



Australian Government

Asbestos Safety and Eradication Agency

Asbestos awareness for electricians

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.





Don't risk your health

Anyone working in electrical trades is likely to come into contact with asbestos at some stage.



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 is known to cause 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.

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 and pipe lagging. It is extremely hazardous because the fine asbestos fibres can be easily released into the air and inhaled.



NON-FRIABLE: bonded securely as part of another compound, often cement. Can be found as part of cement pipes or fibro sheets. 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?

Asbestos is present in many locations



Residential



**Commercial
and Public
Buildings**



Infrastructure



**Environment –
asbestos waste
in soil**

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

Whether working at a construction site, a power station, telecommunications pit, apartment block or a suburban home, you are likely to come across asbestos and your work could put you at risk of being exposed to harmful fibres.

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.**



Household electrical boxes and boards

Electrical meters, fuse boxes and boards can contain asbestos including:

- Asbestos based resin mounting boards, generally black in colour with brand names such as “Ausbestos” or “Zelemite” stamped on them (figure 1). Behind these boards can be insulating asbestos side, back and top panels of asbestos cement sheet, asbestos insulation board, asbestos millboard or even a combination of them.
- Asbestos sheeting as thermal insulation for electrical boxes
- Asbestos millboard — a paper or cardboard form of asbestos
- Asbestos cement and asbestos insulation mixed linings
- Woven asbestos textile fuse linings

Asbestos debris and dust

When working in older electrical cabinets and boxes, be aware that they often contain debris and dust that could include asbestos fibres. This debris is often left over from previous drilling and installation, such as removal of asbestos resin-board, asbestos millboard or even old asbestos insulation. This is extremely dangerous as the fibres can become airborne and you could breathe them into your lungs.

Running cables

Always take appropriate safety precautions including using appropriate PPE when running cables through asbestos containing materials. Also beware that asbestos-containing materials can be hidden because they have been covered over from previous renovation or maintenance work.

In ground pits and conduits

Asbestos cement was the standard material for construction of telecommunication pits, electrical connection pits and in some states water and gas meter covers. All non-plastic telecommunications pits should be treated as potentially containing asbestos.

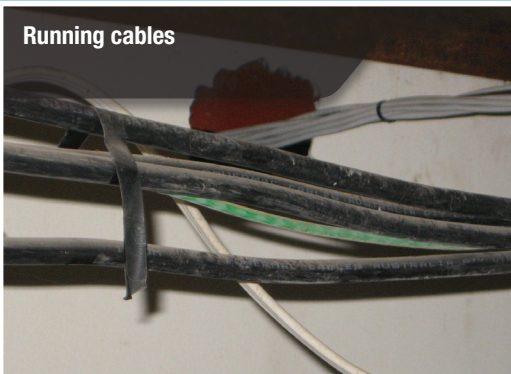
Air-conditioning ductwork

Asbestos-containing millboard was widely used, often surrounding reheating banks or coils throughout the ductwork of air conditioning units. It is still present in many older air-conditioning ducts.

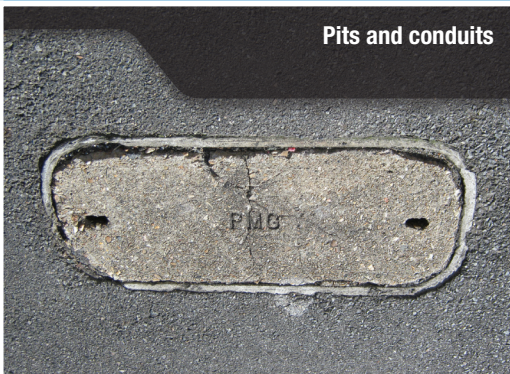
Also, look out for...

- > Asbestos cement sheeting used in **ceilings, roofs, eaves** and **wet area walls**, for example in kitchen and laundries.
- > Asbestos used in the **backing of vinyl flooring** and as **carpet underlay**.
- > **Asbestos contamination in soil** occurs as a result of poor demolition and asbestos removal practices or where asbestos waste has been illegally dumped.

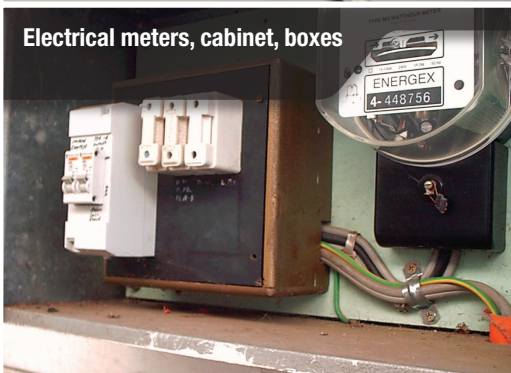
Running cables



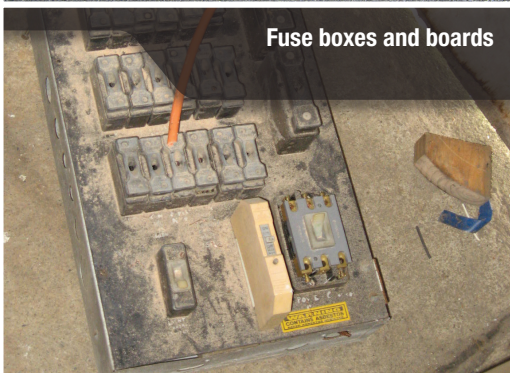
Pits and conduits



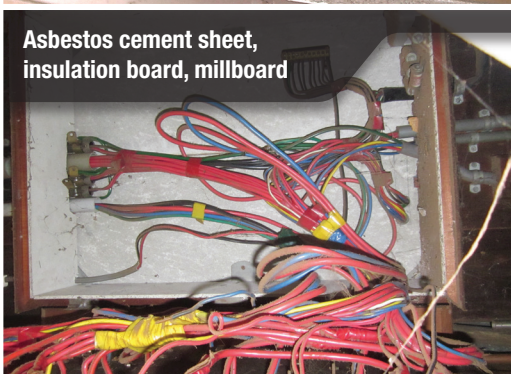
Electrical meters, cabinet, boxes



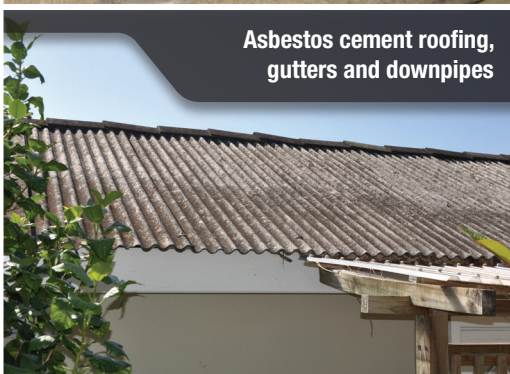
Fuse boxes and boards



**Asbestos cement sheet,
insulation board, millboard**



**Asbestos cement roofing,
gutters and downpipes**



Eaves, ceilings



Asbestos-resin board dust



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.

Electricians carrying out work involving asbestos materials – including cutting holes into asbestos sheeting for installing cables – must:

- be trained in asbestos identification, safe handling and control measures
- use equipment designed to capture or suppress airborne asbestos, and
- 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 electricians 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!

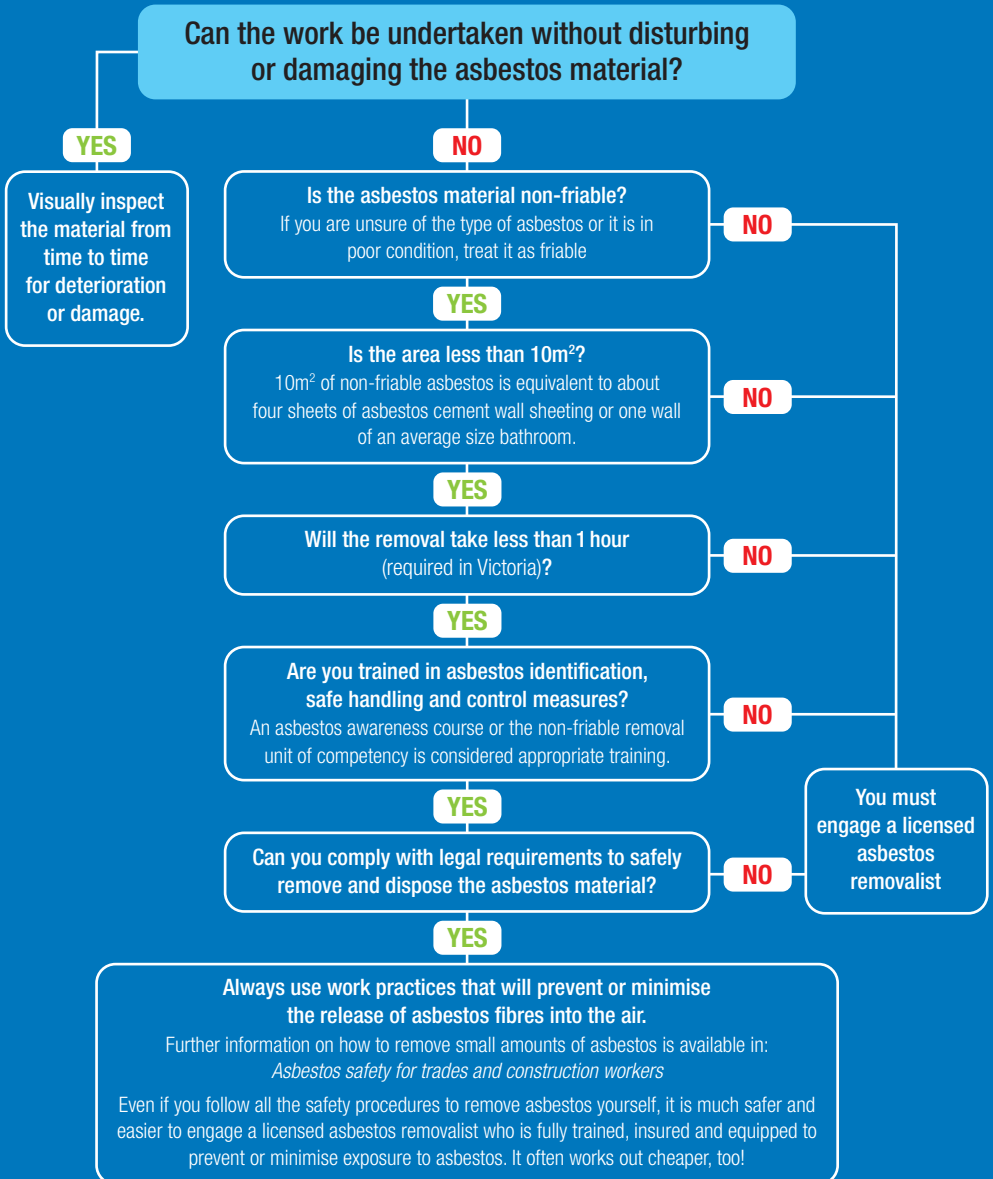
You also may not be protected by your insurance if something goes wrong because most regular insurance policies exclude asbestos liabilities.



Things to consider before starting a job

Not sure whether a material contains asbestos?

- Ask to see the asbestos register, or
- ask an asbestos professional for advice and have a sample tested, or
- 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
- ✓ 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

