



BSI Standards Publication

# Packaging — Flexible aluminium tubes — Test method to measure the force to pierce the membrane

**National foreword**

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The UK participation in its preparation was entrusted to Technical Committee PKW/0/-/10, Packaging - Plastics.

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February 2013

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ICS 55.120

English Version

## Packaging - Flexible aluminium tubes - Test method to measure the force to pierce the membrane

Emballage - Tubes souples en aluminium - Méthode d'essai pour mesurer la force de percer la membrane

Packmittel - Aluminiumtuben - Prüfverfahren zur Messung der Kraft zur Durchdringung der Membran

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## Foreword

This document (EN 16283:2013) has been prepared by Technical Committee CEN/TC 261 "Packaging", the secretariat of which is held by AFNOR.

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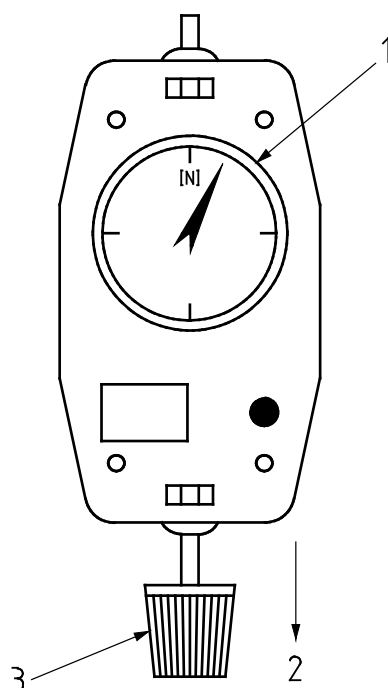
## 1 Scope

This European Standard specifies a method to test the membrane piercing of aluminium tubes.

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

## 2 Testing equipment

An example for a suitable test device is given in Figure 1.



### Key

- 1 force in N
- 2 compression
- 3 tube cap

Figure 1 — Test equipment

## 3 Execution

Take samples of the finished product (empty tube). Before zero setting of the instrument, apply the cap that is used for the final product on the threaded part of the instrument. Carry out the membrane piercing with the spike integrated in the cap, pressing the membrane until it is pierced. Record the value of the maximum force indicated on the instrument. The acceptable value shall not exceed 50 N.

A visual inspection shall be made to make sure that the piercing is complete and that no parts of the membrane went off during the piercing process.

#### 4 Test report

The test report shall contain the following information:

- a) reference to this 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 standard;
- h) date, place of test and name of tester.

## Bibliography

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





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