SLOVENSKI STANDARD
SIST EN 12377:2000

01-april-2000

Embalaža - Upogibne tube - Preskusna metoda za nepredušnost zapork

Packaging - Flexible tubes - Test method for the air tightness of closures

Packmittel - Tuben - Prüfverfahren zur Bestimmung der Luftdichtheit der Verschlüsse

Emballage - Tubes souples - Méthode d'essai de l'étanchéité a l'air des bouchons d'obturation

Ta slovenski standard je istoveten z: **EN 12377:1998**

ICS:

55.120 Ploļ evinke. Tube Cans. Tins. Tubes

SIST EN 12377:2000 **en**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 12377

September 1998

ICS 55.120

Descriptors: packing, flexible packaging, plastic packaging, metal packaging, tubes, closing devices, stoppers, inspections, gas permeability

English version

Packaging - Flexible tubes - Test method for the airtightness of closures

Emballage - Tubes souples - Méthode d'essai de l'étanchéité à l'air des bouchons d'obturation

Packmittel - Tuben - Prüfverfahren zur Bestimmung der Luftdichtheit der Verschlüsse

This European Standard was approved by CEN on 4 September 1998.

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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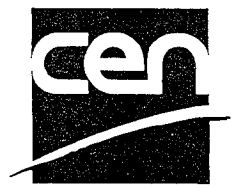


EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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 March 1999, and conflicting national standards shall be withdrawn at the latest by March 1999.

It is based on the professional recommendations of the European Tube Association (ETA).

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.

1 Scope

This standard specifies a test method for airtightness of the closures for flexible tubes.
It is applicable to flexible single-layer metal or plastics tubes and multilayer or laminated tubes used for packing pharmaceutical, cosmetic, hygiene, food and other domestic and industrial products.

2 Definitions

For the purposes of this standard, the definitions given in prEN 12374 apply.

3 Principle

The detection of air bubbles escaping from the cap, when the tube is held under water and subjected to an internal air pressure of 0,25 bar.

4 Apparatus

4.1 Air compressor with an initial minimum pressure of 2 bar, equipped with an air regulator allowing a constant and stable pressure of 0,25 ± 0,01 bar.

4.2 Manometer accurate to 0,01 bar.

4.3 Conical connector, adapted to the diameter of the tube, which allows the attachment of the open end of the tube to the compressed air source without leaks.

4.4 Transparent glass container of a size such as to allow the head of the tube to be immersed in water.

5 Procedure

The test shall be carried out on the capped tube at an ambient temperature of between 10°C and 25°C.

Attach the open end of the tube to the compressed air source with the conical connector (see figure 1).

Set the air regulator so as to maintain an air pressure of (0,25 ±0,01) bar inside the tube.

Immerse the head of the tube in the water ensuring that the cap is totally immersed for at least 3 s.

The tube is considered as defective if a continuous stream of bubbles is seen throughout the test period.

6 Test report

The test report shall contain the following information :

a) The reference to this standard and if necessary a specification for the method of sampling and the acceptance of the batch.

b) The complete identification of the batch and of the tubes tested.

c) The number of tubes tested.

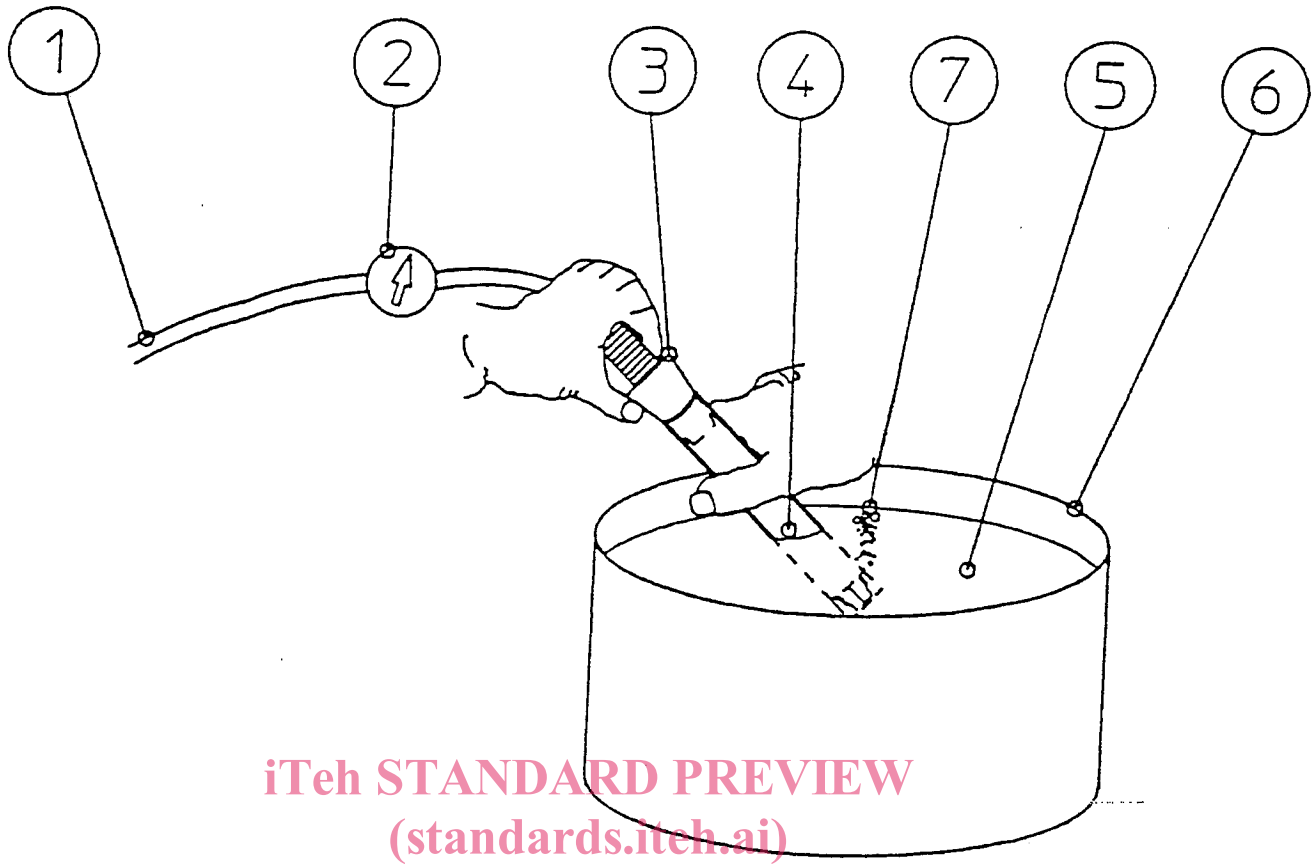
d) The number of defects.

e) If applicable, acceptance or refusal of the batch in accordance with specifications (see a)).

f) All factors which could have affected the results, or all operating details not specified in this standard.

g) Date of test.

h) Name of the tester.



1 - Compressed air line infeed

2 - Manometer gauge

3 - Conical applicator

4 - Tube under test

5 - Water

6 - Transparent glass container

7 - Air bubbles

Figure 1 : Diagram of the test device

7 Bibliography

prEN 12374 Packaging - Flexible tubes - Terminology