

BS EN 16565:2014



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

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ISBN 978 0 580 81511 9

ICS 55.120

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 October 2014.

Amendments issued since publication

Date	Text affected
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EUROPEAN STANDARD

EN 16565

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2014

ICS 55.120

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

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Foreword

This document (EN 16565:2014) has been prepared by Technical Committee CEN/TC 261 "Packaging", the secretariat of which is held by AFNOR.

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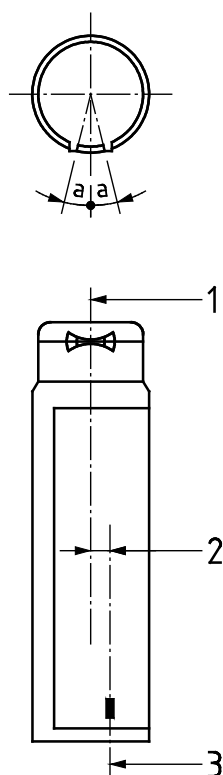
1 Scope

This European Standard specifies a method to test the orientation of the flip-top cap on flexible tubes.

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

2 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.

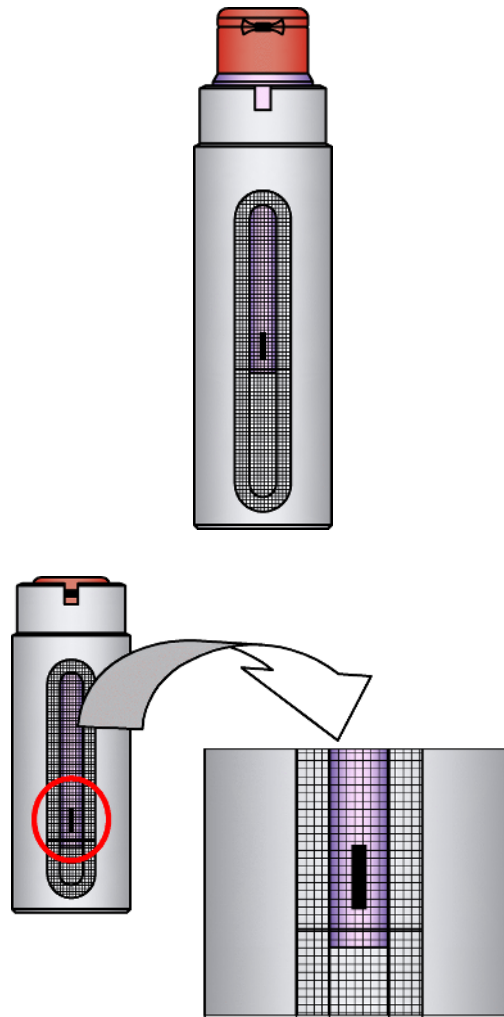


Figure 2 — Example for test device and measurement

3 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 stay within the limits given in Table 1.

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

Tube diameter (in mm)	Maximum deviation (in ± mm)	Maximum deviation (in ± degree)
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:

$$X = mm \times 360 / \pi \times D$$

X = value in degrees

mm = value in mm

D = tube diameter in mm

π = 3,14

4 Test report

The test report shall contain the following information:

- a) reference to this European Standard and, if necessary, a specification for the method of sampling and acceptance of the batch;
- b) the complete identification of the batch and of the tubes checked;
- c) the date of production;
- d) the number of tubes checked;
- e) 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 European Standard;
- h) date, place of test and name of tester.

Bibliography

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

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