



SLOVENSKI STANDARD

SIST EN 16565:2023

01-januar-2023

Nadomešča:
SIST EN 16565:2014

Embalaza - Prozne tube - Preskusna metoda za ugotavljanje orientacije zaskočnega pokrova

Packaging - Flexible tubes - Test method to determine the orientation of the flip-top cap

Verpackung - Tuben - Prüfverfahren zur Bestimmung der Ausrichtung des Klappdeckelverschlusses

Emballage - Tubes souples - Méthode d'essai pour la détermination de l'orientation de l'obturateur à charnière

Ta slovenski standard je istoveten z: EN 16565:2022

ICS:

55.120

Pločevinke. Tube

Cans. Tins. Tubes

SIST EN 16565:2023

en,fr,de

EUROPEAN STANDARD

EN 16565

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2022

ICS 55.120

Supersedes EN 16565:2014

English Version

Packaging - Flexible tubes - Test method to determine the orientation of the flip-top cap

Emballage - Tubes souples - Méthode d'essai pour la détermination de l'orientation de l'obturateur à charnière

Verpackung - Tuben - Prüfverfahren zur Bestimmung der Ausrichtung des Klappdeckelverschlusses

This European Standard was approved by CEN on 22 August 2022.

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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 (EN 16565:2022) 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of an identical text or by endorsement, at the latest by April 2023, and conflicting national standards shall be withdrawn at the latest by April 2023.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 16565:2014.

In comparison with the previous edition, the following technical modifications have been made:

- considered in Clause 1 Scope, cylindrical tubes;
- in Clause 5 Execution, correction of the conversion Formula (1);
- in Clause 6 Test Report, specification of the date of the publication of this document.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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

EN 16565:2022 (E)

1 Scope

This document specifies a method to test the orientation of the flip-top cap on flexible cylindrical tubes [1].

It is applicable to aluminium, plastic and laminated tubes used for packing pharmaceutical, cosmetic, hygiene, food and other domestic and industrial products.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

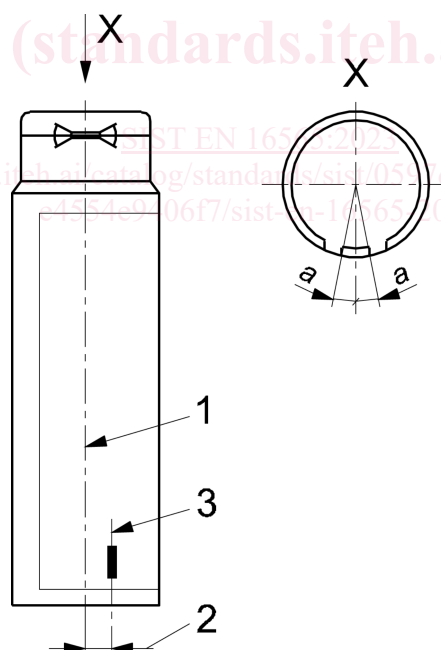
No terms and definitions are listed in this document.

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

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

4 Test principle and testing equipment

The test principle is described in Figure 1.



Key

- a** maximum deviation in mm/degree
- 1** axis of symmetry of cap hinge
- 2** deviation
- 3** axis of symmetry of back printed face

Figure 1 — Test principle

Any test equipment which is able to accurately measure the correct orientation of the flip-top cap can be used. An example for a suitable test device is given in Figure 2.

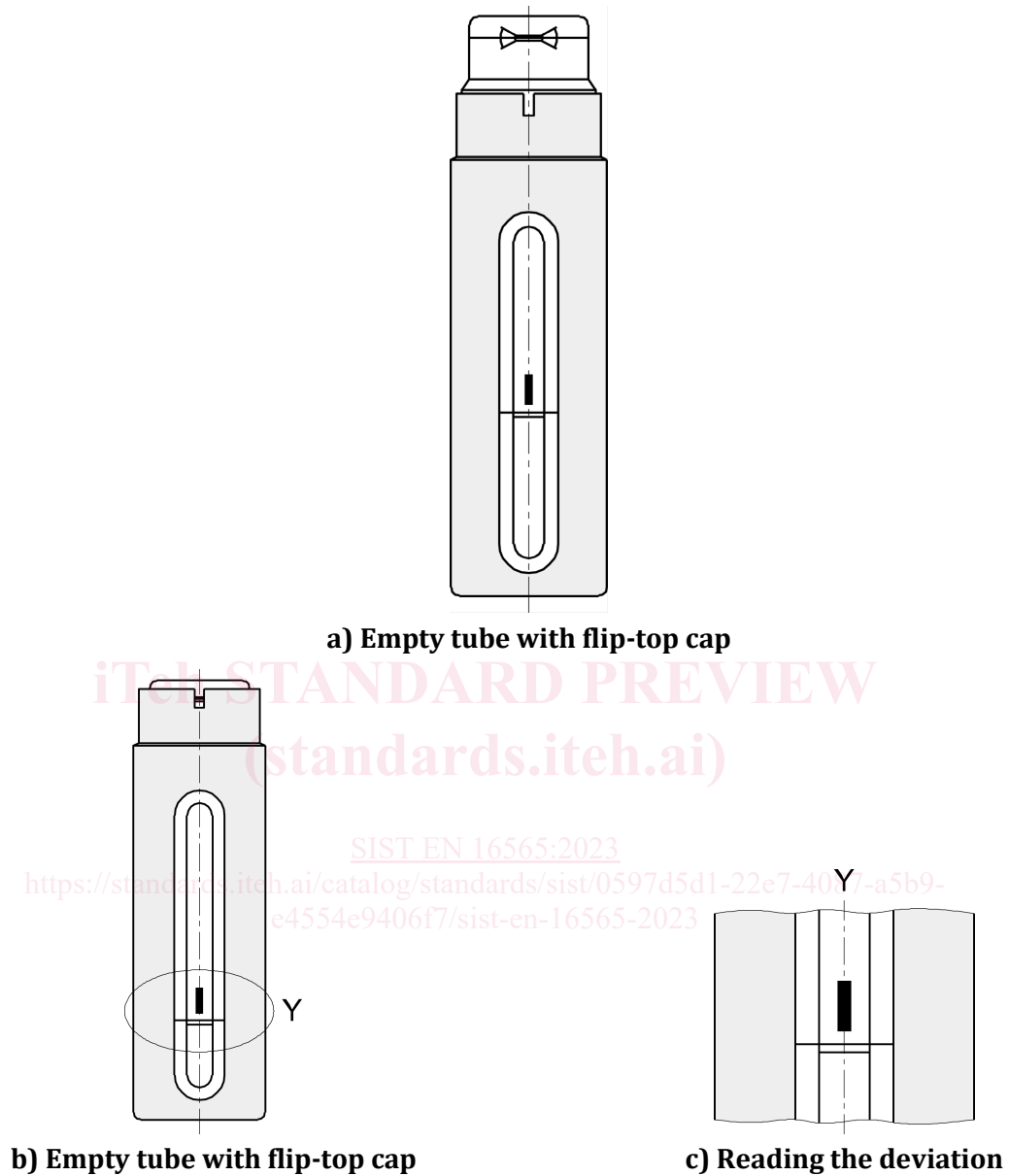


Figure 2 — Example for test device and measurement

5 Execution

Take samples of the finished product (empty tube including flip-top cap).

Measure the deviation with the test device.

Read the deviation.

The maximum deviation shall be within the limits given in Table 1.

Table 1 — Maximum deviation in mm and degree depending on tube diameter

Tube diameter D mm	Maximum deviation X \pm mm	Maximum deviation Y \pm °
19	3	18,1
22	3	15,6
25	3	13,8
28	3	12,3
30	3	11,5
32	3	10,7
35	3	9,8
38	4	12,1
40	4	11,5
45	4	10,2
50	6	13,8
56	6	12,3
60	6	11,5

Conversion Formula (1) for the maximum deviation (X) in degree versus maximum deviation (Y) in millimetres:

$$X = \frac{Y \times 360}{\pi \times D} \quad (1)$$

where

X is the maximum deviation value in degrees (°);

Y is the maximum deviation in millimetres (mm);

D is the tube diameter (mm);

π is 3,14.

6 Test report

The test report shall contain the following information:

- reference to this document (including publication date) and, if necessary, a specification for the method of sampling and acceptance of the batch;
- the identification of the batch and of the tubes checked;
- the date of production;
- the number of tubes checked;
- the number of defects;

- f) the test result;
- g) all factors which could have affected the results or all operating details not specified in this document;
- h) date, place of test and name of tester.

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Bibliography

- [1] EN 12374, *Packaging — Flexible tubes — Terminology*

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