

Australian Standard<sup>®</sup>

**Smoke doors**



This Australian Standard® was prepared by Committee FP-019, Passive Fire Protection. It was approved on behalf of the Council of Standards Australia on 29 June 2007. This Standard was published on 12 September 2007.

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The following are represented on Committee FP-019:

- Architectural Hardware Industry Association
  - Australasian Fire Authorities Council
  - Australian Building Codes Board
  - Australian Industry Group
  - Australian Institute of Building
  - Building Research Association of New Zealand
  - CSIRO Manufacturing and Infrastructure Technology
  - Department of Building and Housing (New Zealand)
  - Department of Human Services (Victoria)
  - Fire Protection Association Australia
  - Fire Protection Association New Zealand
  - Testing Interests (Australia)
- 

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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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## Smoke doors

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## PREFACE

This Standard was prepared by Standards Australia Committee FP-019, Passive Fire Protection.

The objective of this Standard is to improve life safety in buildings by limiting the spread of smoke and products of smoke through door openings.

Smoke is a major contributor toward fatalities and serious injury in structural fires; therefore, adequate smoke control systems are necessary in buildings, where deemed appropriate.

This Standard has been prepared to specify parameters for door performance based on allowable smoke leakage rates at given temperatures and pressures. It introduces a smoke rating for doors, akin to a fire rating, by which the results of testing to the test method Standard, AS 1530.7, *Methods for fire tests on building materials, components and structures, Part 7: Smoke control assemblies—Ambient and medium temperature leakage test procedure*, can be applied.

With the introduction of a performance-based Building Code of Australia, the use of smoke doors in buildings has increased, leading to a need to adequately specify and install doors having a quantified level of performance.

The specification of 30 min exposure at a temperature of 200°C has been aligned with the Building Code of Australia's deemed-to-satisfy requirements for smoke doors. Smoke spread through penetrations, including acceptable leakage rates, is the subject of research for regulatory review in the BCA.

At the time of writing there were no Australian Standards for testing high temperature smoke doors, although a project to consider a high temperature air leakage test is being investigated.

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is only for information and guidance.

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## STANDARDS AUSTRALIA

**Australian Standard**  
**Smoke doors**

## SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE**

This Standard sets out requirements for the specification, construction and installation of smoke doors.

NOTE: The general principles set out in this Standard may be applied to other smoke control assemblies such as smoke-resistant screens.

**1.2 APPLICATION**

This Standard is intended to complement the requirements of the *Building Code of Australia*, (BCA) for smoke control. It shall be used in conjunction with AS 1530.7.

**1.3 NORMATIVE REFERENCED DOCUMENT**

The following referenced document is indispensable for the application of this Standard.

NOTE: For a list of informative documents referred to in this Standard, see Bibliography at the end of the document.

## AS

1530	Methods for fire tests on building materials, components and structures
1530.7	Method 7: Smoke control assemblies—Ambient and medium temperature leakage test procedure

**1.4 DEFINITIONS**

For the purpose of this Standard the definitions below apply.

**1.4.1 Certifier**

A person or organization that assumes the responsibility of approving the installation of a smoke door in accordance with this Standard.

**1.4.2 Formal opinion**

The written opinion by a registered testing authority, prepared in accordance with Clause 4.3.2 of this Standard. Also referred to as ‘assessment’

**1.4.3 Registered testing authority**

An authority registered by the National Association of Testing Authorities (NATA) to test in the relevant field; or an organization outside Australia recognized by NATA through a mutual recognition agreement.

**1.4.4 Regulatory authority**

An authority administering Acts of Parliament or regulations under such Acts.

**1.4.5 Shall**

Indicates that a statement is mandatory.