



SLOVENSKI STANDARD
oSIST prEN 15543:2024
01-januar-2024

Steklena embalaža - Grla za steklenice - Grla z navojem za steklenice za negazirane tekočine

Glass packaging - Finishes for bottles - Screw thread finishes for bottles for non-carbonated liquids

Verpackungen aus Glas - Flaschenverschlüsse - Schraubmundstücke für Flaschen für nicht kohlenensäurehaltige Flüssigkeiten

Emballages en verre - Bagues pour bouteilles - Bagues à vis pour bouteilles contenant des liquides non carbonatés

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oSIST prEN 15543:2024

ICS:

55.100 Steklenice. Lonci. Kozarci Bottles. Pots. Jars

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EUROPEAN STANDARD
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English Version

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This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 261.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (prEN 15543:2023) has been prepared by Technical Committee CEN/TC 261 “Packaging”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 15543:2008.

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prEN 15543:2023(E)

Introduction

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

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1 Scope

This document specifies the dimensions of a range of screw thread finishes known as “BVP” for the closure of bottles for beverages and other non-carbonated products, including the major sizes in use of standard and long skirt pilfer proof finishes.

NOTE This finish is not suitable for liquids that are stored horizontally.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions applies.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

BVP screw thread finish screw thread finish

finish designed to take a BVP type closure having a tamper-evident feature which breaks on first opening

Note 1 to entry: The finish is capped with a closure that might or might not have an extended (long) skirt to cover part of the neck of the bottle. The finish, with the appropriate bore control, might also be fitted with an in-bore insert to control the pour or refillability, as defined in the Cetie Datasheet GME 30.10.

4 Designation

The finish used can be defined successively by its name (BVP), the diameter (in mm), the category (H, Std, or EH) and the height of the closure (in mm).

EXAMPLES

BVP 31,5Std44

BVP 30H60

If a specification of internal diameter is needed (for pourer or insert), it is recommended to specify it in the designation. Example: BVP 30H60 / GME30.10

Note that the size and height denominations are approximations to nearest “whole number” values given in the specification. See Table 5.

5 Recommendations

All finishes should be free from cracks and defects that would adversely affect sealing performance.

Container verticality should be controlled as specified in Clause 11

During capping, when changing between different batches of bottles conforming to this document or different batches of caps, it is necessary to verify the setting of the capping equipment.

6 Categories and types of screw threads finishes and dimensions

6.1 Categories

The finishes belong to one of these 3 categories: Standard, Deep, or Extra Deep, which differ by the height of the cylindrical zone just below the thread (respectively 0 mm, around 7 mm, or 20,3 mm).

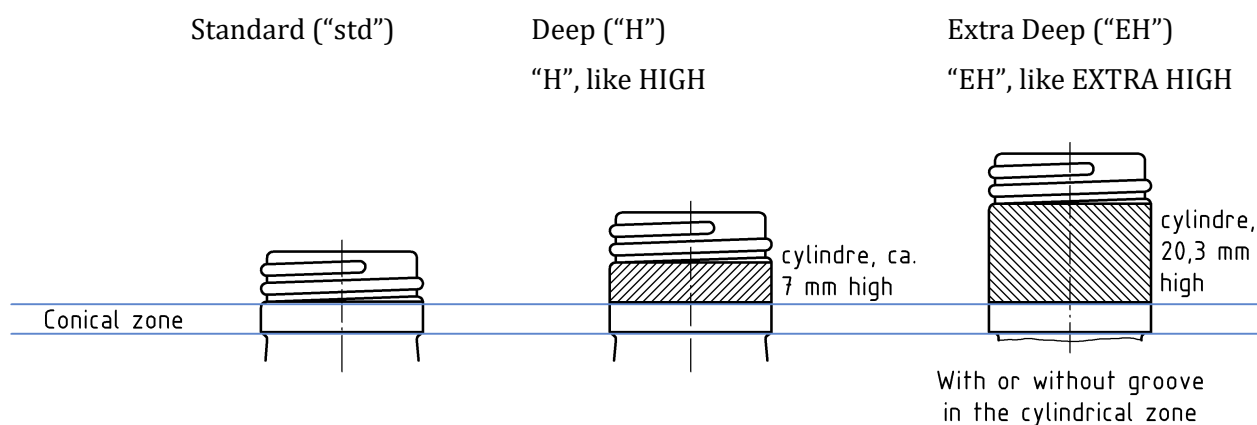


Figure 1 — Construction of the 3 categories

6.2 Types

Screw thread finishes shall conform to one of the following types:

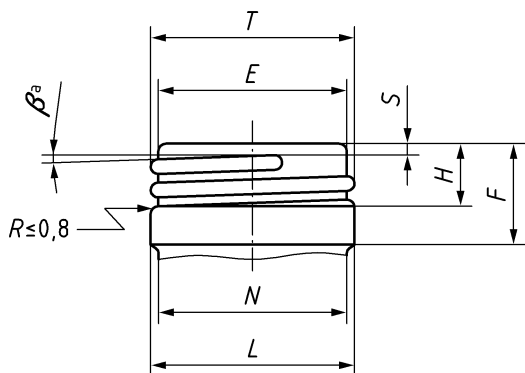
- type A: standard finish, as shown in Figure 2a) ;
- type B: standard finish with X and Y dimensions, as shown in Figure 2b), for use with a long skirt closure ;
- type C: deep finish, as shown in Figure 2c) ;
- type D: deep finish with X and Y dimensions, as shown in Figure 2d), for use with a long skirt closure ;
- type E: extra deep finish, as shown in Figure 2e) ;
- type F: standard finish with optional transition bead, as shown in Figure 3a) ;
- type G: deep finish with optional transition bead, as shown in Figure 3b) ;
- type H: optional deep finish, as shown in Figure 4, for closure with skirt covering the neck of the bottle with a support bead and X and Y dimensions.

The sizes and dimensions of type A, type B and type F screw thread finishes shall be as given in Table 1.

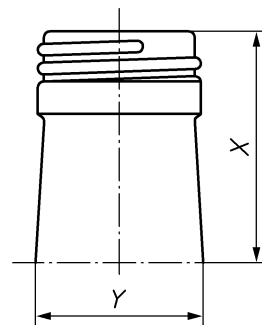
The sizes and dimensions of type C, type D, type E and type H screw thread finishes shall be as given in Table 2.

The dimensions of the optional transition bead for type F and type G screw-thread finishes shall be as given in Table 3.

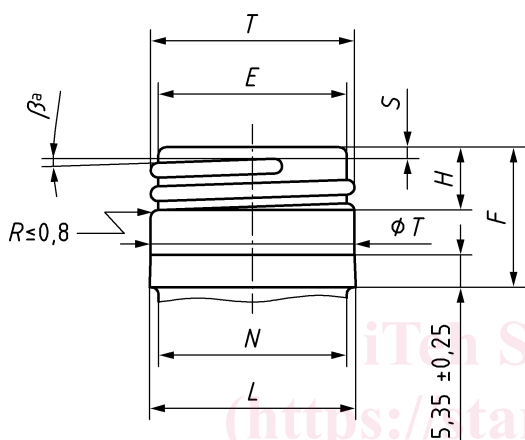
Dimensions in millimetres



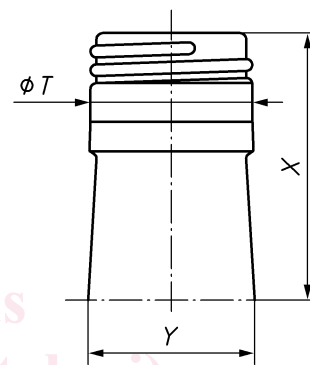
a) Type A: standard finish



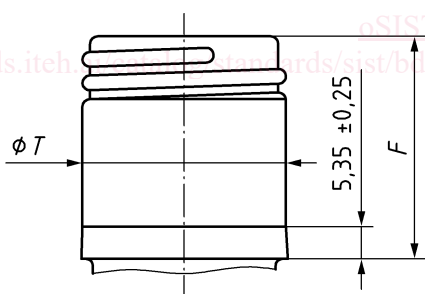
b) Type B: standard finish with X and Y dimensions



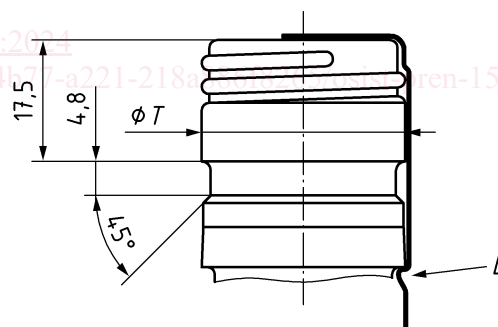
c) Type C: deep finish



d) Type D: deep finish with X and Y dimensions



e) Type E: extra deep finish



f) Type F: optional take out groove (non functional for capping)

Key

^a

β is the helix angle, or the angle of cutter index
$$\tan \beta = \frac{\text{Pitch}}{\pi(\text{nominal } T + \text{nominal } E)}$$

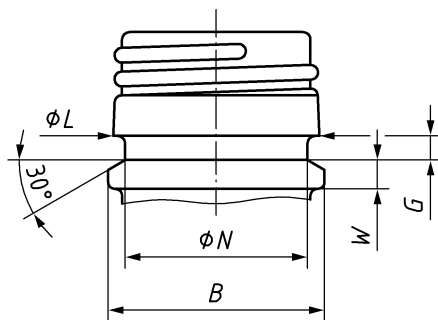
^b

The bold line shows the cap with its crimping groove

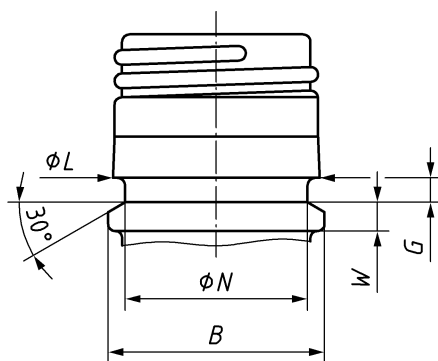
T

is the thread crest diameter, and is also the diameter of the cylindrical area

Figure 2 — Screw thread finishes, type A to E



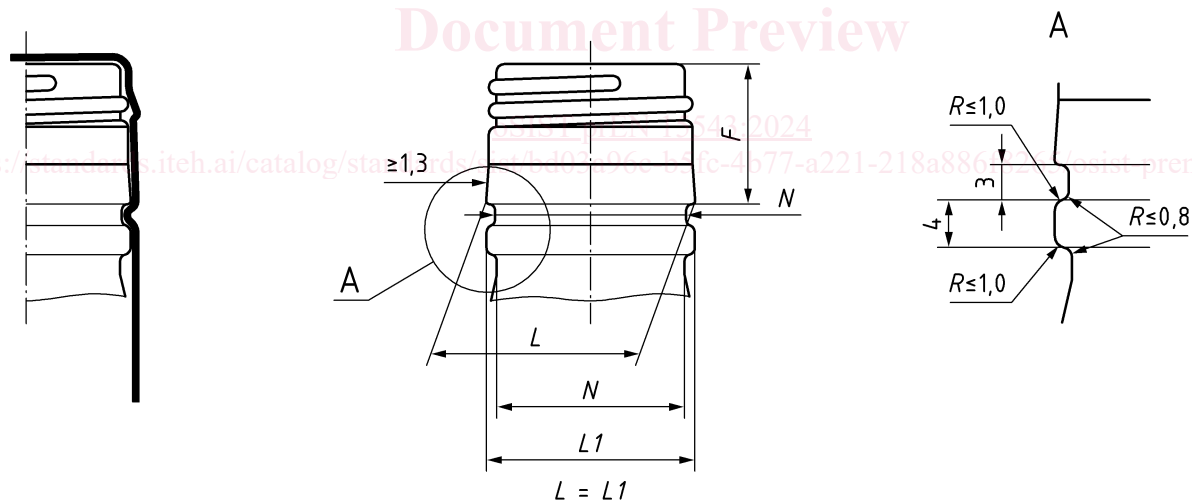
a) Type F: standard finish with optional transition bead



b) Type G: deep finish with optional transition bead

NOTE Dimensions are in Table 3, for B dimension see Figure 7.

Figure 3 — Screw thread finishes types F and G, with optional bead



Key

The bold line shows the cap with its crimping groove.

Figure 4 — Type H: optional deep finish with a support bead