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**Fire tests — Smoke control door and  
shutter assemblies —**

**Part 2:**

Commentary on test method and test data  
application

*Essais au feu — Assemblages porte et volet pare-fumée —*

*Partie 2: Commentaires sur la méthode d'essai et l'application  
des données de l'essai*



## Foreword

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The main task of technical committees is to prepare International Standards, but in exceptional circumstances a technical committee may propose the publication of a Technical Report of one of the following types:

- type 1, when the required support cannot be obtained for the publication of an International Standard, despite repeated efforts;
- type 2, when the subject is still under technical development or where for any other reason there is the future but not immediate possibility of an agreement on an International Standard;
- type 3, 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).

Technical Reports of types 1 and 2 are subject to review within three years of publication, to decide whether they can be transformed into International Standards. Technical Reports of type 3 do not necessarily have to be reviewed until the data they provide are considered to be no longer valid or useful.

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ISO/TR 5925-2, which is a Technical Report of type 3, was prepared jointly by Technical Committee ISO/TC 92, *Fire safety*, Subcommittee SC 2, *Fire resistance*.

ISO/TR 5925 consists of the following parts, under the general title *Fire tests — Smoke control door and shutter assemblies*:

- *Part 1: Ambient and medium temperature leakage test procedure*
- *Part 2: Commentary on test method and test data application*

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## Introduction

Technical Committee ISO/TC 92 *Fire safety*, has prepared a test specification for smoke control doors as follows:

ISO 5925-1, *Fire tests — Smoke control door and shutter assemblies — Part 1: Ambient and medium temperature leakage test procedure*.

In a fire the decomposition of materials results in the production of heat and fire gases containing smoke particles. The consequent expansion of gases leads to the creation of pressure differential across door faces often assisted by wind pressures, mechanical or extract systems, stack effect or a combination of these. This pressure differential induces the movement of smoke past any openings or gaps including those in a door assembly. Schemes to keep building areas free of smoke use various techniques using obstructions to its movement, exhausting, dilution, pressurization either singly or in some suitable combination. Standard tests have been designed to measure the leakage of smoke when such conditions exist. They do not deal specifically with doors installed in conjunction with smoke control methods based on pressurization but, nevertheless, information obtained from these tests is likely to be helpful in assessing the suitability of such doors.

# Fire tests — Smoke control door and shutter assemblies —

## Part 2:

## Commentary on test method and test data application

### 1 Scope

This Technical Report establishes a commentary which explains the general philosophy and factors on which the test specified in ISO/DIS 5925-1 has been designed, to describe the limitations of its scope, to provide some general guidance for those who use the results of the test and to emphasize certain practical aspects of the procedure for those who carry out the test. All concerned with testing fire doors should read this commentary before initiating the test and before making use of the test results.

### 2 References

ISO 834:1975, *Fire-resistance tests — Elements of building construction*.

ISO/DIS 834-1, *Fire-resistance tests — Elements of building construction — Part 1: General requirements*.

ISO 3008:1976, *Fire-resistance tests — Door and shutter assemblies*.

ISO/TR 3956:1975, *Principles of structural fire-engineering design with special regard to the connection between real fire exposure and the heating conditions of the standard fire-resistance test (ISO 834)*.

ISO/DIS 5925-1, *Fire tests — Smoke control door and shutter assemblies — Ambient and medium temperature leakage test procedure*.

### 3 Definitions

For the purposes of this Technical Report, the definitions given in ISO/DIS 5925-1, together with the following, apply.

**3.1 door and shutter assembly:** A door and shutter assembly is an assembly comprising a fixed part (the door frame), one or more movable parts (the door leaves) and its hardware. The purpose of the door assembly is to allow or prevent access of persons and/or goods. The term hardware includes such items as hinges, latches, door handles, locks, keyholes (excluding keys), letter plates, sliding gear, closing devices, electrical wiring and any other items which may influence the performance of the assembly being tested.