



Australian Government

Asbestos Safety and Eradication Agency



Asbestos awareness information for electricians

Electricians can be exposed to asbestos in a wide range of field specialties; from power stations to fixing up a cable in a street pit or conduit to a suburban home.

Household electrical asbestos

Main electrical meters, fuse boxes and boards hold a number of asbestos-containing materials like based resin board; generally black in colour with brand names such as "Ausbestos" or "Zelemite" stamped on them. 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 millboard is like a paper or cardboard form of asbestos. (See figures 4 & 5)



Figure 1: Asbestos based resin mounting boards used across Australia.



Figure 2: Asbestos cement and asbestos insulation mixed linings inside the electrical box itself.



Figure 3: Woven asbestos textile fuse linings are common for large and small fuses.

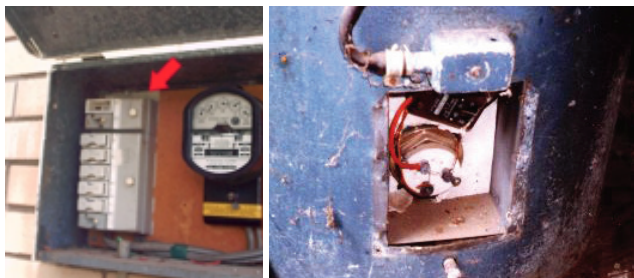


Figure 4: Asbestos millboard behind a fuse panel and inside a hot water service unit. Both used to be very common.

➤ Older boxes or boards:

In older electrical cabinet/boxes, quite often there is already asbestos-containing debris inside from previous drilling/ installation work. This can be in the form of asbestos-resin board dust, asbestos millboard debris, asbestos cement or asbestos insulation board debris. This can be particularly dangerous as opening the box or cabinet will be enough to cause asbestos fibres to become airborne and potentially “in your face”.



Figure 5: Asbestos millboard, asbestos resin board debris and asbestos insulation board debris in the bottom of electrical cabinets.



Figure 6: Discarded asbestos waste onsite. Often you will find asbestos debris discarded such as this asbestos insulation board ceiling pieces left lying in the roof, discarded electrical backing board, entire fuse box and asbestos cement pieces where a ceiling extractor has been installed.

➤ Running cables

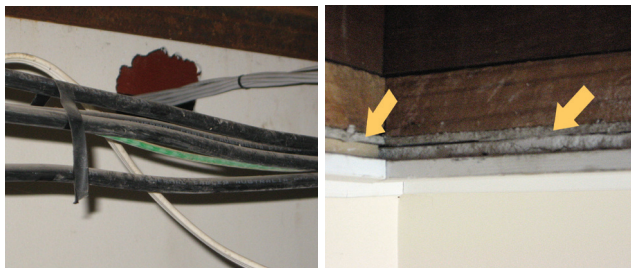


Figure 7: Take appropriate safety precautions including P.P.E. when running cables through asbestos and do not leave an asbestos mess for next time. The ongoing renovation boom in Australia has resulted in asbestos-containing materials being hidden to be found later by another tradesperson.

➤ In ground pits and conduits



These areas are all on top of regular types of asbestos-containing materials encountered in a residence such as roofs, walls, ceilings, soffits or eaves linings.

What are some of the common electrical activities I need to take care with?

Drilling and cutting of asbestos-containing materials is one of the biggest risks to electricians; whether it is friable or non-friable.

Friable means you can break it up with just your fingers. For example, millboard or asbestos insulation board is friable, asbestos cement pipe or asbestos based resin board is generally non-friable. If you can crush it up with your fingers, it means it's easy to breathe in and you risk getting an asbestos-related disease.

Safety tips

Keep a cartridge half face mask (P2) and some additional paper (P2) disposable masks on hand in your toolbox as backups which you can dispose of appropriately later.

Keep some important equipment in your work vehicle like a water spray bottle, disposable overalls, gloves, a 200 micron thick plastic bag to seal the waste material properly and duct tape. That way you are not leaving the asbestos lying around as shown in the photo of the discarded asbestos resin board, which was left on the ground outside someone's house.

Try not to give in to the "she'll be right this time" mindset in order to get a job done faster. Even though the asbestos fibres that can harm you are invisible to the human eye, they are there and you can easily take them home with you to your family! Electricians are one of the fastest growing job categories with increasing cases of asbestos-related disease in Australia, so don't risk it.

Asbestos fibres the size of 3-5 microns long and 1-2 microns wide can easily get stuck in your lungs. The easiest way to control exposure to asbestos is to not make dust and don't put your unprotected face near it if you do!

This pamphlet does not go into specific procedures because of the variety of situations and the number of readily available training resources for specific electrical tasks.

A simple P2 paper mask, properly fitted and worn every time you drill into something could save your life!

For more information contact the work health and safety regulator in your state or territory.

Why is it important for electricians to be aware of asbestos before beginning work?

Asbestos is a known carcinogen, and inhaling asbestos fibres is associated with diseases including pleural disease, asbestosis, lung cancer and mesothelioma. Even limited or short-term exposure to asbestos fibres can be dangerous.

If a property was built or renovated before 1990 it is likely to contain some form of asbestos material. Due to its prevalence in Australian homes, it is important to know whether the property you are working on contains asbestos and how to avoid disturbing it.

Asbestos in good condition that is unlikely to be disturbed poses minimal health risk, however airborne fibres are easily generated either through weathering or from building related activity such as drilling, cutting or sanding. It is important to know whether asbestos is present before you begin work to ensure that it remains undisturbed.



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