight head) circular cross-section plastics drums with a nominal capacity of 20 l to 120 l.

2. Normative references

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.

EN 12708	Plug/bung closure systems for plastics containers with a nominal capacity of 20 l to 225 l.
prEN 12713:1997	Screw cap closure systems for plastics drums with a nominal capacity of 20 l to 60 l.
EN ISO 90-2:1999	Light gauge metal containers - Definitions and determination methods for dimensions and capacities - Part 2: General use containers (ISO 90-2:1997).

3. Terms and definitions

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

3.1
non-removable head (tight head) drum (TH)
flat-ended or convex-ended circular cross-section packaging with openings for filling and emptying in the head not exceeding 70 mm in diameter

3.2
nominal capacity (NC)
capacity in litres which, by convention, is used to represent a class of drums of similar brimful capacities

3.3
brimful capacity (BC)
volume of water in litres held by the drum when filled through the filling orifice to the point of overflowing

NOTE Annex A specifies the method for measuring brimful capacity.

3.4
total capacity (TC)
volume of water in litres held by the drum when filled completely, i.e. following the removal of any air trapped in the drum

NOTE Annex A specifies the method for measuring total capacity.

3.5
overall height - (h_o)
height of the finished drum from the base to the highest point (see Figure 1)

3.6
stacking height (h_s)
effective height of the drum in a stack, i.e. the height from the base of a drum to the base of a similar drum immediately above it in a stack (see Figure 1)

3.7
overall diameter (d_o)
maximum diameter of the drum (see Figure 1)

3.8
drum mass
mass of the empty drum including all closures

4. Requirements

4.1 Dimensions

The dimensions and tolerances of the drum shall be as listed in Tables 1 and 2 and as shown in Figure 1. The measurements shall be conducted at ambient conditions but shall not be made within 48 h of manufacture.

NOTE Apart from the dimensions specified, there are no restrictions on drum shape.

4.2 Drum mass

For drums with the nominal capacities specified, the mass tolerances shall be as indicated in Table 1.

Table 1 — Drum mass tolerances

Nominal capacity l	Mass tolerance %
20	±3
25	±3
30	±3
60	±3
120	±4

NOTE The defined mass should be agreed between the purchaser and the supplier.

4.3 Material identification symbol

The drums shall be permanently marked with the relevant material identification symbol, i.e. the symbol identifying the material from which the drum is made.

4.4 Closures

Plugs and closures shall be in accordance with EN 12708 or prEN 12713:1997. When fitted, the closures shall not protrude above the overall height of the drum.

NOTE For the purposes of transport and storage, the filled drum should be closed, using the appropriate tooling, to the manufacturer's recommended closure torque for each type of gasket.

4.5 Materials

The drum shall be manufactured either from high density polyethylene or another suitable plastics material appropriate to the physical and chemical requirements of its intended use.

4.6 Overall diameter (d_o)

The overall diameter shall be such as to optimize pallet utilization.

4.7 Handling

Provision for manual handling by attached or inset handles is optional up to and including 60 l.

NOTE Adaptations for mechanical handling may be added but if so their construction should be adequate for normal static and dynamic handling of filled drums.

4.8 Stacking

4.8.1 The drum shall be capable of being stacked with or without pallets, according to the manufacturer's recommendations.

4.8.2 The overall height (h_o) shall not exceed the stacking height (h_s) by more than 12 mm to ensure stack stability.

4.9 Draining

4.9.1 The drum shall be designed so as to minimize the residual volume of liquid left in the drum after drainage. The residue shall be not more than 0,2% of total capacity or 100 ml, whichever is the smaller when tested according to either **B.3** (procedure A) or **B.4** (procedure B).

4.9.2 The residue obtained when the drum is tested according to **B.4** (procedure B) is more dependent on the area and condition of the internal surface of the drum than procedure A and therefore may be in excess of that for procedure A.

NOTE The maximum permitted figure should be agreed between the purchaser and the supplier.

4.10 Finish

The external surface finish shall be suitable for the attachment of labels.

NOTE 1 The nature of the internal and external finish should be agreed between the purchaser and the supplier.

NOTE 2 The preferred colour option for the drum body is blue. The use of any other colour should be agreed between the purchaser and the supplier.

5. Designation

A non-removable head (tight head) circular cross-section drum (TH) manufactured in accordance with this Standard with a nominal capacity (NC) of 20 l to 120 l shall be designated:

Plastics drum TH EN 12709 NC - 20 l to120 l circular.

For example, a non-removable head (tight head) circular cross-section drum with a nominal capacity of 25 l would be designated:

Plastics drum TH EN 12709 NC-25 l circular

NOTE Where the drums are intended to be used for the transport of dangerous goods, attention is drawn to the regulatory requirements which govern the transport of those goods in the countries concerned. In Europe, depending upon the mode of transport, this means meeting the requirements of: