



it's not worth the risk!

ASBESTUS 101 for Residential Property Owners, Managers & Tradies.

November 2023

Asbestos 101 for Residential Property Owners, Managers and Tradies is an education resource developed by Advocacy Australia's Asbestos Education Committee for asbestosawareness.com.au







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Who should use this Asbestos 101 resource?

- Solution Aspestos 101 for Residential Property Owners, Managers and Tradies was developed to provide ANYONE who might be planning to undertake maintenance, renovations or who may be required to conduct or manage work on residential properties.
- ◎ Those who should use this resource include:
 - Anyone who owns a residential property that was built or renovated before 1990.
 - Momeowners, renovators and DYlers.
 - S Tradies, labourers, handymen, handywomen and any employees of contractors.
 - S Anyone who undertakes maintenance on residential properties.
 - Installers of new products such as kitchens, bathrooms, air-conditioning, floorcoverings, roofing, electrical, plumbing etc..
 - Property managers responsible for the maintenance of residential properties.
 - Sural or regional property owners or managers with farm structures or sheds.

PLEASE NOTE: This is an education resource only - not a formal training program. Those required to undertake Asbestos Awareness training should do so via an accredited training organisation.



Why is asbestos awareness so important for residential property owners, managers and tradies?

- C Thousands of types of asbestos-containing materials (ACMs) remain hidden in one third of Australian homes including brick, weatherboard, Fibro, clad homes and apartments built or renovated before 1990.
- ACMs can also be in other structures in and around homes such as garages, sheds, fences, outdoor toilets and even dog kennels it could be anywhere.
- In rural and regional communities ACMs can also be found in a wide range of structures including homes, water tanks and sheds.
- O Homeowners, property managers, tradies, workers and handymen who renovate properties built before 1990 can expect to encounter asbestos-containing materials (ACMs) when renovating homes.
- ◎ If property owners and workers don't know what to look for or how to manage asbestos safely, they risk disturbing asbestos.
- © If damaged or disturbed during work or demolition, asbestos fibres can be released into the air and be inhaled.
- ◎ If fibres are inhaled by anyone exposed to the fibres, it could lead to asbestos-related diseases.



Why should homeowners, property managers and workers respect asbestos and take the warnings seriously?

- O Australia has one of the highest incidences of asbestos-related diseases in the world.
- ◎ An estimated 4,000 Australians die of asbestos-related diseases every year.
- O Deaths are predicted to rise if people ignore the risks when working with ACMs.
- O Homeowners, renovators, property managers and tradespersons risk disturbing asbestos when renovations and maintenance occurs if materials containing asbestos are present.

It's vital that anyone who conducts work on any residential property (or yard structure) built prior to 1990 respects asbestos because it's not worth the risk!



it's not worth the risk!



Definitions & Abbreviations

A number of terms and abbreviations are used throughout this resource so it's important to familiarise yourself with the following:

- **ACMs** Asbestos Containing Materials are a range of products that contain asbestos.
- AC Asbestos Cement is a range of products made using asbestos, sand and cement, bound together in sheets. Examples of AC include pipes, gutters, cornices, mouldings, architrave and joinery strips. When unbroken and bound within the solid material, asbestos fibres cannot become airborne.
- AC Sheeting Asbestos Cement Sheeting may be flat or corrugated. Examples of AC sheeting include flat or corrugated wall and roof sheeting.
- **Competent Person** Is someone who has acquired, through training, qualification or experience, the knowledge and skills to carry out the task.
- **PCBU** Person Conducting a Business or Undertaking

Legacy Asbestos – Asbestos and ACMs are sometimes referred to as 'legacy asbestos' because they have been left behind in the built environment or other locations where asbestos may have been manufactured.

- WH&S Work Health and Safety
- PPE Personal Protective Equipment
- Licenced Asbestos Assessor or Removalist Highly experienced asbestos professional licenced by their state or territory government to undertake activities related to Class A removal work.
- NATA National Association of Testing Authorities Only NATA accredited laboratories should test for asbestos. To locate a NATA laboratory call 1800 621 666 (free call) or visit nata.com.au

SECTION 1. About Asbestos

What is asbestos?

- The word 'asbestos' comes from the Greek meaning 'inextinguishable' or 'indestructible' possibly because of its strength, flexibility, insulation, heat and water resistant properties.
- Asbestos is a group of naturally occurring minerals made up of microscopic fibres that readily separate into long flexible fibres.
- It occurs naturally in some rocks, sediments and soils globally and throughout Australia.
- O Asbestos in its natural form is not easily identified.
- ◎ The earliest records of asbestos use globally dates back over 4,000 years.
- Mined by slaves for the Greeks and Romans, even then people knew of the health implications when mining or working with asbestos. Asbestos-related disease was known as 'sickness of the lungs' causing a high number of deaths among enslaved workers.





Types of natural occurring asbestos

O Asbestos can be:

- Solution White (Chrysotile, Tremolite and Actinolite),
- Slue (Crocidolite)
- Solution Stream (Amosite) Or
- Since (Anthophyllite, Tremolite and Actinolite).



Green - Actinolite



Green - Anthrophylite



Brown - Amosite



Blue - Crocidolite



White - Chrysotile (TUMUT Area)



White - Tremolite (Guyong & Eden)

Asbestos mining in Australia

- Solution Associate Association of the second structure of the second struct
- ◎ In that time almost 750,000 tonnes of asbestos was mined in Australia.
- Mining occurred in 4 Australian states: Western Australia (6 locations), NSW (5), and to a lesser degree, South Australia (4) and Tasmania (2).
- In other parts of the world asbestos is still being mined and used in the manufacture of products despite advocate calling for bans.
- In Australia a complete ban on asbestos mining, manufacturing and importing of ACMs came into force on 31 December 2003.
- Laws were introduced to protect workers, property managers and homeowners when working on structures that may contain legacy asbestos.



Wittenoon asbestos mine Western Australia 1980



Canadian asbestos mine 2000's

When was asbestos used in the manufacture of building products in Australia?

- Asbestos was first used in manufacturing building materials in Australia in the 1920s.
- AC sheeting (Fibro) was considered an adaptable, cost-effective building material more durable than timber and cheaper than masonry.
- © Fibro was marketed as fireproof, durable, easily transportable and suitable for hot climates.
- O Asbestos was also used in the manufacture of thousands of other types of building products.
- © "Super Six" corrugated roofing became known as 'the great Australian roof'.
- From the mid-1940s to the mid-1980s asbestos was used in manufacturing thousands of different types of building materials and decorator products that can still be found in 1-in-3 Australian homes and in commercial and non-residential structures today.



1949 The Australian Home Beautiful Wunderlich 'Durasbestos' ad.

Asbestos Advertising





1989 James Hardie Villaboard TVC with Michael Crawford https://youtu.be/kYy7OphOjRA 1978 James Hardie HardiplankTVC https://youtu.be/cbn-gagRMtQ

Why was asbestos popular in housing construction?

- AC sheeting (Fibro) and roofing was a cheap building material that was easy and fast to use.
- © This made it an appealing material to build homes in the post WWII housing boom from 1945 until the late 1960s.
- Second From around 1947, with increased car ownership, Fibro was often used to build garages and car ports.
- In older homes (Victorian Terraces, Federation homes etc.) ACMs may have been introduced during kitchen and bathroom renovations or when adding extensions.
- Owner builders and rural builders used Fibro to build holiday houses, shacks and sheds.
- ◎ Handymen used Fibro to build home extensions, especially verandahs.
- ◎ ACMs were USED EVERYWHERE!



When was asbestos banned in Australia?

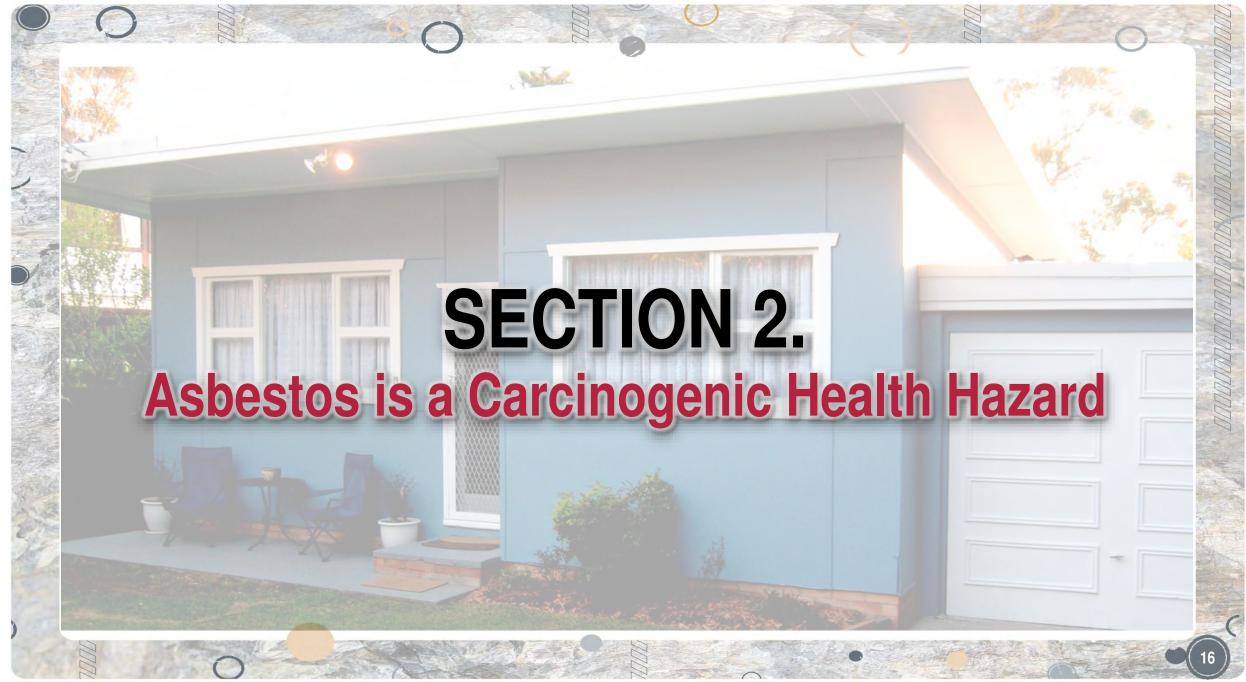
- ◎ ACMs were phased out during the 1980s.
- ◎ Importing blue and brown asbestos and ACMs was banned in the mid-1980s.
- Igentiation 1990 is considered by Australian government departments to be the latest year when ACMs may have been introduced to residential properties.
- A total ban on the manufacture, supply, use, reuse, import, transport, storage and sale of all forms of asbestos came into force in Australia on the 31 December 2003.

If asbestos was banned in Australia in 2003, why are homeowners & workers at risk today?

- O Australia was among the highest consumers of asbestos globally!
- Tonnes of legacy asbestos remain in residential, non-residential and commercial buildings and structures.
- If asbestos and ACMs are not managed safely, they will continue to cause life-threatening asbestosrelated diseases.



Bernie Banton AM



What are the "Three Waves"?

- © Illness and death caused by asbestos has been recorded in Australia since the 1930s.
- Since then, the impact on the health of Australians has become known as the "Three Waves" of asbestos-related diseases:
 - The First Wave impacted miners, mill, transport and wharf workers who handled raw asbestos.
 - The Second Wave impacted worker in the production and installation of ACMs.
 - The Third Wave NOW impacts those exposed to asbestos fibres in workplaces, homes and other built environments during maintenance, renovation and demolition of buildings and ACM structures.
- When asbestos is disturbed in its natural form (in some rural landscapes) or in any material that contains asbestos, dangerous fine particles of dust containing fibres can be released and become airborne.
- Once airborne, asbestos fibres can be inhaled or settle on clothing, equipment, materials and products where they can easily become airborne again and be inhaled.
- © The risk of developing asbestos-related diseases increases with the number of fibres inhaled and the length of time that fibres are inhaled (the number of years exposed).



First Wave: e.g Wharfies1940s Image courtesy State Library of NSW



Second Wave: Workers 1970s Image courtesy Mitchell Library, State Library of NSW

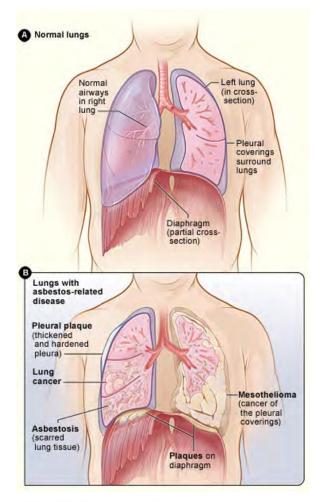


Third Wave: Home renovators & tradies

How can inhaling fibres be harmful to your health?

If asbestos isn't managed safely in accordance with regulations and ACMs are disturbed:

- Is Breathing dust containing asbestos fibres can cause life-threatening asbestosrelated diseases including asbestosis, lung cancer and malignant mesothelioma.
- Mesothelioma is a cancer which most often occurs in the lining of the lung. There
 is no cure.
- The average time between exposure and developing mesothelioma can be 33 to 44 years.
- In recent times exposure to asbestos fibres has also been linked to ovarian and laryngeal (voice box) cancer with evidence suggesting it may increase the risk of other cancers such as breast, stomach and colon cancer.
- O To prevent asbestos-related diseases, property owners, managers, tradies and anyone who conducts work on residential properties MUST ensure they manage asbestos safely to avoid exposure to asbestos fibres.



Exploding the myths of working with asbestos

Can ignoring the warnings be harmful to health?

• Yes! Ignoring the warnings about asbestos can be harmful to the health of anyone exposed to fibres.

- Some older tradies and workers who have worked with asbestos in the past persist in ignoring the warnings and continue to take risks when working with asbestos.
- © Everyone working where asbestos has been identified or is suspected **MUST** manage asbestos according to regulations!
- Renovators, property owners, managers, tradies and workers must know that it's NOT okay to take risks when working with asbestos.

HAZARI

Video: DIYers & Tradies must be Asbestos Aware!



LINDSAY WALL'S ASBESTOS WARNING TO TRADIES https://youtu.be/LBePOQyu3SE

It's okay for workers to say NO!

Every homeowner and worker has the right to remain safe and has the responsibility to respect asbestos and manage it safely to protect themselves and others.

- If asbestos has been identified on a property and workers are asked to perform a task involving ACMs that they believe is unsafe, they can say NO!
- If workers believe the work is unsafe, they should talk to their supervisor, boss or their WH&S representative immediately about their concerns.
- If their boss or others won't listen or they feel they can't talk to them, they have a responsibility to themselves and their families to stay safe!
- Workers should not put their health at risk! Workers in NSW can use the Speak Up app to anonymously report their concerns <u>speakup.safework.nsw.gov.au</u> or call 131050
- ◎ Workers in other states and territories should contact their regulator.
- O Homeowners who suspect asbestos is not being managed safely by workers, should contact their local Council and/or regulator in their state or territory.
- O To locate a regulator visit <u>https://asbestosawareness.com.au/useful-links/</u>





SECTION 4. Types of asbestos used in construction that may be found in homes & other structures

What types of asbestos were used in construction?

There are two types of asbestos materials that were common in construction: "non-friable" and "friable".

O NON-FRIABLE ASBESTOS (also known as 'bonded' ACMs):

- Is material containing asbestos that is not friable asbestos, including material containing asbestos fibres reinforced with a bonding compound such as Fibro.
- Non-friable asbestos cannot be crumbled, pulverised or reduced to a powder by hand pressure when dry.
- Products containing non-friable asbestos can be found in one third of Australian homes.

O Is non-friable asbestos a hazard?

- Non-Friable ACMs are unlikely to release dangerous fibres posing health risks if they remain sealed, in good, stable condition and remain undisturbed.
- Non-friable ACMs do not need to be removed unless they are damaged or during refurbishment or demolition.

IMPORTANT: Non-friable asbestos **CAN BECOME FRIABLE** if it is damaged, unsealed and exposed to weather!



Non-friable: Residential AC sheeting and moulded joining strips



Unsealed: Commercial AC sheeting (exterior), flashing and drain pipes

FRIABLE ASBESTOS

Friable asbestos is extremely hazardous because the fibres are uncontained and can easily become airborne!

- Section Friable asbestos is any material containing asbestos in the form of a powder or can be crumbled, pulverised or reduced to powder by hand pressure when dry.
- Friable asbestos was mainly used in industrial applications and commercial or nonresidential structures but may also have been used in residential properties.
- © Examples of friable asbestos use include:
 - Sire retardants sprayed coatings on walls and beams including steel.
 - Insulation sprayed in building cavities.
 - Loose asbestos in ceiling or floor and rise cavities and roof spaces.
 - Textured coatings sprayed onto ceilings.
 - Pipe lagging and mill board in air conditioning heater banks and hot water system components.

IMPORTANT: ONLY Class A Licenced Asbestos Removalists can remove friable asbestos!



Friable: woven cable bandages



Friable: Insulation within fire doors



Friable: linsulation in an electrical fuse housing

Loose-fill (Mr Fluffy) asbestos

- Coose-fill asbestos is friable and was used as insulation in ceilings in some homes in NSW and the ACT between 1968 and 1979.
- Made of crushed, loose (friable) asbestos, it was pumped (or spread) into ceiling space as insulation.
- ◎ If disturbed it could migrate to wall cavities and sub-floor areas.
- The risk of exposure to asbestos in buildings containing loose fill asbestos is likely to be low if undisturbed and sealed off.

IMPORTANT: Some homes in NSW or the ACT may contain loose fill asbestos in the ceiling space. Check with, <u>NSW Fair Trading</u> or the <u>A.C.T. Government</u> – Loose Fill Asbestos Taskforce to check if the house is located in a Mr Fluffy affected Council region.



Mr Fluffy: loose fill asbestos insulation Image: ACT Asbestos Taskforce



Mr Fluffy: loose fill asbestos insulation Image: SafeWork NSW

When does non-friable asbestos become a friable hazard?

- Non-friable asbestos (commonly used in homes) can become a friable hazard when ACMs are damaged or disturbed or if they are not managed safely according to regulations.
- ◎ ACMs can become friable:
 - Solution of the second seco
 - if damaged, unsealed and exposed to weather; or
 - if damaged by fire, hail, floods or storms; or
 - If high pressure water or compressed air is applied to the ACM material.
- If damaged, ACMs must be assessed by a competent person or a licenced asbestos assessor to determine the risk.

IMPORTANT: Fire damaged ACMs are extremely dangerous!



AC Sheeting: Unsealed or left to weather, bonded asbestos will become friable. Image: Asbestos Awareness



Fire Damaged ACMs Image: Townsville Asbestos

SECTION 5. Asbestos Awareness requirements for workers & Licenced Asbestos Assessors & Removalists

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ASBESTOS REMOVAL IN PROGRESS

DO NOT ENTER

Tradies and workers most likely to come into contact or disturb asbestos should be trained in Asbestos Awareness including:

- Bricklayers \bigcirc
- Builders \bigcirc
- Building construction and civil construction workers
- Building maintenance workers O
- © Carpenters
- Demolition workers \bigcirc
- Electricians \bigcirc
- Farmers & farmhands in rural areas
- Ø Fencers
- Gas fitters \bigcirc
- Heating and air conditioning installers and maintenance workers

- © Home handymen
- ◎ Installers of external cladding
- those removing old kitchens and bathrooms.
- ◎ Installers of solar panels
- Insulation installers
- O Joiners
- Landscapers (buried asbestos or NOA in
 regions where NOA has been identified)
- O Layers of floor covering and floor sanders (stripping carpets)
- O Painters and wallpaper hangers

- O Plumbers and drainers
- Roof and guttering installers
- ◎ Installers of kitchens and bathrooms and ◎ Rubbish removalists (asbestos illegally placed in bins)
 - Telecommunications technicians (installing cabling)
 - Tilers
 - O Waste disposal facility workers (green) waste and recycling waste can sometimes contain asbestos) and land fill operators

Must asbestos removal workers be trained?

- VES! Employers of workers have a responsibility to ensure workers are fully trained in managing asbestos safely in line with regulations.
- Workers involved in asbestos removal in the workplace or who carry out ANY asbestos-related work such as maintenance or demolition in a workplace that may contain asbestos must be trained in the identification, safe handling and suitable control measures for asbestos and ACM.
- The PCBU must provide workers with suitable and adequate information, training, instruction, equipment and supervision to ensure workers understand the nature of the risks associated with asbestos and the procedures required to manage asbestos safely in accordance with regulations.
- Records of training undertaken by workers must be maintained and retained for five years after employment has ceased.
- If a property was built before 1990 and a major renovation is to be undertaken such as a kitchen or bathroom, property owners and managers should check with the contractor to ensure workers have been trained in Asbestos Awareness.





Are employers required to ensure workers remain safe around asbestos?

YES! When conducting a renovation such as demolishing and replacing a kitchen or bathroom, the PCBU managing the job must ensure that any workers who may be involved in asbestos removal or in carrying out asbestos-related work are trained in the identification, safe handling and suitable control measures for asbestos.

Employers are also required to supply workers with asbestos grade PPE.







Who can assess asbestos risks?

A licenced asbestos assessor or removalist, or an occupational hygienist can assess if a material contains asbestos. The only way to confirm if a material contains asbestos is to have a sample tested by a NATA accredited laboratory.



Do workers need a licence to work with asbestos?



Issued under the Work Health and Safety Regulation 2011 (NSW). This licence is not transferable.
Licence: SAMPLE 12345
Licence period: From: 03/07/2014 To:
Licence holder name: JOHN SAMPLE ASBESTOS REMOVAL PTY LTD
ABN: SAMPLE 1 2345 6789
ACN: SAMPLE 1 2345 6789
Address: LOT A, & ASBESTOS REMOVAL WAY
ASBESTOS VILLE NSW 0000
Description of the work that can be undertaken under this licence
• Non friable asbestos removal work
Licence holder obligations
A nominated supervisor must be readily available to attend the site when licenced non friable asbestos removal work
This licence must be available for inspecients at all times.
All licence must be available for inspecients at all times.
All licence holder must notify SateWork NSW in writing of any changes to the licence or supervisor details within 14

Licence requirements can vary between each state and territory.

In some states some workers trained in Asbestos Awareness and Management may work with or remove small amounts of asbestos (less than 10 square metres of non-friable asbestos), however:

◎ The removal of ACMs **should be done** by licenced asbestos removalists

O The cost of using a licenced asbestos removalist is comparable to using other licenced tradespersons

IMPORTANT: If you engage a licenced asbestos removalist, confirm the contractor has the appropriate class of licence for the asbestos removal job and ask for a copy of their licence prior to engaging them.

For more information, contact the regulator in your state or territory.

https://asbestosawareness.com.au/asbestos-removal/licenced-removalists/

Who can remove and dispose of asbestos safely?

◎ There are 2 types of Asbestos Removal Licences - Class A and Class B.

- Class A Licence: can remove ALL types of asbestos including friable material.
- Sclass B Licence: can ONLY remove non-friable (solid) asbestos materials (such as Fibro).

◎ It is recommended homeowners ONLY use licenced asbestos removalists to remove ACMs.

- The cost of a licenced professional usually includes safe removal and disposal at authorised waste depots.
- Substraining with the second secon
- The cost of safe removal of asbestos by a professional is dependent on a variety of factors.
- There are legal requirements for asbestos management, removal and disposal which can vary from state-to-state.
- To locate a licenced asbestos removalist or check with Council or state and territory authorities for requirements, visit <u>asbestosawareness.com.au</u>

Can homeowners or workers remove asbestos themselves?

© Laws vary in each Australian state and territory.

- In some states it is legal to remove up to 10 square metres (about the size of a small bathroom) of bonded (non-friable) asbestos BUT IT'S NOT RECOMMENDED!
- ◎ Any areas of bonded asbestos greater than 10 square metres **MUST** be removed by a licenced asbestos removalist.

IMPORTANT: It is illegal for anyone OTHER THAN an A Class Licence holder to remove friable asbestos!

The laws about asbestos management and removal are enforced. Severe penalties apply!

- ◎ The Work Health & Safety Act 2011 (WH&S)
- © The Work Health and Safety Regulations 2017

© The Codes of Practice; How to manage and Control Asbestos in the Workplace and How to Safely Remove Asbestos

IMPORTANT: Asbestos laws exist to prevent people exposing themselves or others to hazardous asbestos fibres.

SECTION 6. Asbestos in Residential Properties

What ACMs are found in residential properties?

Asbestos can be found anywhere in residential properties built or renovated prior to 1990.







Fence Insulation for hot water pipes and tank Loose fill insulation in roof cavity Corrugated Dog kennel & animal enclosures asbestos-cement roofing Sheds & external toilets Ridge capping Splashback Eaves and Internal angle mouldings gables ends Backing of vinyl floor Garage sheeting & lino tiles Flues to fireplaces Insulation below wood heater Backing for electrical meter boards Internal & external ventilators Downpipes Gutters "Tilux" marble finish wall panel Compressed asbestos sheet cement flooring External angle mouldings Internal walls & ceilings & behind wall paper Carpet underlay and adhesives Wall sheeting exterior (potentially under cladding)







OTHER Brake and clutch linings Buried and dumped waste materials Naturally occurring asbestos in certain regions

How common is asbestos in Australian homes?

- ◎ 1-in-3 homes contains asbestos including brick, weatherboard, Fibro, clad homes and apartments.
- ◎ **Prior to 1990**, asbestos was widely used in a range of building and decorator materials.
- ◎ If a dwelling was built or renovated prior to 1990, it most likely contains asbestos in some form or another.



What is the likelihood of finding ACMs in homes?

- O Asbestos was used in the manufacture of more than 3000 types of building and decorator products!
- ◎ If a home or any other residential structure (garages, fences etc.) were built or renovated:
 - before 1987 ACMs are 'highly likely'
 - between 1987 and 1990 ACMs are 'likely'
 - Solution States Sta

What other types of residential property structures might contain asbestos?

- Asbestos was commonly used to build outdoor toilets, garages, carports, sheds and even dog kennels.
- $\ensuremath{\mathbb{O}}$ It was also used to build fences and may have been used as formwork for footings.
- \odot Asbestos was sometimes mixed with cement and could be wherever cement was used in construction.
- \odot In regional and rural areas, it was common to use Fibro to build sheds for stock and storage.



Common uses of ACMs in residential properties

- © Fibro (flat and corrugated) internal walls and ceilings
- Fibro (flat and corrugated) external walls and cladding, eaves, infill panels in windows and doors
- Fibro (flat and corrugated) garages, outside toilets, carports, backyard sheds and dog kennels
- © Roofing (corrugated) and roofing shingles
- © Fencing (flat and corrugated)
- O Flat sheeting under floor tiles
- © Bathroom and laundry walls and kitchen splash backs
- © Electrical switchboards
- Backing to vinyl floor tiles and sheet vinyl floor coverings
 Carpet underlay

© Backing behind ceramic wall tiles

- © Water drainage, downpipes and guttering
- In some homes in NSW and ACT, loose-fill asbestos was used in ceiling space as insulation.
- Garden beds During construction it was common practice for workers to bury broken pieces of asbestos materials on building sites which can now be exposed when digging, gardening or redeveloping properties or land.
- PLEASE NOTE: for common locations and images of a ranges of ACMS that can be found in homes built before 1990 visit the Asbestos Product Database

https://asbestosawareness.com.au/asbestos-productsdatabase/

What are the most common ACMs used in the construction of residential properties?

◎ Flat and corrugated AC sheeting (Fibro) was commonly used in the construction of homes.

© Corrugated AC sheeting was also used as roofing including "Super Six' which was sometimes used to construct fences.

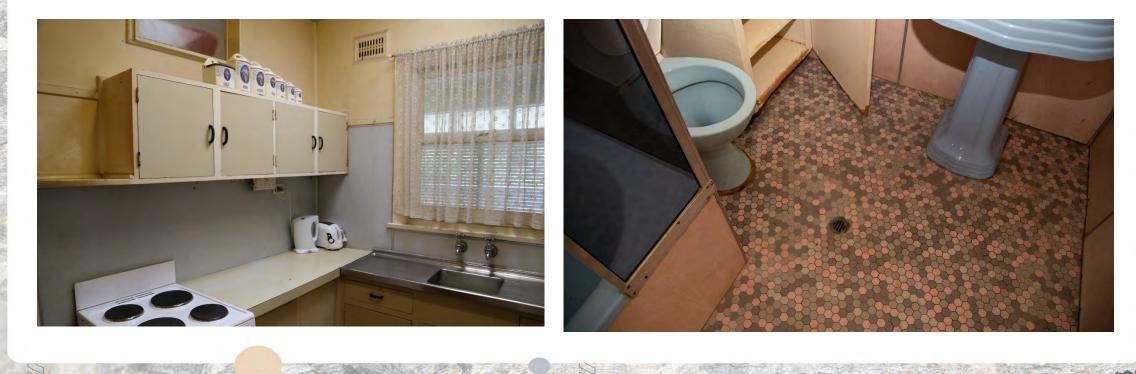


[©] Asbestos Awareness & Asbestos Education Committee 2023. Not for commercial use.

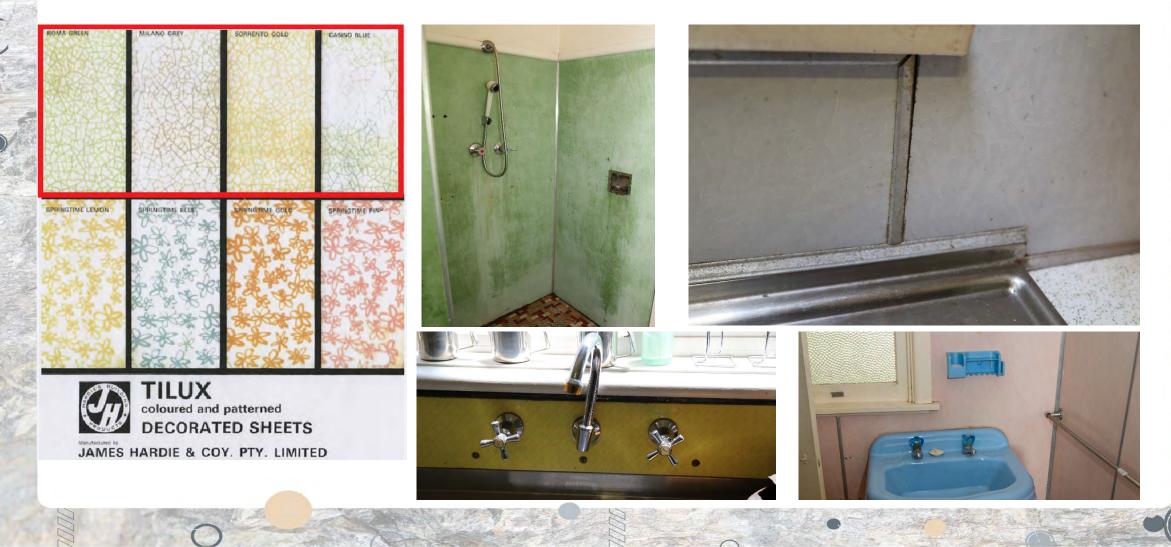
Some ACM products commonly used

◎ AC sheeting <u>was not the only ACM</u> used in building homes. ACMs were commonly used:

- In wet areas including kitchens, bathrooms and laundries; and,
- s as insulation for heating in wood heaters, stoves, sheeting under hearths, flue pipes and textile seals of ovens.



Tilux in bathrooms, laundries & kitchens



Other common asbestos locations in homes



Fireplaces: under hearths



Artificial "fake" brick





Household asbestos hazards

Broken AC Sheets (fibro) Internal



Unsealed & broken sheeting

Friable rope around hot water pipe

HAZARD





Broken & weathered AC sheets



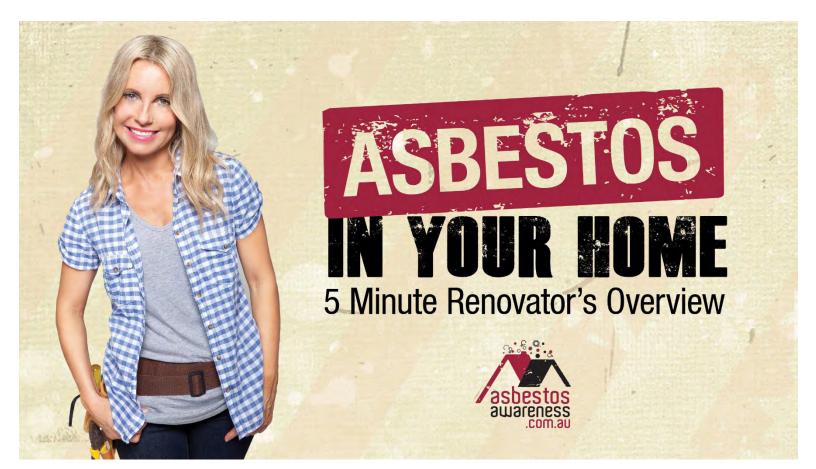


Should ACMs be removed from residential properties?

- ACMs don't need to be removed if they remain sealed, undisturbed and in good condition!
- If sealed, in good, stable condition and free from holes and cracks, ACMs are unlikely to release dangerous fibres and pose health risks.
- O Unless disturbed, damaged or deteriorated, it's best to leave ACMs alone.
- ◎ ACMs should be checked regularly for any deterioration.
- If damaged, ACMs should be removed by a licenced asbestos removalist.
- It's best to remove old ACM roofing but only use a licenced asbestos removalist.



Asbestos In Your Home – A Renovators Overview 5mins



Note: This is the 5 minute version. For complete <u>14 minute version</u> visit <u>https://vimeo.com/147058660</u>

Conduct a visual inspection of residential properties to help identify risks

Although only scientific testing can confirm if asbestos is present; a visual inspection can be conducted by homeowners by looking at the various areas where ACMs might be expected.

- Sefore starting home maintenance or renovations, home owners can record the various locations of possible ACMs by conducting a visual inspection using the free <u>Asbestos Awareness Residential</u> <u>Property Checklist – A Homeowner's Guide to Identifying</u> <u>Asbestos-Containing Materials</u>
- © Tradies can also conduct a visual inspection using the free <u>Total</u> <u>Property Residential Asbestos Checklist for Tradies</u>
- The Checklists are user-friendly, step-by-step guide of the sorts of ACMs to look for and their possible locations. NOTE: the Checklists are not an Asbestos Register or Management Plan! They do not replace the scientific testing required to confirm if asbestos is present.



SECTION 7. Asbestos in Rural & Regional Homes & Properties

Asbestos is common on rural and regional properties

It's not only residential buildings built or renovated before 1990 that could contain ACMs.

- ◎ Any structure that might be located in rural and regional properties may contain asbestos.
- © Fibro was commonly used to build 'weekenders' or 'shacks' in the bush and coastal regions.
- © Farm structures including sheds and barns were constructed from Fibro to house equipment and stock.
- Sibro was widely used to construct 'sleep-out' additions to farmhouses, workers accommodation for shearers and farmhands, outhouses and water tanks.
- ◎ ACM water pipes were used for irrigation and drainage.
- © Fibro was also commonly used to build community housing throughout much of regional Australia.



What are some of the asbestos hazards in rural and regional communities?

- O Abandoned homes and farm structures that may be damaged, neglected or unpainted.
- O Dumped asbestos materials.
- Naturally Occurring Asbestos (NOA) in areas where NOA has been identified.





Abandoned, broken structure



Old Outhouse



Peeling paint: unsealed



Abandoned, broken house



Dumped, broken AC debris

SECTION 8. What renovators & workers needs to know to ensure asbestos is managed safely

Assessing the property for asbestos

- ◎ You can't tell if a material contains asbestos just by looking at it.
- If asbestos is suspected in a residential property anyone conducting work including homeowners, tradies, workers and renovators should assume asbestos is present and take every precaution.
- If the property was built before 1990 be safe and engage an occupational hygienist or a licenced asbestos assessor to conduct an assessment.
- They will come to your property, take samples and have them tested by a laboratory and provide you with a report.
- If asbestos is confirmed and it needs to be removed only use licenced asbestos removalists.

IMPORTANT: The ONLY way to be sure if asbestos is present is to have an assessment of the property conducted with samples tested by a NATA accredited laboratory.

What steps must workers take if they come across materials they suspect are asbestos?

- TREAT every suspected ACM as if it is asbestos and take all the required precautions including:
- ◎ **DO NOT DISTURB** or handle it.
- ◎ **LEAVE IT** where you find it.

- © **REPORT IT IMMEDIATELY** to the PCBU on the worksite.
- MAINTAIN A RECORD of the location and condition of the material to prevent future disturbance.

Risk management of unexpected asbestos finds

Most asbestos incidents happen when somebody disturbs asbestos because it hasn't been identified or suspected. These incidents are often:

© uncontrolled

- © around unprotected persons
- ◎ not properly acted upon

What procedures must workers take to manage unexpected asbestos finds or incidents i.e. if ACMs are disturbed accidentally

© WORKERS MUST STOP WORK IMMEDIATELY!

- Immediately report the incident to a site manager.
- O Minimise disturbance of the material and area.
- Inform anyone on site to prevent access until the hazard has been contained.
- Set up an exclusion zone using barricades and warning signs restricting access to the contaminated area.
- Consult a licensed asbestos assessor or occupational hygienist to provide immediate advice on making the area safe. Advice on decontamination and disposal of clothing (as asbestos waste) should also be obtained.

- Report the incident by contacting Council and the regulator in your state or territory <u>https://asbestosawareness.com.au/useful-links/</u>
- O Contact a licensed asbestos removalist to undertake removal and remediation works at the contaminated area.
- Those exposed to asbestos must <u>undertake Health</u> <u>monitoring</u> or be supervised by a registered medical practitioner experienced in health monitoring as soon as practical after the exposure.
- O Anyone exposed to asbestos fibres should register their details on the <u>National Asbestos Exposure</u> <u>Register.</u>

SECTION 9. Safe Work Asbestos Practices

Safe work practices with asbestos



If you need to do small jobs to repair or remove small amounts of asbestos, you must take all the required precautions and follow the regulations to ensure you work safely with asbestos.

Important things to do when working with asbestos

- PLAN your job in advance so you have all the necessary equipment on hand.
- ✓ WEAR Personal Protective Equipment (PPE) at all times.
- ENSURE no electrical wiring or electrical products are in the work area.
- PREPARE your equipment and work area before you start.
- ✓ ONLY wear old clothes under coveralls. These should be disposed of when the job is completed.
- **COVER** removal area in 200um plastic drop sheets to catch any fibres, dust and debris.
- WET the area that contains asbestos using a gentle mist spray of water before commencement. Detergent added to the water helps improve absorption or a mix of 1 part PVA glue to 5 parts water will help bond the material to minimise any dust.
- CONTINUE wetting asbestos that is exposed If you can see it, wet it!
- SPRAY using a spray bottle to wet smaller areas.
- LOW-PRESSURE constant spray mist using a garden hose with a mist nozzle can be used to wet larger areas outdoors such as external walls or fences.
- MINIMISE the number of people in the work area.
- **DECONTAMINATE** yourself, the work area and equipment when work is completed.

What must property owners, managers or workers NEVER do with ACMs?



If asbestos has been identified or is suspected in a residential property; **Don't cut it! Don't drill it! Don't sand it! Don't saw it! Don't scrape it! Don't scrub it! Don't dismantle it! Don't tip it! Don't waterblast it! And whatever you do, don't dump it!**"

- **× NEVER CREATE** dust.
- **× NEVER BREAK** asbestos sheeting.
- **× NEVER WORK** in windy conditions.



- NEVER USE POWER TOOLS OR EQUIPMENT that can produce dust unless you follow the recommended best practice industry guidelines.
- **× NEVER USE BROOMS OR BRUSHES** except for sealing if using paint or a PVA glue solution.
- NEVER USE HIGH PRESSURE water spray on ANY asbestos product including walls, fences and roofing.



- NEVER USE HOUSEHOLD VACUUM CLEANERS. Only special H Class Asbestos vacuum cleaners are used by licenced removalists to collect dry asbestos dust and debris.
- NEVER WORK ON DRY OR FRIABLE ASBESTOS. For areas that can't be wet down prior to removal, engage a licenced asbestos removalist.
- * NEVER WET ANY AREA THAT MAY CONTAIN ELECTRICAL wiring or equipment that may be connected to electricity such as household goods (fridges), tools etc.







Checklist for workers to work safely with asbestos in residential properties

- ◎ HOMEOWNERS SHOULD BE INFORMED in advance before asbestos work commences.
- ◎ **HOMEOWNERS** should remove washing from clotheslines.
- © **REMOVE PETS** and pet bowls from work area.
- © **ENSURE** no one else is near the area where work is being conducted in unless they're wearing PPE.
- © CLOSE all doors and windows to prevent drafts.
- © **TURN OFF** all heating or cooling systems including fans and air-conditioning.
- © **COVER** any surface in the work area that could become contaminated with fibres, dust and debris with plastic sheeting (200um drop sheets) and secure with duct tape.
- © **BEFORE STARTING WORK** workers need to wear all their PPE gear!
- © **KEEP** asbestos materials wet using a light mist spray.
- O AVOID breaking asbestos materials during work.
- O NOT leave the work area once work has commenced. If workers must leave while work is underway, they must decontaminate themselves according to decontamination procedures and recommence work using NEW PPE.



Asbestos Safety Equipment Checklist for Workers

- ENSURE PPE kit includes ALL items listed here.
- PLASTIC 200um in rolls for covering areas in the work space.
- DUCT TAPE for sealing bags and securely joining pieces of plastic from rolls.
- WET WIPES (preferred) or disposable cloths for decontaminating the area after the job is complete.
- BUCKET for wetting disposable cloths when decontaminating the area.

- WATER SPRAYER (hose or bottle) for wetting down asbestos materials.
- SEALANT (PVA glue) to mix 1 part per 5 parts with water to seal edges.
- NON-ELECTRICAL tools for removal of fixings and materials if required.
- PLASTIC BAGS to contain and seal in asbestos materials. These should be made of 200um (0.2mm) virgin plastic and be labelled/marked as 'ASBESTOS WASTE'. If bags are unavailable, use 200um virgin plastic in rolls and label/mark as 'ASBESTOS WASTE'.



Why is Personal Protective Equipment (PPE) an essential safety measure?

PPE should be worn at all times when working with asbestos materials!

- ◎ If you're not sure if a product contains asbestos, treat it as if it is asbestos and wear PPE.
- ◎ PPE is worn to create a barrier between you and asbestos fibres.
- ◎ There should be no tears or breaks in any PPE products.
- If products (such as coveralls) are damaged or torn, fibres can get in so any damaged or perished PPE must NOT be used and must be disposed of.
- © Suitable PPE is made from materials that protect you and your clothes from fibres including coveralls, gloves, safety footwear, shoe covers, gloves and protective eyewear.
- O Disposable PPE can be ONLY USED ONCE then must be disposed of safely just like any asbestos waste.

IMPORTANT: Workers should always keep a PPE kit on hand as part of their regular tool kit in case they come across asbestos materials on the job.



WEAR all items listed in the PPE Kit whenever working with asbestos.

- ALL items in a disposable PPE Kit must be disposed of as ASBESTOS WASTE after use.
- ◎ Wear the PPE in the following order:
 - 1. Disposable coveralls
 - 2. Footwear
 - 3. Shoe covers
 - 4. Gloves
 - 5. Mask
 - 6. Protective eyewear



IMPORTANT: Wear old clothes under the coveralls. These should be disposed of with the coveralls after use.



DISPOSABLE COVERALLS

- ◎ Should be rated Type 5, Category 3.
- Be labelled for asbestos use.
- Be one size too big to prevent breaking or tearing when worn.
- ◎ Include a hood and elasticised cuffs.
- ◎ Cuffs should be pulled over the edge of gloves.
- If the cuffs of coverall arms are loose, seal them with tape to prevent fibres getting in.
- After the shoe covers are fitted, ensure the coverall legs then go over the top of shoe covers.
- O After the mask and eyewear are fitted, ensure the hood goes over the mask straps and arms of eyewear, and covers all hair.

FOOTWEAR & SHOE COVERS TO BE WORN OVER SHOES

- NEVER wear boots or shoes with laces as they can't be decontaminated.
- GUMBOOTS are the best option as they are easily wiped clean and have no laces. Once cleaned appropriately they can be re-used for non-asbestos work.
- SHOE COVERS are worn OVER shoes and should cover all of the boot/shoe and be secured above the ankle.
- WHEN shoe covers are secured, pull the cuffs of the coverall legs down to cover the top of shoe covers.

GLOVES

- O Use ONLY disposable Latex, Nitrile or neoprene gloves.
- Tuck under the cuffs of coveralls and tape the cuffs if loose.















MASK (RESPIRATORY PROTECTIVE EQUIPMENT)

Your mask should be worn at all times when working with asbestos containing materials.

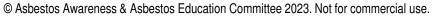
- © Minimum P2 filter, half face disposable particulate respirator.
- O Half face non-disposable particulate respirator with cartridge is preferred but it must be decontaminated after each use.
- Be clean shaven to ensure an adequate seal on your face. If you have a beard, stubble or facial hair you should use a loose fitting, powered air purifying respirator.
- All respirators are different shapes and sizes so it's important that the size is correct to properly fit to the wearer's face.
- Ensure your mask fits perfectly by conducting a respirator fit check. - Close off inlet to filter with hands - Inhale gently - Hold for 10 seconds - Ensue the face piece remains slightly collapsed.

PROTECTIVE EYEWEAR

- ALWAYS wear protective eyewear when working with materials that might produce dust.
- After fitting your mask, fit your eyewear and place the hood over the top of the mask straps and eyewear arms.







Decontamination after working with asbestos

Procedures required to safely double bag and seal asbestos waste and PPE

- ◎ **YOU MUST** continue to wear your PPE throughout this process.
- CAREFULLY place asbestos materials in the 200um plastic bags or wrap using rolls of 200um plastic (drop sheets), seal using duct tape and label 'DANGER ASBESTOS WASTE'.
 - Plastic bags containing asbestos should NOT be more than half full to prevent breaking and must be double bagged.
- ◎ **TIGHTLY TWIST** the bag opening and fold over to form a 'goose neck'.
- © **SECURE** with heavy duty duct tape or similar to seal.
- PLACE each sealed bag inside a second plastic bag labelled 'DANGER ASBESTOS WASTE' and seal as you did the first bag with duct tape. This is called 'double bagging'.
 - If using rolls of 200um plastic, carefully wrap items and seal edges of plastic with duct tape. Repeat the process to double wrap materials.
 - Whether using bags or rolls of 200um plastic, all materials must be double wrapped or double bagged, sealed with duct tape and labelled 'DANGER ASBESTOS WASTE'.

IMPORTANT: All materials must be 'double bagged' using 200um plastic bags or 'double wrapped' using 200um plastic rolls, sealed with duct tape and labelled 'DANGER ASBESTOS WASTE' before being removed from the work area for appropriate disposal. **REMOVE YOUR MASK LAST!**

'Goose-neck

Work area decontamination procedure

- ◎ Carefully wrap plastic drop sheets and double bag or wrap.
- O Use wet wipes or wet disposable cloths to wipe away any dust from surfaces or tools.
- \odot Wet wipes/cloths should be **USED ONCE ONLY**.
- Wet wipes/cloths should be used flat (not wadded).
- $\ensuremath{\mathbb{O}}$ If using cloths, use the bucket of water to wet cloths before use.
- O Never rinse cloths in water and reuse.
- After use, wet wipes or cloths must be double bagged or double wrapped and seal with duct tape.
- Carefully wet wipe surfaces and all hand tools or equipment including the bucket. If tools aren't able to be decontaminated they should be discarded as 'ASBESTOS WASTE' or double bagged for later use but ONLY when wearing PPE.
- Wet wipe the outside of bags before removing bags from the work area.





Personal decontamination procedures

- Remove any visible asbestos dust from protective clothing by wet wiping with clean, wet wipes/cloths and place a 200 um plastic bag.
- ◎ Carefully remove shoe covers, gloves and coveralls and place in a 200um plastic bag.
- ◎ Use wet wipes/cloths to wipe down footwear then place cloths in a plastic bag.
- ◎ Wipe down the outside of all bags with wet wipes/cloths and place in a plastic bag.
- Remove mask last and place in a 200 m plastic bag and seal using the goose-necked and double bag method.
- © Remove old clothing and double bag as you did the other disposable items.
- ◎ Seal all plastic bags using duct tape and the double bag method.
- ◎ Wash hands, nails, face and head thoroughly with soapy water.
- ◎ Shower and wash hair to complete personal decontamination.



IMPORTANT: When decontaminating yourself, all items must be double bagged, sealed with duct tape using the goose-neck method and disposed of as asbestos waste.

Disposing of asbestos waste

- © Safely dispose of asbestos waste Whatever you do, DON'T dump it!
- It is IMPORTANT that ALL PPE and materials used when removing or repairing asbestos are disposed of as ASBESTOS WASTE.
- Not all waste centres accept asbestos waste. Check with Council for your nearest authorised asbestos waste disposal centre.
- Sor more information on illegal dumping contact the regulator in your state or territory <u>https://asbestosawareness.com.au/useful-links/</u>

IMPORTANT: There are severe penalties in Australia for illegally dumping asbestos waste!



SECTION 10. Additional Asbestos Information

10 Asbestos Rules for Homeowners

- 1. Don't put your health or the health of others at risk! Respect asbestos for the hazard it is!
- 2. You can't tell if a material contains asbestos just by looking at it. Only testing of a sample by a NATA accredited laboratory can confirm if asbestos is present.
- 3. If you think a material may contain asbestos, treat it as if it is asbestos and take all the required safety precautions.
- 4. If sealed (painted) and undisturbed, asbestos is not considered dangerous.
- 5. If disturbed during renovations or maintenance, microscopic fibres can become airborne and may cause asbestos related diseases.
- 6. If a home was built before 1990, before commencing renovations or demolition, it should be inspected by an occupational hygienist, a licenced asbestos assessor or a licenced asbestos removalist. You should ask to see their licence.
- 7. When removing asbestos from your home, only use licenced asbestos removalists. You should ask to see their licence.
- 8. It is an offence to dump asbestos. Contact your local council or state or territory regulator for advice on asbestos disposal.
- 9. Visit asbestosawareness.com.au to learn where asbestos might be lurking and how to manage it safely!
- 10. If you suspect a product may contain asbestos, Don't cut it! Don't drill it! Don't drop it! Don't sand it! Don't saw it! Don't scrape it! Don't scrub it! Don't dismantle it! Don't tip it! Don't waterblast it! Don't demolish it! And whatever you do... Don't dump it!



Other asbestos risks in Australia

Asbestos in the natural environment

- Naturally Occurring Asbestos (NOA) occurs in some rocks, sediments and soils and is not easily identified.
- In its natural state, asbestos presents the same health risks as asbestos contained in building products and other asbestos-containing materials so it must be managed safely and in accordance with regulations!
- While not all states and territories have developed specific NOA guidelines and controls for property owners and managers where NOA has been identified, the resources commissioned by the NSW Government may be useful in managing NOA in all parts of Australia. For a suite of free resources to help manage NOA safely in line with regulations visit <u>https://asbestosawareness.com.au/noa/</u>

Asbestos in commercial and non-residential properties

- O Although banned in the 1980s for use in commercial and non-residential properties, asbestos continued to be used in multiple locations throughout many of these properties prior to 31 December 2003.
- There are a range of legal obligations to ensure asbestos in these properties is managed safely. For comprehensive information and a suite of free resources to help manage asbestos in commercial and non-residential properties safely in line with regulations visit https://asbestosawareness.com.au/commercial-properties/



Asbestos Awareness Information & Resources

Visit asbestosawareness.com.au for information and useful, O Asbestos Awareness Residential Property Checklist – A Homeowner's Guide to Identifying Asbestos-Containing practical resources

- O Asbestos Awareness 20 Point Safety Check
- O Residential Checklist for Tradies A Tradespersons Guide to Asbestos
- ◎ Trade Specific Checklist for Tradies A Tradespersons Guide to Asbestos
- **©** Fact Sheets for Tradies
- Asbestos Product Database
- Asbestos Management for Commercial and Non-**Residential Properties**
- Naturally Occurring Asbestos
- **Asbestos in Your Home** The Ultimate Renovators Guide

Materials

Fact Sheets for Homeowners

For information relating to requirements for asbestos management in your state or territory, visit asbestosawareness.com.au

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