AS/NZS 1720.4:2019

Australian/New Zealand Standard™

Timber structures

Part 4: Fire resistance of timber elements

STANDARDS Australia

STANDARDS NEW ZEALAND PAEREWA AOTEAROA

AS/NZS 1720.4:2019

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The following are represented on Committee TM-010:

Australian Building Codes Board
Australian Forest Products Association
Australian Institute of Building Surveyors
Building Research Association of New Zealand
Engineered Wood Products Association of Australasia
Engineers Australia
Forest and Wood Products Australia
Forest Industries Federation, WA
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Master Builders Australia
Ministry of Business, Innovation and Employment, New Zealand
New Zealand Timber Industry Federation
Timber Development Association, NSW
Timber Queensland
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Australian/New Zealand Standard™

Timber structures

Part 4: Fire resistance of timber elements

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Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TM-010, Timber Structures and Framing, to supersede AS 1720.4—2006, *Timber structures, Part 4: Fire resistance for structural adequacy of timber members*.

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

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

AS 1720.1, *Timber structures, Part 1: Design methods*

AS 1720.2, *Timber structures, Part 2: Timber properties*

AS 1720.3, *Timber structures, Part 3: Design criteria for timber-framed residential buildings*

AS 1720.4, *Timber structures, Part 4: Fire resistance for structural adequacy of timber elements* (this Standard)

AS 1720.5, *Timber structures, Part 5: Nailplated timber roof trusses*

The terms "normative" and "informative" are used in Standards to define the application of the appendices to which they apply. A "normative" appendix is an integral part of a Standard, whereas an "informative" appendix is only for information and guidance.

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Section 1 Scope and general

1.1 Scope

This Standard provides a method for determining the fire resistance for structural adequacy and insulation of solid sawn timber, timber in pole form, plywood, laminated veneer lumber (LVL), and glued-laminated structural timber elements as an alternative to a standard fire test specified in AS 1530.4 for Australia and New Zealand; and the NZS/BS 476 series and EN 1365 series for New Zealand only.

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

NOTE 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.

NOTE 2 The advanced calculation method in Appendix B provides guidance for an additional method of determining fire resistance.

1.2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

NOTE Documents for informative purposes are listed in the Bibliography.

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

AS 1720.1, *Timber structures, Part 1: Design methods*

AS 2082, *Timber — Hardwood — Visually stress-graded for structural purposes*

AS 2858, *Timber — Softwood — Visually stress-graded for structural purposes*

AS 3519, *Timber — Machine proof grading*

AS 3818.3, *Timber — Heavy structural products — Visually graded, Part 3: Piles*

AS 3818.11, *Timber — Heavy structural products — Visually graded, Part 11: Utility poles*

AS/NZS 1170.0, *Structural design actions, Part 0: General principles*

AS/NZS 1328.1, *Glued laminated structural timber, Part 1: Performance requirements and minimum production requirements*

AS/NZS 1748.1, *Timber — Solid — Stress-graded for structural purposes, Part 1: General requirements*

AS/NZS 2269.0, *Plywood — Structural, Part 0: Specifications*

AS/NZS 4063, *Characterization of structural timber* (series)

AS/NZS 4357.0, *Structural laminated veneer lumber, Part 0: Specifications*

NZS 3603, *Timber Structures*

NZS 3631, *New Zealand timber grading rules*