



National Standards Authority of Ireland

IRISH STANDARD

**I.S. EN 50289-4-12:2004**

ICS 13.220.40  
33.120.10

**COMMUNICATION CABLES - SPECIFICATION  
FOR TEST METHODS PART 4-12:  
ENVIRONMENTAL TEST METHODS -  
VERTICAL FLAME SPREAD TEST ON  
BUNCHED SMALL COMMUNICATION CABLES**

National Standards  
Authority of Ireland  
Glasnevin, Dublin 9  
Ireland

Tel: +353 1 807 3800  
Fax: +353 1 807 3838  
<http://www.nsai.ie>

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*This Irish Standard was  
published under the  
authority of the National  
Standards Authority of  
Ireland and comes into  
effect on:  
June 1, 2005*

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EUROPEAN STANDARD

**EN 50289-4-12**

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2004

ICS 13.220.40; 33.120.10

English version

**Communication cables –  
Specifications for test methods  
Part 4-12: Environmental test methods –  
Vertical flame spread test on bunched small communication cables**

Câbles de communication –  
Spécifications des méthodes d'essai  
Partie 4-12: Méthodes d'essais  
d'environnement –  
Essai de propagation verticale  
de la flamme pour petits câbles  
de communication en faisceaux

Kommunikationskabel –  
Spezifikationen für Prüfverfahren  
Teil 4-12: Umweltprüfverfahren –  
Prüfung der vertikalen Ausbreitung von  
Flammen auf dünne  
Kommunikationskabelbündel

This European Standard was approved by CENELEC on 2004-02-01. 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  
Europäisches Komitee für Elektrotechnische Normung

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

## Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 46X, Communication cables.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50289-4-12 on 2004-02-01.

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) 2005-02-01
  - latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2007-02-01
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## 1 Scope

This part 4-12 of EN 50289 concerns small communication cables with a diameter equal or less than 14 mm, mounted on a test scale in bundles in order to obtain a total normal volume of non-metallic material equal to 0,5 l/m of test sample.

The application time is 20 min.

The tests proposed are for communication cables that require the testing of cables for low density installation.

The tests must be stipulated in the cable specifications, where the requirements must also be given.

## 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 50266-1   | Common test methods for cables under fire conditions - Test for vertical flame spread of vertically-mounted bunched wires or cables<br>Part 1: Apparatus   |
| EN 60695-4   | Fire hazard testing -- Part 4: Terminology concerning fire tests (IEC 60695-4)   |
| EN 60811-1-3 | Insulating and sheathing materials of electric and optical cables – Common test methods<br>Part 1-3: General application - Methods for determining the density - Water absorption tests - Shrinkage test (IEC 60811-1-3) |

## 3 Definitions

For the purpose of the present EN 50289-4-12, the following definitions apply. These definitions are taken from EN 60695-4.

### 3.1

#### **source of ignition**

source of energy triggering combustion

### 3.2

#### **charred residue**

carbon residue, resulting from pyrolysis or from incomplete combustion

### 3.3

#### **flame spread**

spreading of a flame front

## 4 Test apparatus

### 4.1 General information

The apparatus specified in EN 50266-1 must be used.

### 4.2 Source of ignition

The source of ignition should comprise a propane ribbon burner as specified in EN 50266-1.

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