AS 1720.4—2006

Australian Standard®

Timber structures

Part 4: Fire resistance for structural adequacy of timber members

This Australian Standard® was prepared by Committee TM-001, Timber Structures. It was approved on behalf of the Council of Standards Australia on 30 June 2006.
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The following are represented on Committee TM-001:

- A3P
- Association of Consulting Engineers Australia
- Australian Building Codes Board
- Australian Timber Importers' Federation
- Australian Wood Panels Association
- Building Research Association of New Zealand
- CSIRO Manufacturing and Infrastructure Technology
- Curtin University of Technology
- Engineers Australia
- Master Builders Australia
- Monash University
- New Zealand Forest Industries Council
- New Zealand Timber Industry Federation
- Plywood Association of Australasia
- Scion
- Timber Queensland
- University of Canterbury New Zealand
- University of Technology, Sydney

Additional Interests:

- Bruce Hutchings

This Standard was issued in draft form for comment as DR 04534.

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 public comment period.

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Australian Standard®

Timber structures

Part 4: Fire resistance for structural adequacy of timber members

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PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee TM-001, Timber Structures, to supersede AS 1720.4—1990, *Timber structures*, Part 4: *Fire-resistance of structural timber members*. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to provide a computational method for determining the fire resistance for structural adequacy of solid, plywood, laminated veneer lumber (LVL), and glued-laminated structural timber members as an alternative to the test method specified in AS 1530.4.

This revision extends the scope to cover the fire resistance level (FRL) for plywood and laminated veneer lumber (LVL) and clarifies that the FRL specified in this Standard is for the purpose of structural adequacy only.

This Standard forms Part 4 of the AS 1720 series, as follows:

AS	
1720	Timber structures
1720.1	Part 1: Design methods
1720.2	Part 2: Timber properties
1720.4	Part 4: Fire resistance for structural adequacy of timber members (this Standard)

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.

CONTENTS

STANDARDS AUSTRALIA

Australian Standard
Timber structures

Part 4: Fire resistance for structural adequacy of timber members

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard provides a computational method for determining the fire resistance for structural adequacy of solid, plywood, laminated veneer lumber (LVL), and glued-laminated structural timber members as an alternative to the test specified in AS 1530.4.

This Standard also provides methods for protecting metal connectors from the effects of fire.

NOTES:

1 This Standard is not relevant to the determination of the early fire hazard properties of materials for which a method of assessment is given in AS/NZS 1530.3.

2 This Standard is not relevant to structural accreditation through furnace testing for which the appropriate Standard is AS 1530.4.

1.2 NORMATIVE REFERENCED DOCUMENTS

The following referenced documents are indispensable for the application of this Standard.

NOTE: Informative referenced documents are listed in Appendix A. They are not an integral part of the Standard.

AS
1530 Methods for fire tests on building materials, components and structures
1530.4 Part 4: Fire-resistance test of elements of building construction

1720 Timber structures
1720.1 Part 1: Design methods

AS/NZS
1170 Structural design actions
1170.0 Part 0: Permanent, imposed and other actions

1328 Glued laminated structural timber
1328.1 Part 1: Performance requirements and minimum production requirements

ABCB
BCA Building Code of Australia

1.3 DEFINITIONS

For the purpose of this Standard the definitions below apply.

1.3.1 Standard fire

The standard heating conditions as specified in AS 1530.4.

