

**Kaablite ühtsed tulekatsetusmeetodid.
Määratletud tingimustes põlevate
kaablite suitsutiheduse mõõtmine. Osa
1: Seadmestik**

Common test methods for cables under fire
conditions - Measurement of smoke density of
cables burning under defined conditions - Part 1:
Apparatus

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 50268-1:2001 sisaldab Euroopa standardi EN 50268-1:1999 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 19.06.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 50268-1:2001 consists of the English text of the European standard EN 50268-1:1999.</p> <p>This document is endorsed on 19.06.2001 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>
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<p>Käsitlusala: EN 50268 Specifies a method of test for measurement of smoke density of cables burning under defined conditions. It is suitable for electric insulated conductor or cable, or optical cables. This Part 1 details the apparatus. The procedure together with an informative Annex of recommended requirements for compliance is given in Part 2. NOTE: Experience has shown that the test protocol is not suitable for some cables that exceed 70 mm overall diameter. In such cases the manufacturer should be consulted.</p>	<p>Scope: EN 50268 Specifies a method of test for measurement of smoke density of cables burning under defined conditions. It is suitable for electric insulated conductor or cable, or optical cables. This Part 1 details the apparatus. The procedure together with an informative Annex of recommended requirements for compliance is given in Part 2. NOTE: Experience has shown that the test protocol is not suitable for some cables that exceed 70 mm overall diameter. In such cases the manufacturer should be consulted.</p>
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Võtmesõnad: calibration, combustion products, electric cables, fire protection, flammability test, test apparatus, test methods

English version

**Common test methods for cables under fire conditions - Measurement of
smoke density of cables burning under defined conditions
Part 1: Apparatus**

Méthodes d'essai communes aux
câbles soumis au feu
Mesure de la densité de fumées
dégagées par des câbles brûlant
dans des conditions définies
Partie 1: Appareillage

Allgemeine Prüfverfahren für das
Verhalten von Kabeln und isolierten
Leitungen im Brandfall - Messung der
Rauchdichte von Kabeln und isolierten
Leitungen beim Brennen unter
definierten Bedingungen
Teil 1: Prüfeinrichtung

This European Standard was approved by CENELEC on 1999-04-01. CENELEC 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 CENELEC 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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
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Foreword

This European Standard was prepared by the Technical Committee CENELEC TC20 'Electric Cables', and agreed at its Dublin meeting (April 1997).

The text of the draft was submitted to the Unique Acceptance Procedure and approved by CENELEC as EN 50268-1 on 1999-04-01.

This European Standard supersedes HD 606.1 S1:1992

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2000-04-01
- latest date by which national standards conflicting
with the EN have to be withdrawn (dow) 2001-04-01

Annexes designated 'informative' are given for information only. In this standard Annexes A and B are informative.

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1 Scope

EN 50268 specifies a method of test for measurement of smoke density of cables burning under defined conditions. It is suitable for electric insulated conductor or cable, or optical cables. This Part 1 details the apparatus. The procedure, together with an Informative Annex of recommended requirements for compliance, is given in Part 2.

NOTE Experience has shown that the test protocol is not suitable for some cables that exceed 70 mm overall diameter. In such cases the manufacturer should be consulted.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 60695-4: Fire hazard testing – Part 4: Terminology concerning fire tests.

NOTE IEC 60695 is in the course of re-numbering its Parts and Sections. This will also affect the equivalent ENs.

3 Definitions

For the purposes of this Part 1 of EN 50268 the definitions in EN 60695-4 apply.

4 Details of test enclosure

The equipment shall comprise a cubic enclosure with inside dimensions of $3\,000\text{ mm} \pm 30\text{ mm}$ and constructed of a suitable material fixed on to a steel angle frame. One side shall have a door, with a glass inspection window. Transparent sealed windows (minimum size $100\text{ mm} \times 100\text{ mm}$) shall be provided on two opposite sides to permit the transmission of a beam of light from the horizontal photometric system. The distance from the floor to the centre of these windows shall be $2\,150\text{ mm} \pm 100\text{ mm}$ (see Figure 1 for plan view).

The walls of the enclosure shall include orifices at ground level, i.e. not greater than 100 mm above the level of the chamber floor, for the passage of cables etc., and to permit the enclosure to be at atmospheric pressure. No orifice shall be directly behind the fire source or on the same wall. A minimum of two orifices shall be provided and the total area of the orifices open during the test shall be $50\text{ cm}^2 \pm 10\text{ cm}^2$. The ambient temperature outside the enclosure shall be $20^\circ\text{C} \pm 10^\circ\text{C}$ and the enclosure shall not be directly exposed to sunlight or extreme climatic changes.

NOTE It should normally be possible to extract fumes from the enclosure after each test through a duct complete with valve which should be closed during the test. The duct may include a fan to increase the rate of extraction. It is recommended that the door of the enclosure be opened to assist the extraction process.

A draught screen, 1 500 mm long and 1 000 mm high, shall be placed in the enclosure, at the position shown in Figure 1. It shall abut the back wall at a point 750 mm from the side wall, and shall be curved to intersect the centre line of the enclosure at a point 1 400 mm from the back wall.

5 Photometric system

5.1 The photometric system is illustrated in Figure 2. The light source and the receiver shall be placed externally in the centre of both windows in the two opposite walls of the cube without making physical contact. The light beam shall traverse the cube through the glass windows in the side walls.