Furniture - Assessment of the ignitability of mattresses and upholstered bedbases - Part 1: Ignition source smouldering cigarette



# EESTI STANDARDI EESSÕNA

# NATIONAL FOREWORD

	This Estonian standard EVS-EN 597-1:2015 consists of the English text of the European standard EN 597-1:2015.		
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.		
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 23.12.2015.	Date of Availability of the European standard is 23.12.2015.		
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.		

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile <u>standardiosakond@evs.ee</u>.

### ICS 13.220.40, 97.140

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega: Aru 10, 10317 Tallinn, Eesti; koduleht <u>www.evs.ee</u>; telefon 605 5050; e-post <u>info@evs.ee</u>

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Aru 10, 10317 Tallinn, Estonia; homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 597-1

December 2015

ICS 13.220.40; 97.140

Supersedes EN 597-1:1994

# **English Version**

# Furniture - Assessment of the ignitability of mattresses and upholstered bed bases - Part 1: Ignition source smouldering cigarette

Ameublement - Évaluation de l'allumabilité des matelas et des sommiers rembourrés - Partie 1 : Source d'allumage : cigarette en combustion Möbel - Bewertung der Entzündbarkeit von Matratzen und gepolsterten Bettböden - Teil 1: Zündquelle: glimmende Zigarette

This European Standard was approved by CEN on 7 November 2015.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Con	itents	Page
Euro	ppean foreword	3
Introduction		4
1	Scope	5
2	Terms and definitions	5
3	Criteria of ignition	
3.1 3.2	Progressive smouldering ignitionFlaming ignition	
4	Principle	6
5	Health and safety of operators	
5.1 5.2	General Enclosure	
5.2 5.3	Extinguishers	_
6	Apparatus	
6.1 6.2	Test rig	
6.2 6.3	Test enclosure	
6.4	Ignition source smouldering cigarette	_
7	Atmospheres for conditioning and testing	8
7.1	Conditioning	
7.2	Atmosphere for testing	
8	Test specimen	
8.1	General	_
8.2 8.3	Small scaleFull size	
9	Test procedure	
9.1	Preparation	
9.2 9.3	Ignition source applicationFinal examination	
10	Test report	
Anne	ex A (informative) Model test report form	11

# **European foreword**

This document (EN 597-1:2015) has been prepared by Technical Committee CEN/TC 207 "Furniture", the secretariat of which is held by UNI.

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 June 2016 and conflicting national standards shall be withdrawn at the latest by June 2016.

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.

This document supersedes EN 597-1:1994.

The test is based on EN 1021-1, Furniture – Assessment of the ignitability of upholstered furniture – Part 1: Ignition source: smouldering cigarette.

The main changes in relation to EN 597-1:1994 are:

- modification to the specification of the weight of the ignition source;
- modification to the test procedure to allow a third ignition source to be placed on the test sample if either of the two initial ignition sources self extinguish prior to the completion of the test.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

# Introduction

This European Standard is one of a series of standards concerned with the ignitability of mattresses and upholstered bed bases using different ignition sources. The ignition source used in this European Standard is a smouldering cigarette.

When mattresses or bed bases are used or stored on their own, it is desirable to know their ignitability in their own right.

It cannot be assumed that protection against flaming sources will automatically give protection against smouldering ignition. Users of the standard should therefore recognize the need to submit test specimens to both cigarette and flaming ignition tests.

to, he full WARNING — Attention is drawn to the fact that the tests given in the test report (see Clause 10) are not intended to reproduce the full fire hazards that may be encountered.

# 1 Scope

This European Standard specifies a test method to assess the ignitability of mattresses, upholstered bed bases or mattress pads when subjected to a smouldering cigarette as an ignition source.

Air mattresses and water beds are excluded from this standard.

The standard contains one annex:

Annex A (informative) Model test report form.

# 2 Terms and definitions

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

#### 2.1

#### progressive smouldering

exothermic oxidation, not accompanied by flaming, that is self-propagating, i.e. independent of the ignition source, which may or may not be accompanied by incandescence

#### 2.2

#### flaming

undergoing combustion in the gaseous phase with the emission of light

#### 2.3

#### flammability

ability of a material or product to burn with a flame under the specified test conditions

#### 2.4

#### ignitability

measure of the ease with which a material, product or component can be ignited so as to flame or progressively smoulder

#### 2.5

#### ignition source

source of energy used to ignite combustible materials or products

#### 2.6

## mattress pad

upholstered product that is used in conjunction with, and to complement, a mattress or upholstered bed base

#### 2.7

#### mattress

upholstered product intended for sleeping upon

#### 2.8

#### bed base

structure that supports a mattress or the surface(s) of a mattress that support(s) a user

#### 2.9

#### upper surface

surface of a bed base that supports a mattress or the surface(s) of a mattress that support(s) a user