

Kindlad säilitusüksused. Liigitus ja tulekindluse katsemeetodid. Osa 1: Dokumendiseifid

Secure storage units - Classification and methods of test for resistance to fire - Part 1: Data cabinets and diskette inserts

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1047-1:2005 sisaldab Euroopa standardi EN 1047-1:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 25.11.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1047-1:2005 consists of the English text of the European standard EN 1047-1:2005.</p> <p>This document is endorsed on 25.11.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
--	---

<p>Käsitlusala: See Euroopa standard määrab kindlaks tulekindlatele seifidele esitatavad nõuded. Standardis on kirjeldatud kahte katsemeetodit, mille abil määratakse tulekindlate seifide võimet kaitsta oma temperatuuri- ja niiskustundlikku sisu tule mõju eest: tulekindluskatse ja tulest põhjustatud lööklaine katse.</p>	<p>Scope: This part of this European Standard specifies requirements for fire resisting data cabinets and diskette inserts. Two methods of test are specified to determine the ability of fire resisting data cabinets to protect temperature and humidity sensitive contents from the effects of fire: a fire endurance test and a fire shock and impact test.</p>
---	--

ICS 13.220.40, 13.310, 35.020

Võtmesõnad: andmekandjad, diskett, liigitus, märgistus, ohutusklass, tulekindluskatse, tuleohutus, tulest põhjustatud lööklaine katse

English Version

Secure storage units - Classification and methods of test for resistance to fire - Part 1: Data cabinets and diskette inserts

Unités de stockage en lieu sûr - Classification et méthodes d'essais de résistance au feu - Partie 1: Meubles ignifuges et containers pour supports sensibles

Wertbehältnisse - Klassifizierung und Methoden zur Prüfung des Widerstandes gegen Brand - Teil 1: Datensicherungsschränke und Disketteneinsätze

This European Standard was approved by CEN on 26 August 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

Contents

Foreword	3
Introduction.....	4
1 Scope	5
2 Normative references	5
3 Terms and definitions.....	6
4 Requirements, classification and locking.....	6
5 Test specimens, documents and correlation.....	7
5.1 Test specimens	7
5.2 Technical documentation of the test specimen.....	8
5.3 Correlation of test specimen and technical documentation.....	8
6 Test methods.....	8
6.1 Principle.....	8
6.2 Test equipment	9
6.3 Preparation for test	10
6.4 Procedure	13
7 Expression of results.....	18
8 Test report	19
9 Marking	19
Annex A (informative) Examples of specimen preparation for the fire shock and impact test.....	21
Annex B (informative) Example illustrating the requirements for data inserts.....	23

Foreword

This European Standard (EN 1047-1:2005) has been prepared by Technical Committee CEN/TC 263 "Secure storage of cash, valuables and data media", 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 April 2006, and conflicting national standards shall be withdrawn at the latest by April 2006.

This document supersedes EN 1047-1:1996.

Part 2 of this standard has been published under the following title:

EN 1047-2 Secure storage units
 Classification and methods of test for resistance to fire
 Part 2: Data rooms and data containers

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 testing conditions given in this European Standard provide a basis for simulating fires to determine, in a reproducible way, the fire resistance of data cabinets and diskette inserts in various protection classes. The protection classes enable a comparison to be made of the resistance against fire provided by different constructions.

The threshold values for the maximum temperature increases in the protection classes S 60 P/S 120 P (150 K), S 60 D/S 120 D (50 K) and S 60 DIS/S 120 DIS (30 K) for data cabinets as well as DI 60 P/DIS (30 K) and DI 120 P/DIS (30 K) for diskette inserts from a starting temperature of $(21 \pm 1) ^\circ\text{C}$, and for the maximum relative humidity (85 %) for the D and DIS protection classes, as defined in this European Standard, refer to the relatively short-term stress due to high temperatures during a fire test. They are not normally experienced by data media stored in data cabinets and diskette inserts in the normal and correct way.

1 Scope

This part of this European Standard specifies requirements for fire resisting data cabinets and diskette inserts.

Two methods of test are specified to determine the ability of fire resisting data cabinets to protect temperature and humidity sensitive contents from the effects of fire: a fire endurance test and a fire shock and impact test. Two levels of fire severity (S 60 and S 120) based upon time of fire exposure; and three protection classes (P, D and DIS) are specified using the maximum temperature increases and humidity values permitted within the storage space of the data cabinet.

Diskette inserts (DI 60 P/DIS and DI 120 P/DIS) are installed in data cabinets of protection class S 60 P or S 120 P, respectively, and subjected to a fire endurance test (see 5.1.2).

Requirements are also specified for test specimens, the technical documentation for the test specimen, correlation of the test specimen with the technical documentation, preparation for type testing and test procedures.

A scheme to classify the fire resisting data cabinets and diskette inserts from the test results is also given (see Table 1).

Cabinets having the same design, protection and construction features (type and thickness of construction and protective materials, rebate geometry, locking, etc.) will only give the same fire protection classification as that of a test specimen if they are of similar internal dimensions. The maximum difference in internal dimensions (height, width and depth of the storage space, measured from wall to wall) to which the test classification could apply is $\pm 15\%$. Cabinets having internal dimensions which differ by more than this amount from that of the tested specimen should be submitted to an extra test.

The wall, ceiling and door thicknesses should not be below the specified minimum limit of the type-tested thickness by more than 3 %.

Diskette inserts should only be installed in data cabinets having the same design as the series of protection class S 60 P and S 120 P, respectively, in which the insert has been tested in accordance with 5.1.2. Where several inserts are installed, they should be built in one beside the other or one above the other from bottom to top, respectively. The volume and total height of the installed inserts should not exceed 50 % of the total internal volume or 50 % of the internal height, respectively, of the data cabinets into which they are installed. The dimensions of the insert can be adapted by increasing the width and depth to the corresponding dimensions of the data cabinets. A reduction of these dimensions as well as a change of the height is only admitted within the specified tolerance.

The temperature increases during type-tests on data cabinets and diskette inserts will be considered in deciding the permitted diskette insert installations. For a permitted installation, the temperature increase of the intended data cabinet (ΔT_a K) should not exceed the temperature increase of the tested data cabinet (ΔT_b K) in which the diskette insert has been type-tested by more than the difference between the maximum value for the diskette insert (ΔT_i K) and the maximum admissible temperature increase (30 K), i.e: $\Delta T_a - \Delta T_b \leq 30 \text{ K} - \Delta T_i$ (See example in Annex B).

A description of the installation of the diskette inserts should be given in the technical documentation of the manufacturer.

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.

EN 1363-1:1999, *Fire resistance tests – Part 1: General requirements*

EN 60584-1 *Thermocouples – Part 1: Reference tables (IEC 60584-1:1995)*

EN 61515 *Mineral insulated thermocouple cables and thermocouples (IEC 61515:1995)*

3 Terms and definitions

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

3.1

data cabinet

cabinet designed to protect media and valuables against the effects of fire

NOTE A data cabinet can have doors, drawers, lids, connections and fittings.

3.2

diskette insert

insert which is installed in a data cabinet of protection class S 60 P or S 120 P, respectively

3.3

media

material holding data including paper documents, magnetic tapes, films, diskettes, cassettes, optical disks and video and audio cassettes

3.4

compartment

part of a data cabinet which is closed with a separate door, lid or cover

NOTE A compartment formed by inserting a shelf board is not a compartment within the meaning of this standard.

4 Requirements, classification and locking

4.1 Data cabinets and diskette inserts shall provide protection against the effects of fire (see Clause 6) and be classified as specified in Table 1.