AS 1530.4—1997

# Australian Standard®

Methods for fire tests on building materials, components and structures

Part 4: Fire-resistance tests of elements of building construction

This Australian Standard was prepared by Committee BD/18, Fire Tests. It was approved on behalf of the Council of Standards Australia on 3 October 1997 and published on 5 December 1997.

The following interests are represented on Committee BD/18:

Australian Building Codes Board

Australian Chamber of Commerce and Industry

Australian Fire Authorities Council

Australian Institute of Building

Australian Wool Testing Authority

Building Research Association of New Zealand

Bureau of Steel Manufacturers of Australia

Cement & Concrete Association of Australia

CSIRO—Division of Building Construction and Engineering

Fire Protection Association of Australia

National Association of Forest Industries

New Zealand Fire Protection Association

Plastics and Chemicals Industries Association

Scientific Services Laboratory

Society of Fire Protection Engineers NZ

Testing interests (Australia)

**Review of Australian Standards.** To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.

amendments thereto.

Full details of all Australian Standards and related publications will be found in the Standards Australian Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

AS 1530.4—1997

# Australian Standard®

Methods for fire tests on building materials, components and structures

Part 4: Fire-resistance tests of elements of building construction

Originated as part of AS A30—1935. Previous edition AS 1530.4—1990. Fourth edition 1997.

AS 1530.4—1997

2

#### **PREFACE**

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee BD/18, Fire Tests, to supersede AS 1530.4—1990.

This Standard is the result of a consensus among the representatives on the Joint Committee that it be produced as an Australian Standard.

The test method follows the basic principles and procedures contained in ISO 834: 1975, 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.

This edition addresses furnace control and furnace thermocouples so as to achieve uniformity with ISO 834.

Technical changes in this edition have been made to Sections 1, 2, 5, 6, 8 and 10, and changes of an editorial nature have been made to bring the Standard into line with current Standards Australia style.

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.

### © Copyright - STANDARDS AUSTRALIA

Users of Standards are reminded that copyright subsists in all Standards Australia publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia. Permission may be conditional on an appropriate royalty payment. Requests for permission and information on commercial software royalties should be directed to the head office of Standards Australia.

Standards Australia will permit up to 10 percent of the technical content pages of a Standard to be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia.

Standards Australia will also permit the inclusion of its copyright material in computer software programs for no royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia at any time.

### CONTENTS

	P	Page
SECTIO	N 1 SCOPE AND GENERAL	
1.1	SCOPE	6
1.1	PRINCIPLE	
1.3	APPLICATION	
	REFERENCED DOCUMENTS	
1.4		
1.5	DEFINITIONS	
1.6	LINEAR DIMENSIONS	8
SECTIO	N 2 GENERAL REQUIREMENTS	
2.1	FURNACE	9
2.2	MEASUREMENT OF TEMPERATURE	
2.3	MEASUREMENT OF TIME	
2.4	MEASUREMENT OF DEFLECTION	
2.5	MEASUREMENT OF EMITTED RADIANT HEAT FLUX	
2.6	RECORDING OF TEMPERATURE	
2.7	TEST SPECIMEN	
	LOADING AND RESTRAINT	
2.8	TEST PROCEDURE	
2.9		
2.10	OBSERVATIONS	
2.11	CRITERIA OF FAILURE	
2.12		
	DETERMINATION OF FIRE-RESISTANCE	
2.14	REPORTING OF RESULTS	19
SECTIO	N 3 WALLS AND PARTITIONS	
3.1	APPLICATION OF SECTION	20
3.2	TEST SPECIMEN	
3.3	INSTRUMENTATION	
3.4	LOADING AND RESTRAINT	
3.5	TEST PROCEDURE	
3.6		
3.7	CRITERIA OF FAILURE	
3.,		
SECTIO	N 4 FLOORS, ROOFS, FLOOR/CEILING SYSTEMS AND ROOF/CEILING	
	SYSTEMS	
4.1	APPLICATION OF SECTION	
4.2	TEST SPECIMEN	
4.3	INSTRUMENTATION	
4.4	LOADING AND RESTRAINT	
4.5	TEST PROCEDURE	
4.6	OBSERVATIONS	25
4.7	CRITERIA OF FAILURE	
4.8	TEST RESULTS—INCIPIENT SPREAD OF FIRE	26
4.9	TEST REPORT	26



The is a new provider i arenade and chare publication at the limit below	This is a free preview.	Purchase the	entire publication	at the link below:
--	-------------------------	--------------	--------------------	--------------------

**Product Page** 

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation