AS 1530.8.2:2018

Methods for fire tests on building materials, components and structures

Part 8.2: Tests on elements of construction for buildings exposed to simulated bushfire attack—Large flaming sources

This Australian Standard® was prepared by Committee FP-018, Fire Safety. It was approved on behalf of the Council of Standards Australia on 11 October 2018.
This Standard was published on 8 November 2018.

The following are represented on Committee FP-018:

- Australasian Fire and Emergency Service Authorities Council
- Australian Building Codes Board
- Australian Industry Group
- Australian Institute of Building
- AWTA Product Testing
- Building Research Association of New Zealand
- Bureau of Steel Manufacturers of Australia
- CSIRO
- Engineers Australia
- Fire Protection Association Australia
- Fire Protection Association New Zealand
- Forest and Wood Products Australia
- Insulated Panel Council Australasia
- Insulation Australasia
- Insurance Council of Australia
- Plastics and Chemicals Industries Association
- Property Council of Australia
- Society of Fire Protection Engineers

This Standard was issued in draft form for comment as DR AS 1530.8.2:2018.

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 the public comment period.

Keeping Standards up-to-date

Australian Standards® are living documents that reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued.

Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting **www.standards.org.au**

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at **mail@standards.org.au**, or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

Australian Standard®

Methods for fire tests on building materials, components and structures

Part 8.2: Tests on elements of construction for buildings exposed to simulated bushfire attack—Large flaming sources

Originally as AS 1530.8.2—2007.
Second edition AS 1530.8.2:2018.

Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 978 1 76072 221 0

PREFACE

General

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee FP-018, Fire Safety to supersede AS 1530.8.2—2007.

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 major changes in this edition are as follows:

(a) Improved specification of test and specimen configurations in regard to skylights in roof construction and penetrations.

(b) Inclusion of provisions for the determination of the impact of weathering of exposed timber construction treated with chemicals or coatings that improve its fire performance.

(c) Inclusion of roof valley details for roof construction.

(d) Inclusion of test procedure for windows with screens and shutters.

(e) Clarification of reporting requirements to require observations relate to failure criteria and be less subjective.

(f) A general review of clarity, intent and specification of all testing requirements.

The AS 1530.8 series comprises this Standard and AS 1530.8.1, *Methods for fire tests on building materials, components and structures*, Part 8.1: *Tests on elements of construction for buildings exposed to simulated bushfire attack—Radiant heat and small flaming sources.*

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of the Standard, whereas an 'informative' appendix is only for information and guidance.

Figures which are referenced in mandatory terms are deemed to be included in the requirements of this Standard.

This Standard incorporates a commentary on some clauses. The commentary directly follows the relevant clause is designated by 'C' preceding the clause number and is printed in italics in a panel. The commentary is for information only and does not need to be followed for conformance with this Standard.

CONTENTS

STANDARDS AUSTRALIA

Australian Standard

Methods for fire tests on building materials, components and structures

Part 8.2: Tests on elements of construction for buildings exposed to simulated bushfire attack—Large flaming sources

1 SCOPE

This Standard provides methods for determining the performance of external construction elements when exposed to direct flame impingement from the fire front.

NOTES:

1 The methods simulate exposure to direct flame impingement from the fire front or large burning items such as other burning buildings or adjacent isolated trees and shrubs by utilizing the standard heating regime of AS 1530.4.

2 Flame contact from the fire front is expected to last less than 2 minutes but a 30 minute exposure period has been nominated to allow for potentially higher transient temperatures from the fire front. The 30 minute exposure also provides resistance to large burning items adjacent to the element of construction.

3 The results of the fire tests may be used to directly assess fire hazard, but it should be recognized that a single test method will not provide a full assessment of fire hazard under all fire conditions.

4 The fire tests in this Standard provide data relating to the performance of the particular element and building system and do not provide a general assessment of the performance of a specific type of material for use in bushfire prone areas.

2 OBJECTIVE

The objective of this Standard is to provide building designers, manufacturers, test laboratories and regulatory authorities with a set of uniform requirements for heating conditions, test procedures, and criteria for the determination of the resistance to fire of a single building element or multiple building elements (in accordance with the standard heating regime of AS 1530.4) to classify the performance of elements required to resist exposure to direct flame impingement from the fire front and large secondary fires.

3 PRINCIPLE

A representative element of construction or combination of elements, is exposed to the standard heating regime of AS 1530.4.

Observations are made on the performance of the specimen while it is subjected to simulated exposure. The elapsed times at which various performance criteria are exceeded are recorded. The performance criteria are selected to address typical fire spread scenarios and to facilitate relatively safe movement around a property after the passage of the fire front.

4 APPLICATION

This Standard specifies a test procedure applicable to a broad range of elements (and combinations of elements) of construction, including the following:

(a) External walls.

(b) Glazed vertical elements with and without shutters or screens.

