




Safety information for the removal of less than 10m² of non-friable asbestos

 @AsbestosSafety

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Before you begin

When removing asbestos, the risk of exposure to fibres must be minimised at all times to ensure you comply with legislation and protect your health and the health of others. Exposure to asbestos fibres can cause a number of respiratory diseases including asbestosis, mesothelioma, and pleural and lung cancers.

There are legal and safety requirements for the management and removal of asbestos under the model *Work Health and Safety Regulations 2011* or similar regulations operating in each state and territory that apply if you are a person conducting a business or undertaking, a person who manages or controls a workplace, or a person carrying out demolition or refurbishment work.

The fact that a non-licensed person is permitted to remove 10m² or less of non-friable asbestos-containing material does NOT mean removal at this scale poses no risks to human health.

NOTE: In the Australian Capital Territory ALL asbestos material must be removed by a licensed asbestos removalist.

If you are a worker, you must only carry out non-licensed asbestos removal work if you are deemed to be a competent person. This means you have completed training, have industry experience and the right equipment for the task.

Do-it-yourself work

If you are a do-it-yourself home renovator considering undertaking minor asbestos removal tasks, you should first determine whether you have the relevant skills, experience and equipment to ensure the risk of asbestos exposure remains as low as possible.



Safety information

This safety information has been developed in response to questions raised by employers, self-employed people and do-it-yourself (DIY) home renovators when undertaking minor renovations and removal tasks in residential properties which may contain asbestos.

This guide contains important steps you should follow to reduce the risk of exposing yourself and others to asbestos fibres when undertaking removal of less than 10m² of non-friable asbestos. If you intend to remove non-friable asbestos yourself, it is highly recommended you also read and follow the instructions contained in the

Code of Practice: How to Safely Remove Asbestos, published by Safe Work Australia. If you are a worker or duty holder under the *Work Health and Safety Regulations 2011* and the regulations in each state and territory, the use of the term *must* in this guide means adherence to these procedures is a compulsory regulatory requirement.

Where am I likely to find asbestos?

Building products made from asbestos were considered very versatile and were easily moulded, shaped, cut, drilled and painted. This made them a popular choice and their use was widespread, including in many homes and workplaces. Australia was one of the highest users per capita in the world up until the mid-1980s. Approximately one third of all homes built in Australia contain asbestos products.

Outside the house

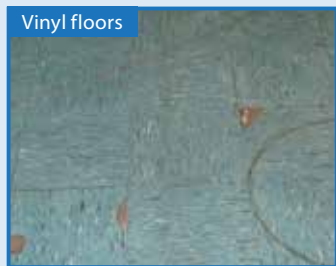
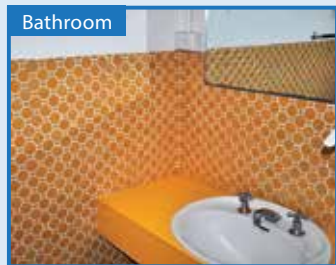
Externally, asbestos products were commonly used for roof sheeting and capping, guttering, gables, eaves/soffits, water pipes and flues, wall sheeting, flexible building boards and imitation (false) brick cladding. They were also used in fencing material and in the construction of carports, garages, bungalows, outhouses, garden surrounds and sheds.

Inside the house

Asbestos products were often used inside houses as wall sheeting, particularly in wet areas such as the kitchen, bathroom, toilet and laundry, and were also commonly used as ceiling sheeting. Asbestos was also used in plaster patching compounds, textured paint, switchboards and vinyl floor tiles and sheeting.

Asbestos can be found in some older forms of insulation used in domestic heaters and stoves. Asbestos felt was used as a backing for many vinyl and linoleum sheet floorings and can easily become loose when the floor covering is damaged or removed.

Examples



What is the difference between non-friable and friable asbestos?

Non-friable asbestos

Non-friable asbestos (also known as bonded asbestos) means that the asbestos fibres in the product are held within a solid matrix (e.g. cement in asbestos cement sheeting) and are less likely to become airborne, unless the product is damaged or has deteriorated. Asbestos fences, roofs, vinyl floor tiles and asbestos cement sheeting are examples of non-friable asbestos products.

Friable asbestos

Friable asbestos products contain loosely packed asbestos fibres and can be crushed easily in the hand. Examples of friable asbestos products include asbestos rope, insulation, pipe lagging and fire blankets.

It is important to remember that over time, non-friable materials may become friable as the bonding agents holding asbestos fibres in place deteriorate.

How can I tell if it is asbestos?

Confirming that materials contain asbestos may require talking to or hiring a professional. There is no conclusive on-site test for the presence of asbestos. Asbestos content can only be determined through laboratory testing following sampling. However, the age of the building or refurbishment may be used as an indication. If the property was constructed before 1990 it is likely it will contain some form of asbestos.

If you are unsure whether the materials you are planning to remove contain asbestos, it is

best to assume asbestos is present until it can be confirmed or ruled out.

Professionals who can assist with identifying asbestos around the home include:

- occupational hygienists who have experience with asbestos
- licensed asbestos removalists and assessors
- individuals who have undertaken a recognised training course in asbestos identification.

Who is most likely to disturb asbestos?

Anyone whose work involves contact with the surfaces or structure of a building may be at risk of disturbing asbestos. This includes:

- Electricians, Joiners, Plumbers, Gas Fitters, Shop Fitters, Heating and Ventilation Engineers
- Labourers, Roofers, Plasterers, Demolition Workers and other Construction Workers
- Phone and Data Engineers, and Alarm Installers
- Surveyors, General Maintenance Engineers, Painters and Decorators
- DIY home renovators

Asbestos-containing materials (ACMs) may be left in place provided they are in good condition and do not put anyone at risk of exposure to asbestos fibres. You must continue to monitor the condition of ACMs over time to ensure they remain safe. Asbestos fibres are more likely to be released if the following happens:

- ACMs are not identified before work starts
- work is poorly planned or carelessly carried out
- work involves perforating dry ACMs (e.g. cutting, drilling or sanding)
- power tools or saws are used
- asbestos-containing debris or dust is swept from surfaces.

Who can remove asbestos? Do I need to use someone with a licence?

Most work with asbestos needs to be carried out by a licensed removalist. This includes all work involving friable asbestos material, or if the area of the material being removed exceeds 10m². As a guide, it is equivalent to about four sheets of asbestos cement wall sheeting or one wall of an average sized bathroom. Asbestos removal tasks typically involve larger quantities so in most cases a licensed asbestos removalist will be required.

A non-licensed removalist can be used to remove less than 10m² of non-friable asbestos material. Non-licensed removalists still have duties relating to the removal of asbestos under work health and

safety laws and need to follow safety precautions to minimize the release of asbestos fibres. Details of these duties can be found in the *Code of Practice: How to Safely Remove Asbestos*.

Licensed removalists will usually have a specific insurance policy in place to cover them in the event that something goes wrong. Most common insurance policies will exclude liability for any work relating to asbestos. It is important to be aware of this and note that as a DIY renovator or non-licensed removalist, you could be liable to pay very expensive clean-up costs.

How do I find a licensed professional?

Asbestos removalists are licensed in each state and territory through the work health and safety regulator.

It is recommended you visit the relevant regulator's website or contact them for a list

of qualified removalists. Always check that the individual you are planning to engage has the appropriate licence and qualifications.



Doing it yourself

If you are planning to remove less than 10m² of non-friable asbestos material yourself, you should read the below information together with the *Code of Practice: How to Safely Remove Asbestos*. The code of practice provides

clear information about how to remove asbestos safely. Risks associated with this kind of asbestos-related work are minimised by applying the same precautions as a licensed removalist.

How should I prepare before commencing removal?

Training

It is recommended that home owners complete an asbestos awareness course or the non-friable removal unit of competency (CPCDCDE3014A - Remove non-friable asbestos) before attempting to remove less than 10m² of non-friable ACM. These courses provide basic information on identifying and working safely with asbestos, how to prepare, contain and remove asbestos, and decontamination procedures.

For more information on the unit of competency or to find a training provider, visit www.training.gov.au

Preparing the work area

- Isolate the area and limit access by erecting signs and barriers and tell others to avoid the area
- Cover all vents and turn off air-conditioning and fans
- Avoid working outside on windy days
- Clear the area of personal belongings, loose items, soft furnishing and anything that may become contaminated
- Cover the floor or ground area with new, heavy-duty 200 µm (minimum) polythene plastic sheeting
- Ensure you have all necessary personal protective equipment and bags and/or plastic sheeting for wrapping ACMs prior to disposal, ready on site before commencing any work
- Check with your local council what the requirements are relating to notice of works
- Make arrangements for the storage and disposal of asbestos waste before you begin work.



Equipment

- Plastic sheeting (new, minimum 200 micrometres (µm) thick polythene) and duct tape
- Warning notices and barricades
- Bolt cutters (for sheets bolted in place)
- Access to a garden hose with a fine spray nozzle or a spray bottle containing a wetting agent (water, or water with detergent)
- Bucket of water and disposable rags



- Solid asbestos-waste container, labelled appropriately
- Asbestos waste bags (new, labelled, 200 µm thick polythene plastic).

Personal protective equipment

All personal protective equipment (PPE) required for the removal of asbestos should be available from your local hardware store.

Coveralls

Disposable coveralls should be used to prevent the contamination of clothing and footwear. Read the product description to ensure you select coveralls suited to asbestos work. Disposable coveralls need to be of a suitable standard to prevent penetration of asbestos fibres, so far as is practicable. Disposable coveralls rated Type 5, Category 3 (prEN ISO 13982-1), or the equivalent, would meet this standard.

The coveralls should have no external pockets or velcro fastenings. It is recommended they are bought one size too big for the wearer, to prevent ripping of seams during removal work. The cuffs

of the overalls should be sealed with tape, and the legs should be worn over footwear to prevent dust falling into the wearer's shoes. An attached fitted hood (worn over respirator straps) and disposable gloves should also be worn.

Disposable coveralls should never be taken home for washing, should never be re-used, and should be disposed of as asbestos-contaminated waste after a single use.



Footwear

Safety footwear (for example, steel-capped work boots or gumboots) should be worn. Footwear with laces should be avoided because laces are easily contaminated and difficult to clean. Footwear may remain inside the asbestos removal area for the duration of removal, but should be stored upside down and should not be shared. At the end of the removal

work, safety footwear must be:

- decontaminated
- double bagged (if being used at another site), or
- disposed as asbestos waste.



Gloves

It is recommended that single-use gloves are worn. Gloves should be disposed of as asbestos waste, and hands and fingernails should be cleaned thoroughly whenever leaving an asbestos area.

Respiratory protection

Ordinary dust masks are not effective in preventing the inhalation of asbestos fibres and dust. You should wear a half-face filter respirator fitted with a Class P1 or P2 filter cartridge, or a Class P1 or P2 disposable respirator. Respiratory protection devices should comply with *Australian/New Zealand Standard 1716:2012*

Respiratory Protective Devices, or its equivalent. This P1 or P2 number will always be displayed on suitable respirators. To ensure the respirator is effective, users must be clean shaven, and the respirator should fit closely and be held securely in position by a head strap. Respirators must be maintained appropriately.

For best protection against the inhalation of fibres use a P2 Respirator



P1 Respirator

- Intended for use against mechanically generated particulates of sizes most commonly encountered in industry
- Particles shall not show penetration in excess of 20%



P2 Respirator

- Intended for use against both mechanically and thermally generated particulates
- Particles shall not show penetration in excess of 6%



P3 Respirator

- Intended for use against all particulates including highly toxic materials
- Particles shall not show penetration in excess of 0.05%

Tools

Tools and equipment that generate dust must not be used on asbestos materials. Examples of these include brooms and brushes, high-pressure water sprays and compressed air sprayers, and high-speed power tools such as angle grinders, sanders, saws and high speed drills.

Only manually operated hand tools should be used on materials suspected of containing asbestos.

When asbestos removal work is complete, tools should be decontaminated by dismantling them (where appropriate) and either wiping them down with a damp cloth to remove all visible asbestos dust or residue, or cleaning them with an asbestos vacuum. Used cloths are disposed of as asbestos waste. Sometimes it may be easier to completely dispose of tools as asbestos waste than to decontaminate them. If you need to remove tools from the asbestos area for decontamination or move them to another asbestos area, ensure they are double-bagged and labelled appropriately.

Do not use a household vacuum cleaner when working with asbestos. Only specialised asbestos vacuum cleaners complying with the Class H requirements of the *Australian Standard AS/NZS 60335.2.69 Industrial Vacuum Cleaners* and fitted with HEPA filters should be used, and must be decontaminated after use.



Asbestos removal control plan

An asbestos removal control plan identifies the specific control measures that will be used during asbestos removal works. A plan must be prepared for all licensed asbestos removal works and is recommended for non-licensed asbestos removal works.

An asbestos removal control plan includes details of:

- how removal will be carried out, including methods, tools, equipment and PPE

- details of the asbestos being removed, including location, type and condition.

Plans and drawings can be attached to the removal control plan to provide additional information.

For more information on asbestos removal control plans, see Appendix A of the *Code of Practice: How to Safely Remove Asbestos*.

Removing asbestos material safely

For further instructions on how to remove asbestos: refer to the *Code of Practice: How to Safely Remove Asbestos*.

- Thoroughly wet down the material before you start and at regular intervals during the removal process by lightly spraying surfaces with water, or with water mixed with detergent, or with a polyvinyl acetate (PVA) solution comprising one part PVA to ten parts water
- If the work area is outdoors, use water from a low-pressure garden hose, ensuring all electrical hazards have been removed from the area first
- If sheets are bolted in place, dampen and cut the bolts while avoiding contact with the asbestos material. Remove the bolts or fixings carefully and place them in the asbestos-waste container
- Unbolt or use bolt cutters to release gutters, drain pipes, ridge caps etc. Avoid contact with the asbestos-contaminated material
- Carefully lower large pieces of ACM to the ground—do not drop them or put them in rubble chutes
- Stack fibro asbestos-cement sheets carefully
- Avoid or minimise breaking asbestos-cement products
- Avoid crushing ACM debris on the ground
- Place small pieces of asbestos debris in an asbestos-waste container
- Double-wrap large pieces of ACM in plastic sheeting (minimum 200 µm thick) and seal all openings securely with duct tape
- Ensure all wrapped or bagged asbestos-waste is appropriately labelled.



How do I safely prepare asbestos for disposal?

All hazardous or special waste needs to be disposed of safely. This includes:

- asbestos
- materials containing asbestos
- anything contaminated with asbestos, unless fully decontaminated.

You must:

- keep the asbestos material wet until it is packaged (wrapped and sealed, or bagged)

- carefully package the material (including any offcuts or contaminated materials) in two layers of 200 µm plastic sheeting, or use asbestos waste bags. Completely seal the packages with adhesive tape
- affix asbestos warning stickers, or clearly label the packages ASBESTOS WASTE using a permanent marker pen
- store packaged asbestos waste in a solid, secure and clearly labelled waste bin or skip until removed.

Decontamination

Whenever a person or equipment leaves an asbestos area or when asbestos removal works are finished, decontamination procedures must be undertaken. This involves the set-up of specific dirty and clean areas to ensure asbestos fibres, dust and residues are not transported outside of the asbestos area.

Decontamination can be done two ways:

- wet decontamination (or 'wet wiping') uses disposable rags to wipe contaminated surfaces. If using a bucket of water, rags must not be re-wetted in the bucket or the water will be considered contaminated and therefore becomes asbestos waste. All rags are disposed of as asbestos-contaminated waste
- dry decontamination involves rolling/folding up and sealing contaminated sheeting, or using an asbestos grade vacuum cleaner. This method should only be used if the wet method poses a risk due to electricity or slipping.

Tools that are used in an asbestos area must be disposed of as asbestos-contaminated waste, or they must be decontaminated before being double-bagged and labelled for transport to another asbestos area.

Personal decontamination involves vacuuming and wiping clothing, removal of contaminated clothing, showering, and maintaining a 'clean' changing area.

The areas required for personal decontamination include:

- a dirty decontamination area (closest to the asbestos removal area) for vacuuming and wiping of contaminated surfaces and clothing, storage of contaminated footwear, disposal of PPE into labelled bags, and a showering area
- a clean decontamination area for storage of clean respiratory protective equipment
- a clean changing area to put on clean clothes.

It is important that decontamination areas are physically separated to ensure cross-contamination is minimised.

It is also important that airflow through these areas always moves towards the asbestos removal area and that all contaminated water is collected and disposed of as asbestos waste. You need to be very careful when moving labelled, sealed bags of contaminated clothing and wipes from the dirty area through any clean areas.

Steps to follow for decontamination

1

Keep your respirator and PPE on until all work has been completed and you have finished cleaning the area.

2

Before any PPE or footwear is removed, it should be thoroughly vacuumed with an asbestos vacuum cleaner. Safety footwear should also be wet wiped, and the wipes disposed of as asbestos waste.

3

PPE and footwear should not be removed until all visible asbestos dust or residue is removed. PPE should be removed carefully and disposed of appropriately with other asbestos waste.

4

Before removing a respirator, the worker must wash, carefully paying particular attention to the hands, fingernails and head. Remove the respirator last and proceed with careful washing of the face.

How do I safely dispose of asbestos?

Securely transport and dispose of asbestos waste packages at a designated asbestos-waste disposal facility. Visit www.asbestossafety.gov.au/search-disposal-facilities to find your nearest licensed facility.

Requirements for the transport of asbestos-waste vary between states and territories. You should contact the Environmental Protection Agency in your state or territory for more information on requirements.

When the asbestos removal works have been completed, a final clearance inspection of the site

should be undertaken to ensure it has been cleaned properly and there is no visible sign of asbestos dust or residues. Areas that should be inspected include:

- the removal work area
- the area(s) surrounding the removal work area
- the route from the removal work area to the asbestos-waste storage area, bin or skip
- areas where there is any remaining asbestos material, to ensure it remains intact.

Appendix A – legal requirements

Legal requirements relating to asbestos removal stipulate that:

- you *must* identify all hazards associated with the removal work - this may include hazards associated with the removal activity
- you *must* use signs and barricades to indicate the area where the removal work will be conducted - this includes placing warning signs at each entry and exit point to inform people of asbestos removal work, and effectively positioning barricades large enough to reflect the level of the asbestos risk
- you *must* use techniques that eliminate or minimise the release of asbestos fibres, such as the wet spray method (Refer to Chapter 4 of the Code of Practice – How to Safely Remove Asbestos)
- you *must* use appropriate tools for the job and decontaminate all tools you have used after removal work is complete - these may include asbestos grade vacuum cleaners complying with the Class H requirements of the *Australian Standard AS/NZS 60335.2.69 Industrial Vacuum Cleaners* and fitted with HEPA filters, manually operated hand tools and special equipment designed to capture or suppress respirable dust and fibres
- you *must not* use power tools that generate dust, such as high-speed abrasive or pneumatic tools, brooms or brushes, high pressure water sprayers or compressed air (See the Code of Practice: How to Safely Remove Asbestos for more information)
- you *must not* water blast asbestos cement sheeting
- you *must* wear appropriate personal protective equipment (PPE), including (but not limited to) coveralls, gloves, footwear and respiratory protective equipment
- you *must* provide appropriate decontamination areas ('clean' and 'dirty' areas) for workers, PPE and tools
- you *must not* dispose of asbestos waste in domestic garbage bins - asbestos contaminated waste *must* be disposed of in new, heavy-duty 200 µm polythene bags no larger than 1200 mm long and 900 mm wide and should only be half filled; these bags and any polythene sheeting used should be stored in a solid, secure and appropriately labelled waste drum, bin or skip for disposal
- you *must not* dump, re-use or recycle asbestos products
- all asbestos *must* be legally disposed of at a lawful landfill site (not every landfill site is authorised to accept asbestos)— you *must not* bury asbestos on your own property
- *only* a Class A licensed removalist can remove friable asbestos
- *only* a licensed asbestos removalist can remove non-friable asbestos when the quantity is greater than 10m² (except in the ACT where a licensed removalist is required for all quantities of removal of non-friable asbestos)
- all licensed removalists must be able to produce a copy of their licence on request –you should ask to see a removalist's asbestos removal licence to ensure it is valid and current before hiring them.

Where can I find more information?

- Your local council
- Safework Australia *Code of Practice - How to Safely Remove Asbestos*
- Safework Australia *Code of Practice – How to Manage and Control Asbestos in the Workplace*
- The work health and safety regulator in your state or territory
- The Environment Protection Authority in your state or territory

Images of PPE supplied by Allens Industrial Products

Some other images courtesy of www.asbestosawareness.com.au

