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Standard Recommendation  
S.R. CEN/TS 15945:2011

# Packaging - Ease of opening - Criteria and test methods for evaluating consumer packaging

## S.R. CEN/TS 15945:2011

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English Version

## Packaging - Ease of opening - Criteria and test methods for evaluating consumer packaging

Emballage - Facilité d'ouverture - Critères et méthodes  
d'essai pour évaluer un emballage destiné aux  
consommateurs

Verpackung - Leichtes Öffnen - Kriterien und Prüfverfahren  
für die Bewertung von Verbraucherpackungen

This Technical Specification (CEN/TS) was approved by CEN on 17 January 2011 for provisional application.

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## **Foreword**

This document (CEN/TS 15945:2011) has been prepared by Technical Committee CEN/TC 261 “Packaging”, the secretariat of which is held by AFNOR.

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

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification: 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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

## Introduction

Ease of opening is an important factor when designing consumer packaging, as it is important that consumers of all ages, and of both genders, should be able to access the contents of the package. Consumers may ultimately avoid the purchase of a particular type of packaging which has proved consistently to be difficult to open. It is recognised that there is a difference in strength on average between male and female consumers.

Knowing that strength in the hands reduces with age, a panel test method that focuses on elderly consumers, with less than the average hand strength, can help to gain a new perspective on the ease of opening of packaging. Packaging that is easy to open for elderly consumers will, in most cases, be easy for the average consumer to open. It is recognised that there will be consumers with extreme impairment that this specification cannot represent.

To present valid mechanical test methods for the wide range of packaging present on the market today is not possible in this specification at this time. A test protocol inspired by the principles described in the ISO 20282 series of standards is therefore used in Annex A. However, it should be noted that mechanical testing and sensory test by trained panel are useful tools when developing easy to open packaging or for quality control. We recommend the generation of mechanical data to allow the introduction of new methods, as a means of demonstrating compliance with this specification.

When appropriate; CEN-CENELEC Guide 6, "Guidelines for standards developers to address the needs of older persons and persons with disabilities" and the referenced documents were considered when drafting the specification.

This document specifies procedures for ease of opening. It should commensurate with the maintenance of:

- functionality throughout the supply and user chain;
- safety and hygiene for both product and user/consumer;
- acceptability of the packed product to the user/consumer.

The purpose of the test methods should be to evaluate whether a particular design of packaging can be considered easy to open by the large majority of consumers, including elderly consumers. The test methods may be used by, for example:

- a designer or manufacturer; to check whether ease of opening requirements have been met;
- a potential purchaser or consumers organisation to check whether a particular design of packaging meets their requirements regarding ease of opening;
- a manufacturer, potential purchaser or consumers organisation to compare alternative products.

The results can provide evidence of the ease of opening of a particular design of packaging to potential purchasers. A test may be carried out by the manufacturer or purchaser directly or by assigning the task to an appropriate test organisation.

Where the information derived from the test is used for any purpose other than for internal technical or product development, for example to make a public statement regarding packaging ease of opening in relation to this specification, testing should be carried out, or should be independently verified, by an accredited test organisation. The information should be provided in sufficient detail to allow replication of the data-scoring methods by another organization if the test is repeated.

## 1 Scope

This Technical Specification specifies the following for all adult consumers:

- criteria for ease of opening of packages;
- methods for evaluating the ease of opening of consumer packages.

The purpose of this Technical Specification is to specify test methods to evaluate the ease of opening of consumer packages, in order to improve easy access to the contents. For packages regulated for safety or similar reasons, e.g. packaging of dangerous goods and substances, medicinal products, and medical devices, those regulations take precedence.

This Technical Specification applies to all packaging that does not require an opening tool and to packaging that is purchased with an integrated opening tool.

NOTE 1 The method(s) described in this Technical Specification could also be applicable to other types of packages when measuring ease of opening.

NOTE 2 This Technical Specification can be used to test most consumer packages. There are, however certain packaging types that cannot easily be tested with the described methods, such as e.g. very large packaging used to protect refrigerators and washing machines.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 21067:2007, *Packaging — Vocabulary*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 21067:2007 and the following apply.

### 3.1

#### **consumer packaging**

packaging constituting, with its content, a sales unit for the final user or consumer at the point of retail

[ISO 21067:2007]

### 3.2

#### **ease of opening**

openability of a consumer packaging when used by the intended users to achieve the main goal(s) supported by the packaging

NOTE Ease of opening is tested as effectiveness of opening, efficiency of opening and satisfaction with opening.

### 3.3

#### **effectiveness of opening**

accuracy and completeness with which users achieve specified goals; percentage of users who achieve the main goal(s)

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