
**Fire resistance tests — Fire dampers
for air distribution systems —**

**Part 5:
Intumescent fire dampers**

*Essais de résistance au feu — Clapets coupe-feu pour systèmes de
distribution d'air —*

Partie 5: Clapets résistants au feu intumescent



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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 10294-5 was prepared by Technical Committee ISO/TC 92, *Fire safety*, Subcommittee SC 2, *Fire containment*.

ISO 10294 consists of the following parts, under the general title *Fire resistance tests — Fire dampers for air distribution systems*:

- *Part 1: Method of test*
- *Part 2: Classification, criteria and field of application of test results*
- *Part 3: Guidance on the test method*
- *Part 4: Test of thermal release mechanism*
- *Part 5: Intumescent fire dampers*

Fire resistance tests — Fire dampers for air distribution systems —

Part 5: Intumescent fire dampers

CAUTION — The attention of all persons concerned with managing and carrying out this fire resistance test is drawn to the fact that fire testing can be hazardous and that there is a possibility that toxic and/or harmful smoke and gases can be evolved during the test. Mechanical and operational hazards can 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 10294-5 describes the test requirements related to intumescent fire dampers. It identifies the minor modifications needed to adapt the test method described in ISO 10294-1 (which was intended for mechanical dampers) to suit intumescent fire dampers. Additional tests are included to give an assessment of the operational reliability of intumescent fire dampers.

This test is intended for intumescent fire dampers that are expected to be classified as EI dampers in accordance with ISO 10294-2. Without the addition of a mechanical damper, they are unable to achieve the "S" classification, which includes a leakage limit imposed at ambient temperatures.

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 10294-1:1996, *Fire resistance tests — Fire dampers for air distribution systems — Part 1: Test method*

ISO 10294-2:1999, *Fire resistance tests — Fire dampers for air distribution systems — Part 2: Classification, criteria and field of application of test results*

ISO 10294-3:1999, *Fire resistance tests — Fire dampers for air distribution system — Part 3: Guidance on the test method*

ISO 10294-4: 2001, *Fire resistance tests — Fire dampers for air distribution systems — Part 4: Test of thermal release mechanism*

ISO 13943, *Fire safety — Vocabulary*