INTERNATIONAL STANDARD

ISO 12468-1

First edition
2003-03-15

External exposure of roofs to fire —

Part 1: Test method

Exposition des toitures à un feu extérieur —

Partie 1: Méthode d'essais

Reference number
ISO 12468-1:2003(E)

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Published in Switzerland

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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.

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 12468-1 was prepared by Technical Committee ISO/TC 92, *Fire safety*, Subcommittee SC 2, *Fire containment*.

ISO 12468 consists of the following parts, under the general title *External exposure of roofs to fire*

— *Part 1: Test method*

— *Part 2: Classification*

Introduction

This part of ISO 12468 specifies a test method that relates to the effects of fires on roofs. The test method described in this part of ISO 12468 represents the effect of two levels of fire exposure.

— Level A: A large burning brand coming from a nearby building and falling onto the roof. Level A considers the effects of wind and additional radiant heat.

— Level B: A small burning brand transported by the wind from a remote fire and falling onto the roof. Level B considers the effect of wind but without additional radiant heat.

Any national regulation may refer to only one or both of the two levels of fire exposure.

External exposure of roofs to fire —

Part 1:
Test method

CAUTION — The attention of all persons concerned with managing and carrying out this fire test is drawn to the fact that fire testing may be hazardous and that there is a possibility that toxic and/or harmful smoke and gases may be evolved during the test. Mechanical and operational hazards may also arise during the construction of the test elements or structures, their testing and disposal of test residues.

An assessment of all potential hazards and risks to health shall be made and safety precautions shall be identified and provided. Written safety instructions shall be issued. Appropriate training shall be given to relevant personnel. Laboratory personnel shall ensure that they follow written safety instructions at all times.

1 Scope

This part of ISO 12468 specifies a test method to determine the resistance of roofs to external exposure to fire. This method evaluates the behaviour of the roof when exposed to two types of burning brands combined with wind and with or without heat radiation, concerning:

a) the fire spread across the external surface of the roof;

b) the fire spread within the roof;

c) the fire penetration;

d) the production of flaming droplets or debris falling through the roof, from the underside of the roof or from the exposed surface.

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.

ISO 13943, *Fire safety — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 13943 and the following apply.

3.1
assembly
fabrication of materials and/or composites

EXAMPLE Sandwich panels.