



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 50267-2-3:1999

ICS 13.220.40  
29 060.20

**COMMON TEST METHODS FOR CABLES  
UNDER FIRE CONDITIONS TESTS ON GASES  
EVOLVED DURING COMBUSTION OF  
MATERIALS FROM CABLES  
PART 2-3: PROCEDURES - DETERMINATION  
OF DEGREE OF ACIDITY OF GASES FOR  
CABLES BY DETERMINATION OF THE  
WEIGHTED AVERAGE OF PH AND  
CONDUCTIVITY**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 50267-2-3**

June 1998

ICS 13.220.40; 29.060.20

Partly supersedes HD 602 S1:1992

Descriptors: Electrical installation, electric cables, fire tests, combustion tests, combustion products, burning gases, corrosive gases, determination, acidity, measurements, pH, conductivity, testing conditions, procedure

English version

**Common test methods for cables under fire conditions**  
**Tests on gases evolved during combustion of materials from cables**  
**Part 2-3: Procedures - Determination of degree of acidity of gases for**  
**cables by determination of the weighted average of pH and conductivity**

Méthodes d'essai communes aux câbles soumis au feu - Essais sur les gaz émis lors de la combustion d'un matériau prélevé sur un câble  
Partie 2-3: Procédures - Détermination de l'acidité des gaz des câbles par une mesure de la moyenne pondérée du pH et de la conductivité

Allgemeine Prüfverfahren für das Verhalten von Kabeln und isolierten Leitungen im Brandfall - Prüfung der bei der Verbrennung der Werkstoffe von Kabeln und isolierten Leitungen entstehenden Gase  
Teil 2-3: Prüfverfahren - Bestimmung des Grades der Azidität der wesentlichen Werkstoffe von Kabeln durch die Bestimmung eines gewichteten Mittelwertes von pH-Wert und Leitfähigkeit

This European Standard was approved by CENELEC on 1998-04-01. 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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European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

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## FOREWORD

This European Standard was prepared by the Technical Committee CENELEC TC20, Electric Cables.

When used in conjunction with EN 50267-1, this European Standard supersedes HD 602 S1:1992.

Significant technical differences are:

- (a) limits for water quality are introduced
- (b) requirements are given in an informative annex, as recommendations only.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50267-2-3 on 1998-04-01.

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) 1999-03-01
- latest date by which national standards conflicting  
with the EN have to be withdrawn (dow) 2000-03-01

Annexes designated "normative" are part of the body of the standard. Annexes designated "informative" are given for information only. In this standard annex A is informative. There is no normative annex.

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1. **Scope**

EN 50267-2-3 specifies the test method and procedure for the determination of the degree of acidity of gases evolved during the combustion of electric or optical cables by determination of the weighted average of pH and conductivity of the constituent materials.

NOTE: The relevant cable standard should indicate which materials from the cable should be tested.

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 50267-1: Common test methods for cables under fire conditions. Tests on gases evolved during the combustion of materials from cables. Part 1: Test apparatus.

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 of EN 50267-2-3 the following definition applies. The definition is taken from EN 60695-4.

3.1 **Combustion:** Exothermic reaction of a substance with an oxidizer with emission of effluent, generally accompanied by flames and/or glowing and/or emission of smoke.

4. **Test apparatus**

The apparatus used shall be that specified in EN 50267-1 together with the following measuring instruments:

- analytical balance of an accuracy of  $\pm 0,1$  mg;
- pH meter to an accuracy of  $\pm 0,02$ , equipped with a suitable pH electrode;

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