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# TECHNICAL REPORT

## Fire performance of communication cables installed in buildings

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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# FIRE PERFORMANCE OF COMMUNICATION CABLES INSTALLED IN BUILDINGS

## FOREWORD

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IEC TR 62222 has been prepared by subcommittee 46C: Wires and symmetric cables, of IEC technical committee 46: Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories. It is a Technical Report.

This third edition cancels and replaces the second edition published in 2012. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) Scope rewritten to clarify and bring into line current understanding from other technical sources;
b) Normative References updated to be in line with the most recent technical definitions and new additions;
c) new additional terms and definitions added to Annex F since these are not used in the document;
d) new inclusions to the list of abbreviated terms, some corrections;
e) project reports are now in Annex E, for information only;

f) Subclause 4.2 Mitigation of fire hazards, about fire protection, updated with clearer information on standards plus updates where new standards have been published or amended;

g) test methods, test methods conclusions and fire performance updated.

The text of this Technical Report is based on the following documents:

| DTR | Report on voting |
|---|---|
| 46C/1151/DTR | 46C/1156/RVDTR |

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

The language used for the development of this Technical Report is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

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

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

# INTRODUCTION

IEC TR 62222:2005 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. IEC TR 62222:2012 attempted to align all the installation guides found and further improve safety with fire and its possible transmission.

# FIRE PERFORMANCE OF COMMUNICATION CABLES INSTALLED IN BUILDINGS

## 1 Scope

This document describes the test methods for various parameters relating to the reaction to fire properties of metallic and optical fibre communications cables. The parameters have particular importance for cables intended to be installed within buildings and other structures.

This document also maps the test methods and associated limits applied to the fire hazards created by particular installation conditions and which can be referenced by other international, regional and national standards. For example, it is important that compliance with the requirements and recommendations for installation methods in ISO/IEC 14763-2 taking into consideration this document improve safety concerning fire.

## 2 Normative references

There are no normative references in this document.