Candles - Specification for fire safety



## EESTI STANDARDI EESSÕNA

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Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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#### ICS 71.100.99

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## **EUROPEAN STANDARD**

## EN 15493

# NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

October 2019

ICS 71.100.99

Supersedes EN 15493:2007

#### **English Version**

## Candles - Specification for fire safety

Bougies - Spécification relative à la sécurité incendie

Kerzen - Spezifikation für die Feuersicherheit

This European Standard was approved by CEN on 9 September 2019.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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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 15493:2019) has been prepared by Technical Committee CEN/TC 369 "Candle fire safety", the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by April 2020, and conflicting national standards shall be withdrawn at the latest by April 2020.

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 15493:2007.

EN 15493:2019 includes the following significant technical changes with respect to EN 15493:2007:

- terms and definitions have been improved;
- a test method for self-extinguishing candles has been introduced;
- the requirement for the aftersmoke time has changed;
- the test procedure has been defined in more detail and the burn test cycles have been modified;
- an informative Annex A for the calculation of the hourly fuel consumption has been added;
- an informative Annex B for the analysis of container candle surface temperatures has been added.

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, Turkey and the United Kingdom.

#### Introduction

Candles have accompanied mankind for more than 2 000 years serving above all as a light source. Closely connected to the development history of the candle are the efforts made to improve its quality and its safety in use. Discussions in the past and present over possible self-forming, harmful emissions and fires caused by unsafe candles and/or inappropriate use during the burning of candles have led to consumer concern for these issues.

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ensure a
risk of fires, This document helps to ensure a reasonable degree of safety during use, thereby improving personal safety and reducing the risk of fires, deaths and injuries.

#### 1 Scope

This document specifies requirements and test methods for the fire safety of candles intended to be burned indoors.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN 15494:2019, Candles - Product safety labels

#### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

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

#### 3.1

#### aftersmoke time

time the wick continues to smoke visibly after extinguishing the flame

#### 3.2

#### base material

intended fuel source for a candle flame

[SOURCE: EN 15426:2018, 3.1]

#### 3.3

### burning period

time the candle burns from being lit initially until it is extinguished

#### 3.4

#### burn test cycle

total time of a burning period and pause

#### 3.5

#### candle

one or more combustible wicks supported by a material that constitutes a fuel, which is solid or semisolid at room temperature ((20 to 27) °C) with the main function of sustaining a light-producing flame, including any coatings on and articles or substances in the fuel

[SOURCE: EN 15426:2018, 3.2]

#### 3.6

#### container candle

candle that is produced and used in the same container

Note 1 to entry: This definition includes tea lights.

[SOURCE: EN 15426:2018, 3.3]