Australian Standard®

Methods for fire tests on building materials, components and structures

Part 2: Test for flammability of materials

This Australian Standard was prepared by Committee BD/18, Fire Tests—Building Materials, Components, Structures. It was approved on behalf of the Council of Standards Australia on 11 January 1993 and published on 13 April 1993.

The following interests are represented on Committee BD/18:

Australian Assembly of Fire Authorities

Australian–British Chamber of Commerce

Australian Chamber of Commerce and Industry

Australian Fire Protection Association

Australian Institute of Building

Australian Uniform Building Regulations Coordinating Council

Australian Wool Testing Authority

Bureau of Steel Manufacturers of Australia

Cement and Concrete Association of Australia

Commonwealth Fire Board

CSIRO, Division of Building Construction and Engineering

Fire Protection Industry Association of Australia

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Master Builders Construction and Housing Association Australia

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PREFACE

This Standard was prepared by the Standards Australia Committee on Fire Tests— Building Materials, Components, Structures to supersede AS 1530.2—1973, *Fire tests on building materials and structures*, Part 2: *Test for flammability of materials.*

The major changes in this edition of the Standard are as follows:

(a) The inclusion of a statistical evaluation of the results and provision for additional testing.

(b) A change to the formula for calculating the speed factor so that flammability indices form a continuous range.

(c) A section has been added giving details to be included in the test report.

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This method applies to the testing of thin sheet or woven material which is sufficiently pliable to be inserted into the test apparatus by hand without special softening treatment, so that it may be graded according to a flammability index. The test is unsuitable for materials which melt readily or shrink away from an igniting flame.

1.2 REFERENCED DOCUMENTS The following documents are referred to in this Standard.

AS
2484 Fire—Glossary of terms
2484.1 Part 1: Fire tests

BS
4937 International thermocouple reference tables
4937.4 Nickel-chromium/nickel-aluminium thermocouples. Type K

1.3 DEFINITIONS For the purpose of this Standard, the definitions given in AS 2484.1 shall apply.

1.4 PRINCIPLE The specimen is mounted vertically on a frame and a flame applied to its base. The maximum height reached by the flame in a predetermined time or the time taken for the tip of the flame to reach a predetermined height is recorded together with the air temperature in a flue mounted above the specimen. From these measurements, the flammability index of the material is determined.

1.5 APPLICATION TO FIRE HAZARD ASSESSMENT The test results relate only to the behaviour of the test specimens of the material under the particular conditions of the test, and are not intended to be the sole criteria for assessing the potential fire hazard of the material in use.