

Menu

- [Home Home](#)
- [About this portal](#)
- [Latest updates](#)

Print [Save](#) Email

[Resource detail](#)

[Citations](#)

AS/NZS 3837:1998 (R216) Method of test for heat and smoke release rates for materials and products using an oxygen consumption calorimeter

Table of Contents

[View on Information Provider website](#) `{{ linkText }}`

Abbreviation

AS/NZS 3837:1998

Amendment

A1 - incorporated.

Valid from

10/04/2012

Information provider

Standards New Zealand

Author

Standards New Zealand, Standards Australia

Information type

New Zealand Standard

Format

PDF

Cited By

[This resource is cited by 7 documents \(show Citations\)](#)

Cites

[This resource cites 4 documents \(show Citations\)](#)

Description

This Standard sets out a test method for the determination of ignitability, heat release rates, mass loss rates, effective heat of combustion and smoke release of materials and products when exposed to controlled levels of radiant heating.

Scope

This Standard specifies a test method for measuring the response of materials exposed to controlled levels of radiant heating with or without an external igniter.

The test method is used to determine the ignitability, heat release rates, mass loss rates, effective heat of combustion, and smoke release of materials and products. Properties are determined as follows:

- a) Rate of heat release, by measurement of the oxygen consumption, as determined by the oxygen concentration and the flow rate in the exhaust product stream;
- b) Effective heat of combustion from a concomitant measurement of specimen mass loss rate, in combination with the heat release rate;

- c) Smoke release, by obscuration of light by the combustion product stream; and
- d) Ignitability, as a measurement of time from initial exposure to time of sustained flaming.

For assistance with locating previous versions, please contact the information provider.

[Table of Contents](#) [View on Information Provider website](#) `{{ linkText }}`

For assistance with locating previous versions, please contact the information provider.

This resource is cited by:

AS/NZS 3837:1998 (R216) Method of test for heat and smoke release rates for materials and products using an oxygen consumption calorimeter

This document is CITED BY:

- [C/AS2 \(First Edition\)](#)

AS/NZS 3837:1998 is cited by Acceptable Solution C/AS2: Buildings other than Risk Group SH from 27/06/2019

- [C/VM2 \(First edition, amendment 4\)](#)

AS/NZS 3837:1998 is cited by Verification Method C/VM2: Framework for Fire Safety Design from 10/04/2012

- [C/VM2 \(First Edition, Amendment 2, Errata 2\)](#)

AS/NZS 3837:1998 is cited by Verification Method C/VM2: Framework for Fire Safety Design from 10/04/2012

- [C/VM2 \(First edition, Amendment 5\)](#)

AS/NZS 3837:1998 is cited by Verification Method C/VM2: Framework for Fire Safety Design from 10/04/2012

- [C/VM2 \(First Edition, Amendment 1, Errata 1\)](#)

AS/NZS 3837:1998 is cited by Verification Method C/VM2: Framework for Fire Safety Design from 10/04/2012

- [C/VM2 \(First Edition, Amendment 3\)](#)

AS/NZS 3837:1998 is cited by Verification Method C/VM2: Framework for Fire Safety Design from 10/04/2012

- [C/VM2 \(First Edition\)](#)

AS/NZS 3837:1998 is cited by Verification Method C/VM2: Framework for Fire Safety Design from 10/04/2012

[Back](#)

AS/NZS 3837:1998 (R216) Method of test for heat and smoke release rates for materials and products using an oxygen consumption calorimeter

[Show what documents this resource is CITED BY](#)

[Show what documents this resource CITES](#)

Description

This Standard sets out a test method for the determination of ignitability, heat release rates, mass loss rates, effective heat of combustion and smoke release of materials and products when exposed to controlled levels of radiant heating.

[View on Information Provider website](#)

[AS/NZS 3837:1998 \(R216\) Method of test for heat and smoke release rates for materials and products using an oxygen consumption calorimeter](#)

Description

This Standard sets out a test method for the determination of ignitability, heat release rates, mass loss rates, effective heat of combustion and smoke release of materials and products when exposed to controlled levels of radiant heating.

[View on Information Provider website](#)

This resource cites:

AS/NZS 3837:1998 (R216) Method of test for heat and smoke release rates for materials and products using an oxygen consumption calorimeter

This document CITES:

Australian Standards

- [AS 2484.1-1990 \(R2016\)](#)

AS/NZS 3837:1998 cites AS 2484.1-1990 (R2016) Fire - Glossary of terms - Part 1: Fire tests

Other

- [BCA 1996 Volume One](#)

AS/NZS 3837:1998 cites BCA 1996 - Building Code of Australia 1996 Volume One

- [FCRC 1998](#)

AS/NZS 3837:1998 cites FCRC 1998 - Fire performance of wall and ceiling linings: Final report

- [ISO 9705:1993](#)

AS/NZS 3837:1998 cites ISO 9705:1993 Fire tests - Full scale room test for surface products

Back

Close

Table of Contents

Section 1 Scope And General

1.1 Scope

1.2 Principle Of Test Method

1.3 Referenced Documents

1.4 Definitions

1.5 Application To Fire Hazard Assessment

1.6 Hazard Warnings

1.7 Mathematical Symbols

Section 2 Apparatus, Specimens And Test Procedures

2.1 Test Apparatus

2.2 Test Specimens

2.3 Test Environment

2.4 Calibration Of Apparatus

2.5 Test Procedure

2.6 Test Limitations

Section 3 Calculations And Reporting Of Results

3.1 Calculations

3.2 Test Report

3.3 Precision And Bias

3.4 Commercial Literature

3.4(A) Relevance Of Test Results For The Calculation Of Group Number For Classification Of Wall And Ceiling Linings In Accordance With The Ncc

3.4(B) Validity Of Empirical Correlation

3.5 Reference In Other Australian Standards

Appendices

Appendix A - Commentary

Appendix B - References

Appendix C - Diagram Of A Typical Oxygen Consumption Calorimeter

Appendix D - Calculation Of Heat Release With Additional Gas Analysis

Appendix E - Interlaboratory Trials

Print [Save](#) Email

[Feedback](#)

- [Contact us](#)
- [Privacy policy](#)
- [Disclaimer](#)
- [Copyright](#)

