

# Protect your home from termites



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# ntroduction

Your home is probably the biggest investment you will ever make.

Termites, also known as white ants, could ruin your home. So protection is vital; something to think about NOW, before building work starts, not later.

If you are having a new home or additions built, it is important to know that your builder is responsible for providing termite protection for the work. This brochure has been produced to explain the options available for termite protection, so you will be better informed when you come to discuss this important issue with your builder.

Don't wait for your builder to decide for you. Act now and use this information to ensure the best protection of your new home or additions.



#### Termites - the facts

There are over 300 species of termite in Australia, but the vast majority of termite damage in New South Wales is caused by SUBTERRANEAN TERMITES, so called because they make their nests in the ground. Termites have been known to feed on many materials including plastics, rubber, fibreglass and of course wood. They attack house frames, wall linings including plaster board, cupboards, skirtings, windows and door frames, carpets, plastic coating on electrical wiring and even books, artwork, clothing and personal papers!

# **Protection options**

The big question is: how can termites be stopped from destroying your home?

You should be aware of the options for termite control so that you can discuss the matter with your builder, and if necessary seek further advice.

As we shall see, there are different methods of termite protection depending on whether your home is built on

- A CONCRETE SLAB ON THE GROUND or,
- A RAISED (OR SUSPENDED) FLOOR

Let's now look at the methods of termite protection under the following headings:

- 1. Chemical barriers
- 2. Physical barriers
- 3. Termite resistant materials
- 4. Minimum termite risk construction
- 5. Home inspections
- 6. Landscaping considerations

Whatever method or combination of methods is best for your home, it is most important that your builder provides "whole of house" protection. You want to protect your whole home, not just the structure.



Your builder is liable for the long term viability of the termite protection system installed by the builder. This liability extends to both you and to any subsequent purchasers of the home. The liability of builders to home owners and subsequent purchasers may, however, be limited by the terms of the builder's contract with you.

# Whole house protection is required

Builders should not be confused about the minimum requirements of the Building Code of Australia (BCA). The BCA is concerned with health and safety and is administered by local councils, but at the lowest level it only requires the structure to be of termite resistant materials.

The Office of Fair Trading administers the *Home Building Act 1989*, which is all about consumer protection. This *Act* requires a higher standard than the BCA. The building industry has been informed that the Office of Fair Trading requires "whole of house" protection and that builders are responsible for establishing that protection.

"Whole of house" protection ensures that your entire home is protected from termite attack. It therefore includes protection for the nonstructural elements such as window frames, skirting boards, cupboards, furniture and plaster-board, as well as the structural frame.

#### Chemical barriers

The long-life organochlorines that were commonly used since the 1950's were banned in 1995. Chemicals may still be used but only if approved by the Australian Pesticides and Veterinary Medicines Authority (APVMA)

Two chemicals are currently approved by the APVMA for use during construction. One is Chlorpyrifos, an organophosphate. The other is Bifenthrin, a synthetic pyrethroid.

These chemicals are most frequently used with concrete SLAB-ON-GROUND construction. The chemical is applied to the ground, under the entire slab and around the perimeter of the building.

These chemicals however have a life that is less than the expected life of your home – as little as 6-10 years under the slab and 3-5 years where exposed at the perimeter; even less in some conditions. The life of the chemical depends on the chemical used, the type of soil and general conditions (such as exposure to water).

Protecting your home for its full life is a matter you need to consider carefully before building or renovating.

If a chemical is to be used under the slab as the only form of termite treatment, planning for periodic re-treatment from outside the building is essential and you must ask your builder about the system planned for re-treatment.

Re-treatment can be done using a network of pipes called a RETICULATION SYSTEM. This system needs to be installed under the slab before the concrete is poured.

If a reticulation system is not installed, the only way to re-apply the chemicals would be to drill many holes through the slab (a costly, messy and disruptive process, that could also pose health risks).

Both chemicals currently approved, that is chlorpyrifos and bifenthrin, are toxic, and care needs to be taken with their use. The APVMA has placed stringent controls on their use to protect consumers, pest controllers and other building workers.



#### A Note on Chemicals

- 1. The use of chemicals is unsuitable for some ground conditions.
- 2. Some Local Councils have banned the use of chemicals.
- 3. A short-term termite protection system may affect the future resale value of your home.
- 4. Some chemical treatments have been promoted with insurance packages. When comparing the cost of various barriers you should consider the added cost of annual premiums as part of the cost of any system.

Each chemical is different, with different properties, different levels of toxicity and different lengths of life. In the future other chemicals may be approved with characteristics different to those currently approved. If your builder proposes to use a chemical barrier, ask for information so you can compare the products or obtain further advice.

## **Physical barriers**

The function of a physical barrier is to separate your home from the ground where termites may nest. For termites to enter your home, they would have to come out into the open and cross the physical barrier where they can be detected. So, physical barriers work best when your home is regularly inspected.

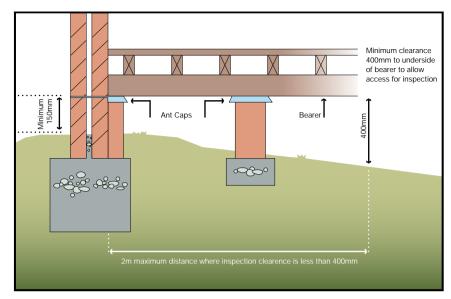
The traditional form of physical barrier is called the ANT CAP or TERMITE SHIELD and is used on homes that are built with raised or suspended TIMBER FLOORS. The ant caps are placed on the top of all piers or stumps and built into brick walls at the level of the underside of the floor frame to form a continuous barrier. This does not stop termites from getting into the home, but if they do, they have to expose themselves and their activity across the ant capping, where they can be clearly seen.

What if your home is constructed on a concrete slab on the ground? Different types of physical barriers can be used.

A STAINLESS STEEL MESH has been developed with a grid pattern that is small enough and strong enough to prevent termites from getting through into your home.



Be aware that some building contracts may try to shift the builder's liability for installing an appropriate termite barrier system to the owner. Be aware also that some contracts may try to get the owner to indemnify the builder in relation to claims for termite damage by a subsequent purchaser.



Ant Caps for suspended floors

Note: room for inspection and ventilation is necessary

Finely CRUSHED GRANITE can also be used as a physical barrier to stop termites from entering the home. Termites cannot make a pathway through the granite particles, nor can they eat them or move them out of the way.

Both of these barriers, the mesh and crushed granite, can be used as a complete barrier system under the concrete slab or they can be used as a partial system, at slab penetrations and joints, and around the perimeter of the building.

The CONCRETE SLAB itself can be used as a barrier to prevent termites entering the home, however a number of precautions will need to be taken:

The slab will need to be correctly designed and installed to meet
the requirements of the Australian Standard (AS 2870). Incorrectly
designed or installed concrete slabs can crack, and may allow passage
of termites through the slab, or the slab itself could contain hollows
where termites may breed.

- All penetrations (service pipes passing through the slab) will need to be protected by a physical barrier approved by your local council.
- The edges of the slab will need to be equally protected, or, alternatively, they will need to be exposed to view (minimum 75mm above finished ground level or finished paving level) to enable termite trails to be easily seen.

#### Termite resistant materials

Some Australian timbers are resistant to attack by termites, as are concrete, brick, steel and preservative treated timber. (Resistant timbers are listed in Australian Standard AS 3660.1.)

Use of such materials is not a termite-control system, and their use will not prevent termite attack on those parts of the home that are not made of these materials.

Nevertheless, use of termite resistant materials will help to reduce the extent of possible damage. To properly protect your home however, the builder must provide "whole of house" protection.

#### Minimum termite risk construction

As early as possible your designer or architect and your builder must look at all the conditions affecting your proposed home. These professionals must ensure the design and construction will minimise the risk of termite attack. Once they have a plan they can inform you about the options and the costs. Termite protection may be achieved by combining a number of methods. However, it is the responsibility of the builder to provide "whole of house" protection.

This requires an analysis of many factors including:

- examining the site and its drainage to see what types of physical and/or chemical barriers are appropriate
- providing for ease of inspection
- using termite resistant materials

- leaving undisturbed, trees and root systems that lie well away from the construction site (as these will be potential food for termites as opposed to your home)
- · removing tree roots and waste timber products from under your home
- ensuring that the area under raised timber floors remains dry and well ventilated.

# **Home inspections**

No system is perfect. Termite barriers are designed to prevent termites gaining hidden access from under buildings. The aim is to force termites out into the open so they can be seen. Termites can and do bridge (build their way around) barriers, so it is essential that you REGULARLY INSPECT your home for any evidence of termite activity. This is your responsibility as the home-owner. Prevention is better than cure!

How you inspect your home depends on whether it is built on a concrete slab-on-ground or on a suspended floor. Some systems may require regular professional inspections to maintain their warranties.

An ANNUAL inspection, whether it is done by a licensed pest controller or by yourself (if you know what to look for) should include:

- inspection of all potential entry points to timber structures
- inspection of all termite barriers for any bridging or breaching by termites, building trails of mud or 'galleries' across those barriers
- inspection around perimeter weepholes (the open vertical joints in the brickwork that allow water out) in brick walls just above concrete slabs or just below suspended floors
- inspection for wood and other possible food for termites around the perimeter of the concrete slab or under timber floors. (You should never stockpile timber or firewood under your home or near external walls.)



Please note that consumers have rights under statutory warranties when building work is done, and that these warranties must be stated in your contract. No conditions of contract can remove or reduce these rights.

### Landscaping considerations

Don't make it easy for termites to enter your home from the outside. Here are some tips on how to avoid providing conditions that suit termite activity.

- Don't attract termites by placing materials such as wood chips against your home.
- Avoid gardens alongside your home, especially if you have a chemical barrier at the perimeter. Normal gardening or use of topsoil may ruin the barrier.
- If you must have gardens alongside your home don't raise the beds above the existing ground level, especially with slab-on-ground construction. The ground level or finished paving level must be at least 75 mm below the damp-proof course line or the bottom of the weepholes. Never cover up the weepholes.
- Don't plant flowers or shrubs that will hide weepholes, vents in walls with timber floors or the exposed edge of concrete floor slabs.
- Areas under suspended floors should be well ventilated and dry. Don't close off sources of ventilation. Attend quickly to any leaking pipes or sources of dampness.
- Be aware that the later construction of unprotected additions such as carports, pergolas, porches, access ramps and steps to your home may allow termites to bridge an existing termite barrier. Even installing something like a new water heater on the outside of your home could damage the termite barrier or make it difficult to detect any future termite activity. Termite protection needs to be considered for all building work.
- Take care when selecting trees to plant. If you plant the wrong tree too close to your home, its roots may damage the termite barrier under or beside the concrete slab or cause the slab itself to crack.

It is important to check your contractual rights and liabilities.

If you are in any doubt, obtain independent professional advice.

# What if termites attack your home?

Don't delay. Act quickly to minimise the damage. Don't try to kill the termites yourself and certainly don't disturb the mud trails they have built. You could cause the termites to spread out, making eradication more difficult.

Advise your builder of the problem and see what they will do. You may have a warranty by the termite barrier supplier/installer.

If you have had regular pest inspections, check your last report and contact your pest controller. They should have professional indemnity insurance which may cover the damage.

Note: For residential building contracts in New South Wales signed on or after 1 May 1997 statutory warranties apply. If termite damage occurs to your home within 7 years of completion, and you consider it to result from a breach of these warranties, you should contact the Office of Fair Trading or the insurer named on the certificate of insurance attached to your building contract as soon as possible.

For contracts signed before 1 May 1997 the work may be covered by the Office of Fair Trading's insurance scheme. This scheme provides cover of 7 years from commencement of work for major structural damage and 3 years for general defects.

## In summary

The organochlorine chemicals commonly used as a termite barrier were banned in 1995. If you are about to build a new home or extend your existing home, it is vital that you look at all the options for termite control. Whichever options are chosen for your home, remember the following points:

- 1. Installing an effective termite protection system is, and must remain, the builder's responsibility.
- 2. Termite protection is something to think about NOW, not later, as it can affect the design of your home.

- 3. Each type of protection has advantages and disadvantages in COST and ENVIRONMENTAL IMPACT.
- 4. All systems of protection have one thing in common. They all need YOU to keep up regular INSPECTIONS of the home for any evidence of termite activity.

# Office of Fair Trading

The Office administers the *Home Building Act 1989*, (among other legislation) which requires:

- builders and trade contractors must be appropriately licensed for the work that they do
- contracts to be written, where the contract price exceeds \$1,000 (includes labour and materials)
- contractors to comply with statutory warranties relating to completion and standard of work
- home warranty insurance for residential work costing more than \$12,000, to protect owners against breach of statutory warranties.

#### **Further information**

For any further information about any of the issues raised here, you may wish to contact the following agencies:

Office of Fair Trading on 13 32 20 www.fairtrading.nsw.gov.au

#### Australian Consumers' Association

57 Carrington Road, Marrickville NSW 2204. Ph. (02) 9577 3399 www.choice.com.au

#### **Australian Institute of Building Surveyors**

Suite 6, 2 East Street, Five Dock NSW 2046.

Ph. (02) 9712 8822 www.aibs.com.au

#### Australian Pesticides and Veterinary Medicines Authority (APVMA)

John Curtin House, 22 Brisbane Ave, Barton ACT 2600.

Ph.(02) 6272 5158 www.apvma.gov.au

#### Hazardous Activities Unit of WorkCover NSW

92-100 Donnison Street, Gosford NSW 2250 or

Locked bag 2906, Lizarow 2252.

Ph (02) 4321 5000 or 13 10 50 www.workcover.nsw.gov.au

#### **NSW Department of Agriculture**

Agriculture Institute, Orange NSW 2800.

Ph. 1800 675 821 www.agric.nsw.gov.au

#### Standards Australia

286 Sussex Street (cnr Bathurst), Sydney 2000.

Ph. (02) 8206 6000 or 1300 65 46 46 www.standards.com.au

#### **Timber Development Association of NSW**

29 Nichols Street, Surry Hills NSW 2010.

Ph. (02) 8303 0577 Advisory line or 9360 3088 www.timber.net.au

#### **Total Environment Centre**

Level 2, 362 Kent Street, Sydney NSW 2000.

Ph. (02) 9299 5599 www.tec.org.au

Your local council

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# 1300 554 668

For help on any fair trading issue call your nearest Fair Trading Centre, or call the specialist service listed below which is relevant to your inquiry. A range of Fair Trading services are also available via Government Access Centres (GACs) and other agency locations throughout regional New South Wales. For details, visit the Web site www.fairtrading.nsw.gov.au

# Fair Trading Centre locations

Albury Armidale Bathurst Blacktown Broken Hill Coffs Harbour Dubbo

Gosford Grafton Hurstville

Lismore Liverpool

Newcastle

Orange

Parramatta Penrith

Penriin D---t M

Port Macquarie Queanbeyan

Sydney

Tamworth

Tweed Heads Wagga Wagga

Wollongong

#### Fair Trading Centres - call 13 32 20 for general enquiries

#### **Specialist Service**

TTY .......9338 4943 Telephone service for the hearing impaired.

#### Language assistance

Tel. 13 14 50 Ask for an interpreter in your language.

# Visit the Home Building Service Web site www.fairtrading.nsw.gov.au/building

where you can:

- search the public register on-line to see if a contractor's licence is valid and current before entering into a contract, and
- find helpful information for homeowners, builders and tradespeople on home building matters.

Office of Fair Trading 1 Fitzwilliam Street Parramatta NSW 2150 PO Box 972 Parramatta NSW 2124 Tel. 9895 0111

# www.fairtrading.nsw.gov.au

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