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Australian Standard®

**Components for the protection of
openings in fire-resistant walls**

Part 1: Fire-resistant doorsets



This Australian Standard was prepared by Committee BD/19, Fire Doors. It was approved on behalf of the Council of Standards Australia on 20 October 1989 and published on 12 March 1990.

The following interests are represented on Committee BD/19:

Australian Uniform Building Regulations Coordination Council
Australian Assembly of Fire Authorities
Board of Fire Commissioners of New South Wales
Building Owners and Managers Association of Australia
Commonwealth Fire Board
Confederation of Australian Industry
CSIRO, Division of Building, Construction and Engineering
Fire Protection Industry Association of Australia
Insurance Council of Australia
Metal Trades Industry Association of Australia
Royal Australian Institute of Architects

Additional interests participating in the preparation of this Standard:

Telecom Australia

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**Components for the protection of
openings in fire-resistant walls**

Part 1: Fire-resistant doorsets

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PREFACE

This Standard was prepared by the Standards Australia Committee on Fire Doors to supersede AS 1905.1—1984.

In this edition the requirements related to doorset installation have been revised to emphasize the intent of the Standard. Design requirements and installation requirements are also more clearly defined.

In addition, a non-integral appendix has been included, setting out a series of tests against which the physical capacity of the fire door may be measured.

The requirements for maintenance of fire-resistant doorsets are covered in AS 1851, *Maintenance of fire protection equipment, Part 7: Fire-resistant doorsets*.

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STANDARDS AUSTRALIA

Australian Standard

Components for the protection of openings in fire-resistant walls

Part 1: Fire-resistant doorsets

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This Standard specifies requirements for the construction and installation of fire-resistant doorsets, other than lift-landing doors, used to protect openings in walls and partitions which are required to resist the passage of fire.

The Standard does not apply to transom panels above fire-resistant doorsets, nor does it apply to panels, whether hinged or not, giving access to service shafts (see Note 5).

NOTES:

- Where it is intended to install the fire-resistant doorset in high traffic areas, it is recommended that it be tested in accordance with Appendix A and that it complies with the requirements set out therein.
- Guidance on the introduction and maintenance of suitable quality systems can be found in AS 3900 to AS 3904.
- Guidance on information that should be supplied with an enquiry or order is given in Appendix B.
- Requirements governing lift-landing doors are given in AS 1735.11.
- Transom panels are considered as being part of the wall and are subject to different thermal insulation requirements from fire-resistant doorsets. Requirements applicable to these panels are dealt with in Building Regulations.

1.2 APPLICATION. This Standard is intended to complement the fire-protection requirements of the Building Code of Australia, and provides only minimum requirements.

1.3 REFERENCED DOCUMENTS. The following documents are referred to in this Standard:

AS	
1530	Methods for fire tests on building materials, components and structures
1530.1	Part 1: Combustibility test for materials
1530.3	Part 3: Simultaneous determination of ignitability, flame propagation, heat release and smoke release
1530.4	Part 4: Fire-resistance tests of elements of construction
1603	Thermal detectors in fire alarm installations
1735	SAA Lift Code
1735.11	Part 11: Fire-rated landing doors
1851	Maintenance of fire protection equipment
1851.7	Part 7: Fire-resistant doorsets
1890	Thermally-released links
1905	SAA Fire Door Code
1905.1	Part 1: Fire-resistant doorsets
Supplement 1:	Logbook for the maintenance of fire-resistant doorsets
2118	SAA Code for Automatic Fire Sprinkler Systems
2270	Plywood and blockboard for interior use
2271	Plywood and blockboard for exterior use
2484	Fire—Glossary of terms relating to fire tests

3900	Quality systems—Guide to selection and use
3901	Quality systems for design/development production, installation and servicing
3902	Quality systems for production and installation.
3903	Quality systems for final inspection and test
3904	Quality systems—Guide to quality management and quality system elements
B194	Tapping and metallic drive screws

1.4 DEFINITIONS. For the purpose of this Standard, definitions given in AS 2484 and those below apply. (See also Figures 1.4.1, 1.4.2, 1.4.3, and 1.4.4.)

1.4.1 Approved—approved by the Regulatory Authority or other authority concerned.

1.4.2 Automatic—where applied to a fire-resistant doorset, designed to operate when activated by an approved heat, smoke, or fire-sensing device.

1.4.3 Combustible—deemed combustible when tested in accordance with AS 1530.1.

1.4.4 Door stop—that part of a door frame against which the door leaf stops.

1.4.5 Doorset—a complete assembly comprising—

- the door leaf or leaves with glazing, if any, door hinges, door hardware and other inbuilt features if any;
- the door frame, if any, with its fixings to the wall and, for a sliding fire-resistant doorset, with all guides and their respective fixings to the lintel, wall or sill;
- the door closer or door-closing mechanism; and
- for an automatic fire-resistant doorset, the approved sensing device(s) and the closing mechanism.

1.4.6 Double-acting doorset—doorset whose leaf swings around one vertical side and is equally capable of opening in either direction.

1.4.7 Finished floor—where applied to the sill of a fire-resistant doorset, means the final level of the structural floor including any topping that is not deemed to be combustible.

1.4.8 Fire-resistance level (FRL)—the grading period in minutes for—

- structural adequacy;
- integrity; and
- insulation;

for a fire-resistant doorset as established in the standard fire test which was current at the time the door was tested.