



Asbestos awareness for fire protection trades

This guide provides information about where you might find asbestos, the laws that relate to asbestos management and removal and how to protect yourself and others from exposure to harmful asbestos fibres.





IST

INSTRUCTIONS

Don't risk your health

Anyone working in the fire protection industry is likely to come into contact with asbestos at some stage, for example when undertaking fire safety inspections in commercial buildings or when installing smoke detectors in suburban homes.



Asbestos was used in over 3,000 common products before being phased out by 1990 and banned in 2003. It is still present in millions of homes and public and commercial buildings.

Products containing asbestos are still manufactured overseas, and despite bans and border controls these products sometimes enter Australia illegally.

Asbestos causes cancer

Inhaling asbestos fibres is associated with fatal diseases including asbestosis, lung cancer and mesothelioma. All these asbestos-related diseases contribute to approximately 4000 deaths in Australia each year.



You don't need a lot of exposure to asbestos fibres to develop a fatal disease later in life.

The people at greatest risk of exposure are those that undertake repairs, maintenance, renovations and other work on older buildings and infrastructure which contain asbestos materials. This includes those installing, removing and maintaining fire protection equipment.

Asbestos
awareness

When is asbestos harmful?



Asbestos can be found in a **friable** or **non-friable** form.



FRIABLE: flaky, powdery, can be broken up easily with your fingers; or due to a work process, the asbestos material becomes such that it may be crumbled or reduced to powder by hand pressure. Can be found in loose-fill insulation, sprayed asbestos millboard, asbestos rope or loose packing. It is extremely hazardous because the fine asbestos fibres can be easily released into the air and inhaled.



NON-FRIABLE: bonded as part of another compound, often cement or glue. Can be found as part of fibro sheets and asbestos based resin board. It can be hazardous when disturbed, damaged or deteriorating as asbestos fibres can be released.

If in any doubt about the type or condition of the asbestos material, you should treat it as friable.

Where can you find asbestos?

Workplaces where the presence of asbestos is likely must keep an asbestos register which will tell you where it is and what condition it is in.

Asbestos is present in many locations



**Residential
homes and
apartments**



**Commercial
and Public
Buildings**



Infrastructure



**Environment –
asbestos waste
in soil**

**Buildings constructed or renovated before
1990 are likely to contain some asbestos**

Renovations carried out after 1990 may have covered up asbestos material rather than removing it, so it is important to know where it might be.

How can I tell if something is asbestos?

You cannot tell if a building material contains asbestos by simply looking at it.

The only way to be sure is to **have a sample tested** by a NATA (National Association of Testing Authorities) accredited laboratory. At present, there is no conclusive on-site test for the presence of asbestos. If the building is a workplace (commercial and public buildings) the person with management or control of the workplace must keep an **asbestos register** that tells you where it is and what condition it is in.

Before starting work in a home, you should ask the owner if they know of any asbestos in the property. Although a home can also be a workplace, homeowners are not required to keep an asbestos register. Remember that many householders will not be aware that their home may contain asbestos.

Asbestos professionals who can assist with identifying asbestos include:

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

Always check if asbestos is present before you begin work:

- > ask to see the **asbestos register**
- > if there is no register ask an **asbestos professional** for advice and have a sample tested, or
- > **if you cannot confirm whether the material contains asbestos, assume that it is asbestos and take the necessary precautions.**

Common asbestos products to be aware of:

Fire rating and acoustic sound deadening materials

Multi storey buildings and structural beams were often sprayed with asbestos or asbestos-containing vermiculite as fire-rating material or as an acoustic sound deadening material. Sprayed asbestos is very hazardous, releasing airborne asbestos fibres unless a sealant or coating has been applied.

Fire doors

Fire doors were commonly manufactured with asbestos. These doors consist of an outer wooden frame which was covered with sheets of asbestos cement and a central core made of either asbestos or compressed asbestos material. They are commonly found in areas leading into stairwells and other fire escape routes of a building, and are often also found between 'sections' of a building. Fire doors can often be identified by their heavy weight.



Firewalls

Asbestos firewalls are usually located above dividing walls in ceiling or roof spaces to minimise the spread of fire. They were also used around ignition sources including electrical switch or incinerator rooms.

Firewalls are uncommon in standalone domestic houses but can be found in unit or apartment blocks. They can also sometimes be found between duplex pairs and in the roof spaces of town houses or semi-detached homes.

Firewalls were often disturbed by running cables through them and therefore may be in poor condition.

Fire limiting measures

Asbestos containing products such as asbestos rope, bagged asbestos, vermiculite, loose packed asbestos and asbestos sealant were commonly used in multi storey buildings to slow the spread of fire and smoke.

They were used:

- to fill in voids between floors and in the service areas of buildings where cables, pipes and ducting move from floor to floor
- around service or core areas, including lift or fire escape shafts and around the top of concrete or brick walls.

Ceilings and electrical boxes

Asbestos cement and asbestos low density board ceilings are common in older houses and residential properties.

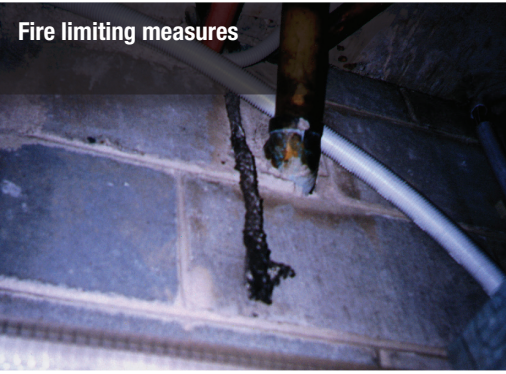
A number of asbestos-containing components can be found in main electrical meter boards and fuse boxes, including asbestos based resin boards (generally black in colour) with brand names such as Ausbestos or Zalamite stamped on them. Insulating asbestos panels of asbestos cement sheeting, insulation board, millboard or potentially a combination of these, can be found behind these boards.

Older electrical cabinet or boxes may contain asbestos-containing debris inside them due to disturbances caused by previous installation work. This can be in the form of asbestos resin board dust, asbestos millboard debris, asbestos cement or asbestos insulation board debris.

Also, look out for...

- **Running pipes and cables**, the installation of pipe work or connection cabling can result in fire protection workers being exposed to asbestos.
- **Sprinkler pumps and motors** can also contain asbestos components such as clutch lining, gaskets and seals.
- **Asbestos-cement debris** is often found in roof cavities due to previous work and damage to asbestos-containing sheeting and materials.

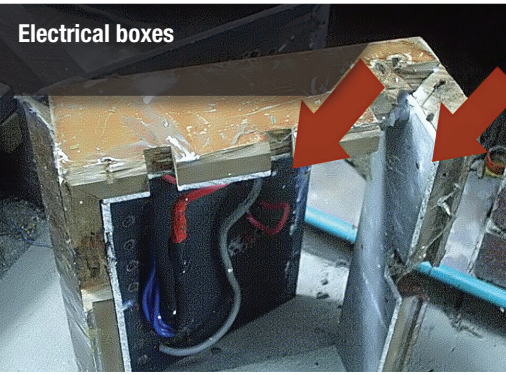
Fire limiting measures



Firewall



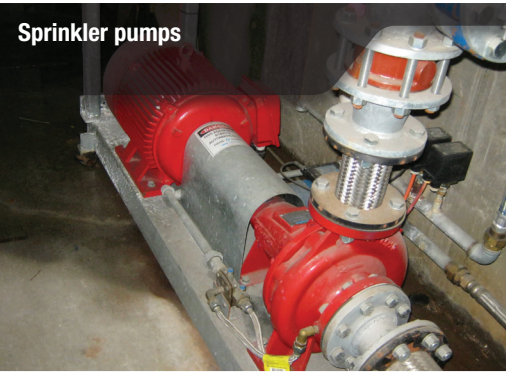
Electrical boxes



Running pipes and cables



Sprinkler pumps



Asbestos-cement debris



Fire doors



Asbestos insulating board ceiling and fire breaks



What do the laws require?

There are strict rules under **Australian work health and safety (WHS) laws** to ensure the safe management, control and removal of asbestos in the workplace. This includes residential premises that become a 'workplace' when a contractor is working there.

- Business owners and employers must **provide a safe working environment and training for workers** who may come into contact with asbestos.
- Business owners and employers must **ensure other people are not exposed** to asbestos fibres so far as is reasonably practicable.
- Workers must take **reasonable care for their own health and safety** and not adversely affect the health and safety of other persons.

Fire protection workers carrying out work involving asbestos materials – including cutting a hole into an asbestos cement sheet to install a smoke detector – must, by law:

- be trained in asbestos identification, safe handling and control measures
- use equipment designed to capture or suppress airborne asbestos
- follow safe removal, decontamination and disposal methods.

If asbestos needs to be removed...

If asbestos is likely to be disturbed as part of demolition or refurbishment, then it must be safely removed before the work starts.

In most circumstances, WHS laws require asbestos to be removed from workplaces by a **licensed asbestos removalist**.

There are two classes of licensed asbestos removalist:

- Class A: authorised to remove all types of asbestos
- Class B: authorised to remove only non-friable asbestos materials.

No more than 10m² of non-friable asbestos can be removed by a business or organisation without a license, except in the Australian Capital Territory (ACT) where any amount of asbestos material must be removed by a licensed asbestos removalist. All tradespersons working in the ACT are required to complete training in *10852NAT - Course in Working Safely with Asbestos Containing Materials*.

In Victoria the removal of less than 10m² of non-friable asbestos can only be done without a license where the total time of all asbestos removal work carried out in any period of 7 days is less than 1 hour. This does not mean that removing up to 10m² of non-friable asbestos is safe, just that it is legally allowed if all precautions are taken.

WHS laws also require a **Safe Work Method Statement (SWMS)** to be completed for construction work that disturbs or is likely to disturb asbestos, because this is considered high-risk construction work.



You must comply with all the requirements of the work health and safety laws and environment protection laws in your state or territory. These laws can vary, so it is important that you check requirements in your jurisdiction.

Regulators in each state and territory publish codes of practice and other types of guidance to help you comply.



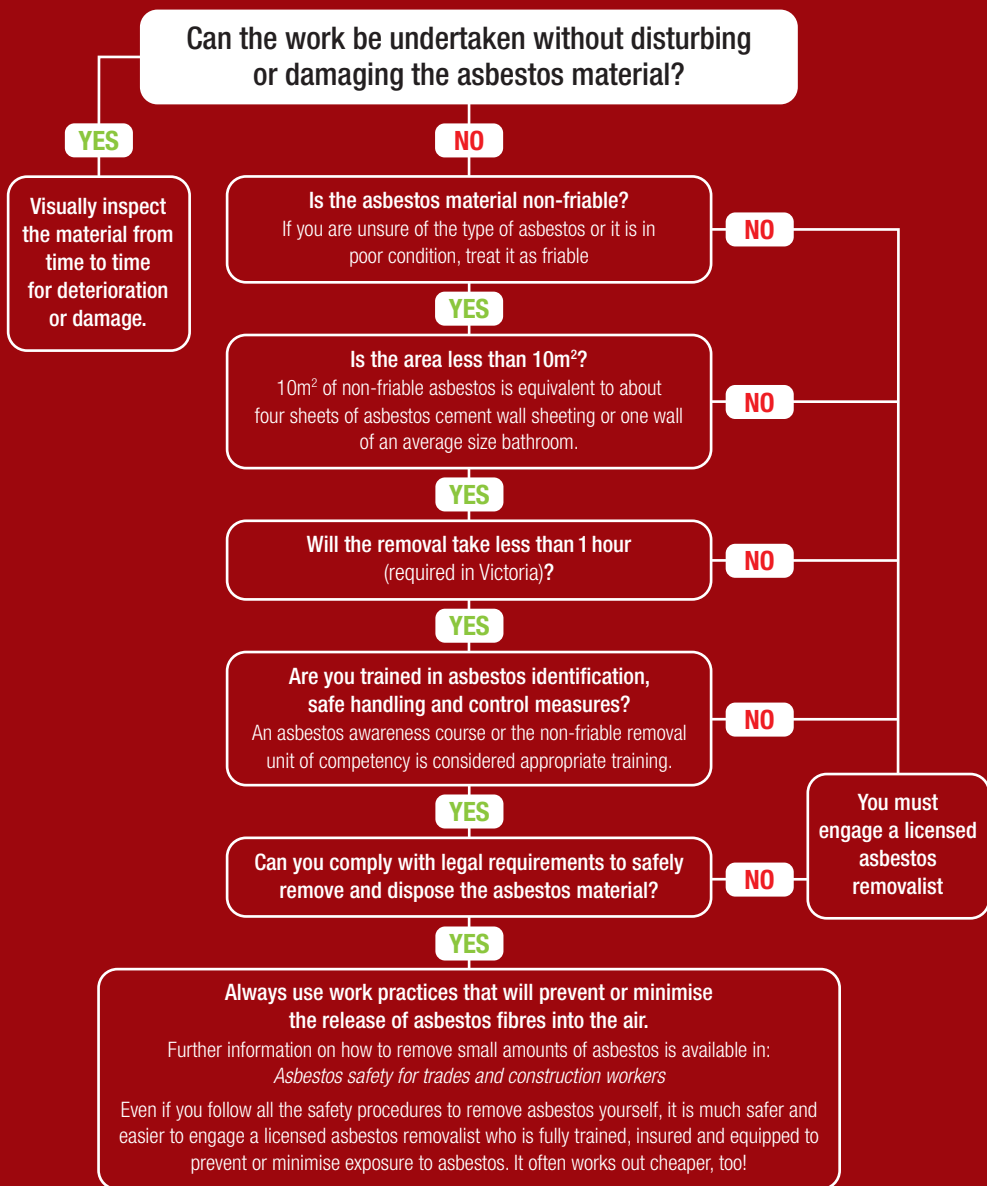
If you are not trained in the safe handling of asbestos – don't touch it!

You also may not be protected by your insurance if something goes wrong because most regular insurance policies exclude asbestos liabilities.

Things to consider before starting a job

Not sure whether a material contains asbestos?

- ask to see the asbestos register
- ask an asbestos professional for advice and have a sample tested
- assume the material contains asbestos and take the necessary precautions.



Safety Tips

- ✓ Always consider using a licensed asbestos removalist if asbestos needs to be removed first
- ✓ Ensure a Safe Work Method Statement is generated and followed for the work
- ✓ Wear the right personal protective equipment (PPE) and ensure it is fitted correctly
- ✓ Thoroughly wet down the asbestos material and keep it wet during your work to minimise dust – first check that all electrical equipment is de-energised
- ✓ Do not use brooms or brushes to dry-sweep asbestos containing dust
- ✓ Do not use high-speed power tools to cut, grind, sand or drill asbestos materials
- ✓ Do not use high pressure water or compressed air to clean asbestos materials
- ✓ Do not walk on asbestos-cement roofs as they are often brittle and may break
- ✓ Do not leave asbestos materials where they may be broken or crushed
- ✓ Wrap asbestos waste (including any offcuts or contaminated items) in two layers of 200 µm plastic sheeting or double-bag in asbestos waste bags
- ✓ Ensure the packaged asbestos waste is transported securely and disposed at a designated asbestos-waste disposal facility as soon as possible after removal.

Keep some important equipment in your work vehicle like a cartridge half face mask (P2), disposable overalls, disposable gloves and other equipment like a water spray bottle, 200 micron thick plastic bags and duct tape.



**www.
asbestosafety
.gov.au**



Further information:

State and Territory work health and safety regulators have a range of resources on asbestos:

- NSW – www.safework.nsw.gov.au
- QLD – www.worksafe.qld.gov.au
- VIC – www.worksafe.vic.gov.au
- TAS – www.worksafe.tas.gov.au
- SA – www.safework.sa.gov.au
- NT – www.worksafe.nt.gov.au
- WA – www.commerce.wa.gov.au/worksafe
- ACT – www.worksafe.act.gov.au
- Cwth – www.comcare.gov.au

