Fire classification of construction products and building elements - Part 3: Classification using data from fire resistance tests on products and elements used in building service installations: fire resisting ducts and fire dampers

Fire classification of construction products and building elements - Part 3: Classification using data from fire resistance tests on products and elements used in building service installations: fire resisting ducts and fire dampers



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 13501-
3:2006 sisaldab Euroopa standardi EN
13501-3:2005 ingliskeelset teksti.

Käesolev dokument on jõustatud 27.02.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 13501-3:2006 consists of the English text of the European standard EN 13501-3:2005.

This document is endorsed on 27.02.2006 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

Käsitlusala:

This European Standard specifies the procedure for classification of the resistance to fire performance of construction products and building elements used as components of building service installations, using data from fire resistance tests which are within the direct field of application of the relevant test method.

Scope:

This European Standard specifies the procedure for classification of the resistance to fire performance of construction products and building elements used as components of building service installations, using data from fire resistance tests which are within the direct field of application of the relevant test method.

ICS 13.220.50

Võtmesõnad: classifi, classifications, fire, fire tests, fire-resistant time, fire-test classifications, flame propagation, performance tests, permissible, requirements, structural fire protection, surface spread of flame, test results, testing, time of flame influence, types

EUROPEAN STANDARD NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 13501-3

December 2005

ICS 13.220.50

English Version

Fire classification of construction products and building elements
- Part 3: Classification using data from fire resistance tests on
products and elements used in building service installations: fire
resisting ducts and fire dampers

Classement au feu des produits et éléments de bâtiment -Classement utilisant des données d'essais de résistance au feu de composants d'installations de services de ventilation - Partie 3 : Conduits et clapets résistants au feu

Klassifizierung von Bauprodukten und Bauarten zu ihrem Brandverhalten - Teil 3: Klassifiezierung mit den Ergebnissen aus den Feuerwiderstandsprüfungen an Bauteilen von haustechnischen Anlagen: feuerfeste Leitungen und Brandschutzklappen

This European Standard was approved by CEN on 22 September 2005.

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.

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



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Cont	ents	Page	
Forowa	ord	•	
	iction		
1	Scope	5	
2	Normative references	5	
3	Terms and definitions	5	
4 4.1 4.2	Fire scenariosGeneral	ē	
5 5.1 5.1.1 5.1.2 5.1.3 5.1.4	Resistance to fire performance characteristics Performance characteristics Introduction E – Integrity I – Insulation S – Smoke leakage	<u>7</u> <u>7</u> 7	
6 6.1 6.2 6.3 6.4 6.5 6.6	Declaration of fire resistance performance	8 8 8	
7 7.1 7.1.1 7.1.2 7.2 7.2.1 7.2.2 7.2.3	Classification procedure for fire resistance	9 9 10 10	
A.1 A.2	A (normative) Classification report	15 15	
9	-r-,		

Foreword

This European Standard (EN 13501-3:2005) has been prepared by Technical Committee CEN/TC 127 "Fire safety in buildings", the secretariat of which is held by BSI.

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 2006, and conflicting national standards shall be withdrawn at the latest by June 2006.

This European Standard has been prepared under a Mandate given to CEN by the Commission of the European Communities and the European Free Trade Association, and supports essential requirements of the Construction Products Directive.

CEN, CENELEC and EOTA committees preparing technical specifications which contain performance requirements against fire resistance tests should make reference to the fire resistance classification given in this European Standard and not refer directly to any specific fire test method.

EN 13501 consists of the following parts:

- Part 1: Classification using data from reaction to fire tests,
- Part 2: Classification using data from fire resistance tests, excluding ventilation services,
- Part 3: Classification using data from fire resistance tests on products and elements used in building service installations: fire resisting ducts and fire dampers,
- Part 4: Classification using data from fire resistance tests on components of smoke control systems,
- Part 5: Classification using data from external fire exposure to roofs tests.

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

Introduction

The aim of this European Standard is to define a harmonised procedure for the classification for resistance to fire of construction products and elements. This classification is based on the test procedures listed in Clause 2.

This European Standard is prepared in support of the second essential requirement in the EC Construction Products Directive (89/106/CEC), which is detailed in the Interpretative Document number 2 (ID2): Safety in case of fire (OJ C62 Vol 37). It reflects the Commission Decision of 3 May 2000 on the implementation of the Council Directive 89/106/EEC as regards the classification of the resistance to fire performance of construction products, construction works and parts thereof.

The Interpretative Document and the Commission Decision of 3 May 2000 specify performance and classes regarding fire resistance. These classes are identified by designation letters, each of which refers to an important characteristic of fire resistance behaviour.

buildin sults for in This European Standard provides for a common understanding for these requirements. It interprets the functional requirements for the different groups of building products and elements and explains the method for deriving their classification on the basis of test results for individual products or elements.

1 Scope

This European Standard specifies the procedure for classification of the resistance to fire performance of construction products and building elements used as components of building service installations, using data from fire resistance tests which are within the direct field of application of the relevant test method. Classification on the basis of extended application is outside the scope of this European Standard. For extended applications, however, the same classes need to be used as specified in this European Standard.

Products/elements for use in ventilation systems include (excluding smoke and heat exhaust ventilation):

- fire resisting ducts;
- fire dampers.

Relevant test methods which have been prepared for these products/elements are listed in Clause 2.

2 Normative references

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

EN 1366-1:1999, Fire resistance tests for service installations — Part 1: Ducts

EN 1366-2:1999, Fire resistance tests for service installations — Part 2: Fire dampers

EN ISO 13943:2000, Fire safety — Vocabulary (ISO 13943:1999)

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN ISO 13943:2000, and the following apply.

3.1

direct field of application

the outcome of a process (involving the application of defined rules) whereby a test result is deemed to be equally valid for variations in one or more of the product properties and/or intended end use applications

3.2

extended field of application

the outcome of a process (involving the application of defined rules that may incorporate calculation procedures) that predicts, for a variation of a product property and/or its intended end use application(s), a test result on the basis of one or more test results to the same test standard

3.3

test specimen

element (or part) of building construction provided for the purpose of determining either its fire resistance or its contribution to the fire resistance of another building element

[EN 1363-1:1999]

NOTE For the purposes of this European Standard this definition refers to a specific component of a service installation.