

# Test on gases evolved during the combustion of materials from cables —

## Part 2: Determination of degree of acidity (corrosivity) of gases by measuring pH and conductivity

(Implementation of CENELEC HD 602 S1)

## Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Cables and Insulation Standards Policy Committee (CIL/-) to Technical Committee CIL/20, upon which the following bodies were represented:

Aluminium Federation  
Association of Consulting Engineers  
Association of Manufacturers of Domestic Electrical Appliances  
British Approvals Service for Cables  
British Cable Makers' Confederation  
British Plastics Federation  
British Steel Industry  
Department of the Environment (Property Services Agency)  
Department of Trade and Industry (Consumer Safety Unit, CA Division)  
Electricity Association  
Engineering Equipment and Materials Users' Association  
Institution of Electrical Engineers  
London Regional Transport

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

British Railways Board  
British Rubber Manufacturers' Association Ltd.  
British Telecommunications plc  
ERA Technology Ltd.  
GAMBICA (BEAMA Ltd.)  
Institution of Incorporated Executive Engineers  
London Underground Ltd.  
Queen Mary and Westfield College  
Telecommunications Cables Group of BCMC  
Warrington Fire Research Centre

This British Standard, having been prepared under the direction of the Cables and Insulation Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 15 February 1993

© BSI 07-1999

The following BSI references relate to the work on this standard:  
Committee reference CIL/20  
Draft for comment 89/29387 DC

ISBN 0 580 21613 6

### Amendments issued since publication

| Amd. No. | Date | Comments |
|----------|------|----------|
|          |      |          |
|          |      |          |
|          |      |          |
|          |      |          |
|          |      |          |

# Contents

|                                                                                              | Page               |
|----------------------------------------------------------------------------------------------|--------------------|
| Committees responsible                                                                       | Inside front cover |
| National foreword                                                                            | ii                 |
| Foreword                                                                                     | 2                  |
| Text of HD 602 S1                                                                            | 3                  |
| National annex NA (informative) Original IEC text<br>amended by CENELEC common modifications | Inside back cover  |
| National annex NB (informative) Cross-references                                             | Inside back cover  |

## National foreword

This Part of BS 6425 has been prepared under the direction of the Cables and Insulation Standards Policy Committee.

Part 1 of BS 6425 is related to IEC Publication 754-1:1982 *Tests on gases evolved during combustion of electric cables — Part 1: Determination of the amount of halogen acid gas evolved during combustion of polymeric materials taken from cables*, published by the International Electrotechnical Commission (IEC).

This Part of BS 6425 implements CENELEC Harmonization Document HD 602S1, which consists of the text of IEC 754-2 with common modifications.

It has been assumed in the preparation of this British Standard that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

**WARNING.** The methods of test described in this British Standard do not necessarily detail all precautions necessary to meet the requirements of the Health and Safety at Work etc. Act 1974. Attention should be paid to any appropriate safety precautions and the tests should be carried out only by trained personnel.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

**Compliance with a British Standard does not of itself confer immunity from legal obligations.**

### Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the HD title page, pages 2 to 10, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

---

UDC 621.315.3:620.1

Descriptors: Fire hazard testing, test methods, synthetic materials, corrosiveness of smoke, determination pH value

English version

Test on gases evolved during the combustion of materials  
from cables.  
Determination of degree of acidity (corrosivity) of gases by  
measuring pH and conductivity

(IEC 754-2:1991, modified)

Essai sur les gaz émis lors de la combustion des  
matériaux prélevés sur câbles Détermination  
de l'acidité (corrosivité) des gaz par mesurage  
du pH et de la conductivité  
(CEI 754-2:1991, modifiée)

Prüfung der bei der Verbrennung von Kabel —  
und Leitungswerkstoffen entstehenden Gase  
Bestimmung des Grades der Azidität  
(Korrosivität) von Brandgasen durch die  
Messung von pH und Leitfähigkeit  
(IEC 754-2:1991, modifiziert)

This Harmonization Document was approved by CENELEC on 1992-03-24. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document on a national level.

Up-to-date lists and bibliographical references concerning such national implementation may be obtained on application to the Central Secretariat or to any CENELEC member.

This Harmonization Document exists in three official versions (English, French, German).

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

## CENELEC

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: rue de Stassart 35, B-1050 Brussels**

---

© 1992 Copyright reserved to CENELEC members