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METHODS FOR FIRE TESTS ON BUILDING MATERIALS, COMPONENTS AND STRUCTURES

Part 4—FIRE-RESISTANCE TESTS OF ELEMENTS OF BUILDING CONSTRUCTION

1530 Methods for fire tests on building materials,
components and structures
Part 4—1990 Fire-resistance test of elements of
building construction
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Sets out test procedures and criteria for the determination
of fire resistance of elements of building construction. Follows
the basic principles and provisions of ISO 834—Fire-
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PREFACE

This edition of this standard was prepared by the Association's Committee on Fire Tests on Building Materials and Structures, to supersede AS 1530, Methods for Fire Tests on Building Materials and Structures, Part 4—1975, Fire-resistance Test on Structures.

This standard represents a further development of the philosophy and procedures adopted in the previous edition. The test method also follows the basic principles and provisions contained in ISO 834, Fire-resistance tests—Elements of Building Construction. Relatively minor departures from the ISO recommendations have been made only where specific performance requirements for elements of building construction have been traditionally acceptable in Australia. The inclusion of particular sections dealing with specific elements of construction will assist in the application of the test method and, although the tests may now appear more stringent, this edition does not introduce any significant modifications to the current fire-resistance testing practice.

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CONTENTS

	<i>Page</i>
SECTION 1. SCOPE AND GENERAL	
1.1 Scope	6
1.2 Application	6
1.3 Referenced documents	6
1.4 Definitions	6
1.5 Test philosophy	7
1.6 Linear dimensions	7
SECTION 2. GENERAL REQUIREMENTS	
2.1 Furnace	8
2.2 Measurement of temperature	8
2.3 Measurement of times	10
2.4 Measurement of deflection	10
2.5 Measurement of emitted radiant heat flux	10
2.6 Recording of temperature	10
2.7 Test specimen	10
2.8 Loading and restraint	11
2.9 Test procedure	12
2.10 Observations	13
2.11 Criteria of failure	14
2.12 Test results	14
2.13 Determination of fire resistance	14
2.14 Test report	14
SECTION 3. WALLS AND PARTITIONS	
3.1 Application of section	16
3.2 Test specimen	16
3.3 Instrumentation	16
3.4 Loading and restraint	16
3.5 Test procedure	16
3.6 Observations	16
3.7 Criteria of failure	16
SECTION 4. FLOORS, ROOFS, FLOOR/CEILING SYSTEMS AND ROOF/CEILING SYSTEMS	
4.1 Application of section	17
4.2 Test specimen	17
4.3 Instrumentation	17
4.4 Loading and restraint	19
4.5 Test procedure	19
4.6 Observations	19
4.7 Criteria of failure	19
4.8 Test results—incipient spread of fire	19
4.9 Test report	19
SECTION 5. COLUMNS	
5.1 Application of section	20
5.2 Test specimen—size	20
5.3 Instrumentation	20
5.4 Loading and restraint	20
5.5 Test procedure—heat exposure	20
5.6 Observations	20
5.7 Criteria of failure—structural adequacy	20
5.8 Determination of fire resistance	20

	<i>Page</i>
SECTION 6. BEAMS, GIRDERS AND TRUSSES	
6.1 Application of section	21
6.2 Test specimen	21
6.3 Instrumentation	21
6.4 Loading and restraint	23
6.5 Test procedure	23
6.6 Observations	23
6.7 Criteria of failure—Structural adequacy	23
6.8 Determination of fire resistance	23
SECTION 7. DOORSETS, SHUTTER ASSEMBLIES AND DAMPER ASSEMBLIES	
7.1 Application of section	24
7.2 Test specimen	24
7.3 Instrumentation	24
7.4 Test procedure	24
7.5 Observations	24
7.6 Criteria of failure	25
7.7 Determination of fire resistance	25
7.8 Test report	25
SECTION 8. GLAZING	
8.1 Application of section	26
8.2 Test specimen	26
8.3 Radiometer	26
8.4 Test procedure	26
8.5 Observations	26
8.6 Criteria of failure—Integrity	26
8.7 Determination of fire resistance	26
8.8 Test report	26
SECTION 9. AIR DUCTS	
9.1 Application of section	27
9.2 Test specimen	27
9.3 Positioning of the thermocouples	27
9.4 Procedure	28
9.5 Observations	28
9.6 Criteria of failure	28
9.7 Test report	28
SECTION 10. ELEMENTS PENETRATED BY SERVICES	
10.1 Application of section	29
10.2 Test specimen	29
10.3 Positioning of thermocouples	29
10.4 Test procedure	29
10.5 Observations	30
10.6 Criteria of failure	30
10.7 Test Report	30
APPENDIX A. RADIANT HEAT FLUX MEASUREMENTS	31

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

METHODS FOR FIRE TESTS ON BUILDING MATERIALS, COMPONENTS AND STRUCTURES

PART 4—FIRE-RESISTANCE TESTS OF ELEMENTS OF BUILDING CONSTRUCTION

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This standard applies to heating conditions, test procedures, and criteria for the determination of fire resistance of an element of building construction. In most cases a single test, carried out in accordance with this standard, establishes the fire resistance for the element of construction concerned.

NOTE: The standard also gives methods for the determination of—

- (a) resistance to incipient spread of fire in ceiling systems; and
- (b) radiant heat flux emitted from doorsets, shutter assemblies, damper assemblies and glazing.

1.2 APPLICATION. Each test shall be performed in accordance with the general requirements of Section 2 and with the following Sections, as appropriate:

- (a) Section 3— Walls and partitions.
- (b) Section 4— Floors, roofs, floor/ceiling systems and roof/ceiling systems.
- (c) Section 5— Columns.
- (d) Section 6— Beams, girders and trusses.
- (e) Section 7— Doorsets, shutter assemblies and damper assemblies.
- (f) Section 8— Glazing.
- (g) Section 9— Air ducts.
- (h) Section 10—Elements penetrated by services.

The requirements in Sections 3 to 10, shall take precedence over the general requirements of Section 2.

1.3 REFERENCED DOCUMENTS. The following standards are referred to in this standard:

AS 1080	Methods of Test for Timber Part 1—Moisture Content
AS 1530	Methods for Fire Tests on Building Materials and Structures Part 1—Combustibility Test for Materials
AS 1668	SAA Mechanical Ventilation and Airconditioning Code Part 1—Fire Precautions in Buildings with Air-handling Systems
AS 1682	Fire Dampers
AS 1735	SAA Lift Code
AS 1905	SAA Fire Door Code Part 1—Fire Resistant Doorsets Part 2—Fire Resistant Roller Shutters
ANSI MC96.1	Temperature Measurement Thermocouples
AS 4207	International Thermocouple Reference Tables Part 4—Nickel-chromium/nickel-aluminium Thermocouples. Type K.
BS EN 43710	Measurement and Control, Electrical Temperature Sensors, Reference Tables and Materials of Thermocouples

1.4 DEFINITIONS. For the purpose of this standard, the following definitions apply:

1.4.1 Applicant—a company, corporation, organization, association, partnership, individual or manufacturer's registered agent that submits an element of building construction to a testing laboratory for the purpose of fire-resistance testing in accordance with this standard.

1.4.2 Combustible—deemed combustible when tested in accordance with AS 1530, Part 1.

1.4.3 Damper assembly—a complete assembly defined as 'fire damper' in AS 1682.