PD IEC/TR 62222:2012

BSI Standards Publication

Fire performance of communication cables installed in buildings

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National foreword

This Published Document is the UK implementation of IEC/TR 62222:2012. It supersedes PD IEC/TR 62222:2005 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee EPL/46, Cables, wires and waveguides, radio frequency connectors and accessories for communication and signalling.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Published by BSI Standards Limited 2013

ISBN 978 0 580 65457 2

ICS 13.220.40; 33.120.20

Compliance with a British Standard cannot confer immunity from legal obligations.

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 30 April 2013.

Amendments issued since publication

Amd. No.	Date	Text affected

IEC/TR 62222

Edition 2.0 2012-07

TECHNICAL REPORT

RAPPORT TECHNIQUE

Fire performance of communication cables installed in buildings

Tenue au feu des câbles de communication installés dans les bâtiments

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

PRICE CODE
CODE PRIX X

ICS 33.120.20

ISBN 978-2-83220-205-0

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIRE PERFORMANCE OF COMMUNICATION CABLES INSTALLED IN BUILDINGS

FOREWORD

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IEC/TR 62222, which is a technical report, has been prepared by subcommittee 46C: Wires and symmetric cables, of IEC technical committee 46: Cables, wires, waveguides, r.f. connectors, r.f. and microwave passive components and accessories.

This second edition cancels and replaces the first edition published in 2005. It constitutes a technical revision.

The 2005 technical report was the first attempt in understanding the potential fire hazards concerning new installations where large quantities of data cable are involved. Although it is important to remember that data cables will probably not spontaneously combust and offices are still filled with other highly flammable products, the increase of “flood wiring” should be a building design concern. This second edition attempts to align all the installation guides found and further improve safety with fire and its possible transmission. Projects that formed the

overall direction of the 2005 edition have been taken into account, enabling an overall general improvement of the document..

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
46C/959/DTR	46C/962/RVC

Full information on the voting for the approval of this technical report can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

FIRE PERFORMANCE OF COMMUNICATION CABLES INSTALLED IN BUILDINGS

1 Scope

This Technical Report provides recommendations for the requirements and test methods to be specified for the fire performance of communication cables when installed in buildings.

The recommendations relate to typical applications and installation practices for copper and optical cables in buildings. This Technical Report includes an assessment of the fire hazards presented by such installations, and describes fire scenarios that have been established and the appropriate cable fire performances to mitigate these hazards. ISO/IEC 11763-2 recommends installation methods which, together with this Technical Report, provide guidelines for improving safety during fire.

The recommendations also take into account legislation and regulations applicable to the fire performance of cables, an assessment of known test methods and their ability to measure the recommended fire performance.

Power cables are usually segregated from communication cables for electrical safety and installed differently so they have not been addressed in this Technical Report.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60332-1 (all parts), *Tests on electric and optical cables under fire conditions – Part 1: Test for vertical flame propagation for a single insulated wire or cable*

IEC 60332-1-2, *Tests on electric and optical fibre cables under fire conditions – Part 1-2: Test for vertical flame propagation for a single insulated wire or cable – Procedure for 1 kW pre-mixed flame*

IEC 60332-1-3, *Tests on electric and optical fibre cables under fire conditions – Part 1-3: Test for vertical flame propagation for a single insulated wire or cable – Procedure for determination of flaming droplets/particles*

IEC 60332-2-2 (all parts), *Tests on electric and optical cables under fire conditions – Part 2: Test for vertical flame propagation for a single small insulated wire or cable*

IEC 60332-2-2, *Tests on electric and optical fibre cables under fire conditions – Part 2-2: Test for vertical flame propagation for a single small insulated wire or cable – Procedure for diffusion flame*

IEC 60332-3 (all parts), *Tests on electric and optical cables under fire conditions – Part 3: Test for vertical flame spread of vertically-mounted bunched wires or cables*

IEC 60332-3-24, *Tests on electric and optical fibre cables under fire conditions – Part 3-24: Test for vertical flame spread of vertically-mounted bunched wires or cables – Category C*