

Australian Standard™

**Termite management**

**Part 1: New building work**



This Australian Standard was prepared by Committee BD-074, Termite Management. It was approved on behalf of the Council of Standards Australia on 3 November 2000 and published on 11 December 2000.

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The following interests are represented on Committee BD-074:

Australian Building Codes Board  
Australian Consumers Association  
Australian Environmental Pest Managers Association  
Cement and Concrete Association of Australia  
Clay Brick and Paver Institute  
Construction, Forestry, Mining and Energy Union  
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Local Government and Shires Associations of New South Wales  
Master Builders Australia  
National Registration Authority for Agricultural and Veterinary Chemicals  
Queensland Forestry Research Institute  
State Forests of New South Wales  
Total Environment Centre

Additional interests participating in the preparation of this Standard:

Australian Institute of Building Surveyors  
Concrete Masonry Association of Australia  
Consumers Federation of Australia  
Department of Lands Planning and Environment, Northern Territory

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**Part 1: New building work**

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## PREFACE

This Standard was prepared by the Standards Australia Committee BD-074, Termite Management, to supersede AS 3660.1—1995, *Protection of buildings from subterranean termites, Part 1: New buildings*.

The objective of this Standard is to provide builders, building designers, regulatory authorities, termite management system manufacturers and installers, and those people requiring termite management systems with methods of termite management for implementation during construction of new building work.

This Standard is Part 1 of a series of Standards on termite management. Other parts in the series are as follows:

AS

3660 Termite management

3660.2 Part 2: In and around existing buildings and structures—Guidelines

3660.3 Part 3: Assessment criteria for termite management systems

This Standard utilizes notes to some of the clauses. They are designated Note 1, Note 2, and so on, and are set in smaller point size, immediately following the clause. These Notes are for information and guidance only and compliance with them is not a requirement of the Standard.

Statements expressed in mandatory terms in notes to tables are deemed to be requirements of this Standard.

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 a Standard, whereas an 'informative' appendix is only for information and guidance.

Standards Australia draws attention to the fact that it is claimed that compliance with this Australian Standard may involve the use of patents concerning stainless steel mesh and graded stone particle termite barriers.

Standards Australia takes no position concerning the evidence, validity and scope of these patent rights.

The holders of these patent rights have assured Standards Australia that they are willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout Australia. In this respect, the statements of the holders of these patent rights are registered with Standards Australia.

Attention is drawn to the possibility that some of the elements of this Australian Standard may be subject to patent rights other than those identified above. Standards Australia shall not be held responsible for identifying any or all such patent rights.

**Future editions of this Standard will not include proprietary or patented systems. While reference will be made to the existence of such systems, each system manufacturer must demonstrate compliance with the performance criteria of this Standard, where required.**

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## FOREWORD

The purpose of termite barriers is to deter concealed entry by termites into a building, above the termite barrier. Termites can build around barriers but their workings or evidence thereof are then in the open where they may be detected more readily during regular inspections.

This Standard contains no procedures or details on durability, maintenance and inspection issues.

Where barrier systems for termite management of a building are to be installed, the designer should complete all construction details giving due consideration to the above before work commences. The requirements for an effective termite barrier can then be established for the particular site conditions and for any building characteristics.

More than 350 species of termites have been recorded in Australia, about 30 of which achieve economic importance as pests of timber-in-service. With the exception of the drywood termites, all species of economic importance are soil-dwelling (subterranean) and have similar habits. Several of them have a wide geographic distribution.

It is important to realize that subterranean termites may eat timber and timber products or any material containing cellulose (their principal food) and this could include building contents such as furniture, printed materials, fabrics, clothing, footwear, packing cases and tools. Termites can also damage some non-cellulose materials, for example, inferior concrete, soft metals, and soft plastics, building sealants and rigid foam insulation.

Typically, they form nests in the soil, near ground level in a stump, the trunk of a living tree or other suitable piece of wood. Sometimes the nest takes the form of a conical or dome-shaped mound. A colony may exist for many years and, as it matures, can have a population well in excess of one million termites. Attack by subterranean termites originates from the nest. Wood or timber lying on or buried in the ground may be reached by underground foraging galleries but attack may occur even above ground level either inside the wood or by way of mud-walled shelter-tubes 'plastered' to exposed surfaces. Timber resting on an impenetrable substructure may be reached by means of these shelter-tubes or through independent, freestanding columns built by the termites. In some cases, where a source of permanent moisture, e.g. leaking plumbing, is available to the termites within the building, subterranean termites can form a nest inside a building without soil contact.

In rare instances, scantling timbers delivered to a building site may contain small pockets of termites. However, these termites are highly unlikely to pose a risk to the building, as they are the remnants of feeding parties of the main colony. Once isolated from the nest, the termites are unable to survive as the moisture content of the timber diminishes. It should also be noted that termites, which are commonly encountered in both unseasoned scantling timbers and 'green' firewood, are species that are incapable of damaging dry (seasoned) timber. The presence of larvae (grubs) of wood-boring insects in firewood constitutes little threat to either structural or decorative building timbers.

'Drywood termites' are economically important only in restricted coastal, tropical, subtropical and adjacent tableland areas of Australia. Unlike subterranean termites they do not construct galleries or tunnels connecting the infested timber with the soil but form their nest inside the wood upon which they feed and so may attack any piece of susceptible timber, regardless of its position in a building. The evidence of infestation by these species is the presence of dry granular faecal pellets that may be stored in disused galleries or ejected through small openings in the surface of the wood.

## STANDARDS AUSTRALIA

**Australian Standard**  
**Termite management**

**Part 1: New building work**

## SECTION 1 SCOPE AND APPLICATION

**1.1 SCOPE**

This Standard sets out requirements for the design and construction of subterranean termite ('termites') management systems for new buildings and ground level extensions or renovations. It includes performance criteria, general requirements and deemed-to-satisfy solutions for both physical and chemical termite barriers throughout mainland Australia. A range of options is provided so that barriers may be used either singly, or in combination, to provide an integrated termite barrier system.

**The Standard includes methods to deter concealed entry by termites from the soil to the building above the termite barrier system.**

A TERMITE BARRIER SYSTEM CONSTRUCTED IN ACCORDANCE WITH THIS STANDARD CANNOT PREVENT TERMITE ATTACK, AS BARRIERS MAY BE BRIDGED OR BREACHED. WHERE TERMITES BRIDGE BARRIERS THE EVIDENCE MAY BE DETECTED DURING INSPECTIONS.

NOTE: The diagrams used in this Standard are indicative only and are deemed to meet the performance criteria outlined in Section 2. The diagrams apply to domestic construction techniques; however, they may be applied to other forms of construction and interpolation may be required. Some diagrams may have construction details such as damp proof courses, vapour barriers, and the like, omitted for clarity.

This Standard does not apply to the following:

- (a) The treatment of existing buildings (see Note 1).
- (b) Drywood termite infestations. The systems described herein will not be effective against concealed access by drywood termites nor termite nests established without soil contact.
- (c) Durability, maintenance and inspection procedures or details. These are outside the scope of this Standard.

## NOTES:

1 The treatment of existing buildings is covered in AS 3660.2.

2 Issues such as the detection of termite infestation, and the necessity and accessibility for regular, competent inspections can be found in AS 3660.2. It is recommended that access for inspection, maintenance and durability issues are considered as part of the design process.

3 It is stressed that the installation of a termite barrier system does not negate the need for regular competent inspections after installation.

4 Activities such as turfing, paving and landscaping adjacent to the building might compromise the inspection zone clearances required throughout the Standard. Where it is known that these activities will be undertaken, the clearances given in the Standard may need to be increased to maintain the required minimum inspection zones.

5 Barrier systems will not be effective where the nest is established inside the building and has no contact with the soil.