Second edition
2012-06-01

Fire-resistance tests — Elements of building construction —

Part 3: Commentary on test method and guide to the application of the outputs from the fire-resistance test

Essais de résistance au feu — Éléments de construction —

Partie 3: Commentaires sur les méthodes d'essais et guides pour l'application des résultats des essais de résistance au feu

Reference number
ISO/TR 834-3:2012(E)

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In exceptional circumstances, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example), it may decide by a simple majority vote of its participating members to publish a Technical Report. A Technical Report is entirely informative in nature and does not have to be reviewed until the data it provides are considered to be no longer valid or useful.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO/TR 834-3 was prepared by Technical Committee ISO/TC 92, *Fire safety*, Subcommittee SC 2, *Fire containment*.

This second edition cancels and replaces the first edition (ISO/TR 834-3:1994), which has been technically revised.

ISO/TR 834 consists of the following parts, under the general title *Fire-resistance tests — Elements of building construction*:

— Part 1: *General requirements*

— Part 2: *Guidance on measuring uniformity of furnace exposure on test samples*

— Part 3: *Commentary on test method and guide to the application of the outputs from the fire-resistance test*

— Part 4: *Specific requirements for loadbearing vertical separating elements*

— Part 5: *Specific requirements for loadbearing horizontal separating elements*

— Part 6: *Specific requirements for beams*

— Part 7: *Specific requirements for columns*

— Part 8: *Specific requirements for non-loadbearing vertical separating elements*

— Part 9: *Specific requirements for non-loadbearing ceiling elements*

The following parts are under preparation:

— Part 10: *Specific requirements to determine the contribution of applied fire protection materials to structural elements*

— Part 11: *Specific requirements for the assessment of fire protection to structural steel elements*

— Part 12: *Specific requirements for separating elements evaluated on less than full scale furnaces*

Introduction

Fire resistance is a property of a construction and not of a material and the result achieved is to a large extent related to the design of the specimen and the quality of the construction. It is not an “absolute” property of the construction and variations in both the materials and methods of construction will produce differences in the measured performance and changes in the exposure conditions are likely to have an even greater impact on the level of fire resistance the element can provide.

This part of ISO/TR 834 provides guidance to those contemplating testing, the laboratory staff performing the test, the designers of buildings, the specifiers and the authorities responsible for implementing fire safety legislation, to enable them to have a greater understanding of the role of the fire resistance test and the correct application of its outputs.