

Painting undamaged low density asbestos fibre board (LDB)

Work covered by this LDB approved method

All persons conducting a business or undertaking (PCBUs) and their workers preparing and painting undamaged LDB for protection¹ or for decoration, must comply with this LDB approved method. Alternatively, they can follow a method that provides an equivalent or higher standard of work health and safety to that outlined in this LDB approved method.

Risks of working with LDB

LDB² is an asbestos containing material (ACM) with a high percentage of asbestos content loosely bound in a calcium silicate matrix. It was sometimes used as a sheeting for walls and ceilings in buildings constructed between 1950 and the early 1980s. Due to the softness of LDB and the high asbestos content, work on LDB must be performed carefully. If it is broken, removed or disturbed during maintenance and service work activities without adequate controls, there is a greater potential for asbestos fibres to be released into the living or working areas than there is for non-friable or bonded asbestos cement products. LDB is classed as a friable ACM and must only be removed by a class A licensed asbestos removalist.

Section 419(3)(c) of the Queensland Work Health and Safety Regulation 2011 (the Regulation) only allows for maintenance and service work to be performed on non-friable asbestos or ACM. To allow for restricted maintenance and service work to be performed on friable LDB, this LDB approved method has been approved by the regulator under section 419(4) of the Regulation.

This LDB approved method must only be used where the work involves painting LDB that is in good condition and undamaged.

If the LDB is damaged, it must first be repaired under strict adherence with [LDB approved method *Minor repairs and minor damage to low density asbestos fibre board*](#).

The use of sandpaper or other abrasive methods are not permitted on painted or unpainted LDB.

Competency requirements

The work outlined in this LDB approved method is defined as asbestos-related work under the Regulation. The Regulation requires that workers carrying out asbestos-related work are trained in the identification and safe handling of, and suitable control measures for, asbestos and ACMs. Training in relation to asbestos control procedures outlined in this LDB approved method must include:

- identifying LDB
- donning and removing the relevant personal protective equipment
- decontaminating self, equipment and the work environment

¹ After painting, update the asbestos register/management plan

² LDB has very similar physical properties to asbestos insulating board (AIB).

- transport and disposal of asbestos waste.

Guidance on the minimum mandatory performance criteria for these training elements and training materials can be found at www.asbestos.qld.gov.au.

Workers can complete the training independently by accessing specified online training materials, or the content can be incorporated within other training programs or packages, and provided directly by an employer, a training provider engaged by an employer or a registered training organisation, as long as it meets the training elements and performance criteria.

Evidence of completing this training must be documented, kept, and provided to Workplace Health and Safety Queensland inspectors on request. Workers must complete LDB training at least every five years and must be competent in each of the training elements, as well as competent to perform the trade related skills relevant to each of the approved methods.

Required equipment

Essential equipment for minor repairs to LDB

- 200 micrometre (μm) thick plastic drop sheets for under the work area and for decontamination purposes
- Duct or fabric tape
- Large disposable multipurpose cleaning wipes (23cm x 29cm)
- 200 μm thick plastic waste bags labelled 'asbestos'
- Sugar soap wipes or spray on liquid sugar soap
- Paint
- Low-pressure sprayer, brush or roller
- Spray bottle containing water
- Glue or acrylic paint to seal the exposed edges
- Spray bottle containing water and PVA glue mixed in a 5:1 ratio
- Barrier tape, barricade mesh, temporary fencing etc.
- Asbestos warning signage.

Personal protective equipment (PPE)

- Disposable coveralls fitted with a hood (type 5/6).
- Consider using dedicated, non-porous boots without laces for asbestos work only.
- If not using dedicated boots, then use boot covers over the top of non-porous boots without laces.
- Respiratory protective equipment (RPE) that has been fit tested to the user, and at a minimum is a P2 disposable particulate respirator and compliant to *AS/NZS 1716 Respiratory protective devices*. Workers must be clean shaven, have been fit tested to the make and model respirator being used and must conduct a fit check to ensure correct fit and seal prior to the work commencing. A current fit-test record must be available.
- A full-face shield if work is being performed overhead.
- Other PPE as necessary e.g. hearing protection.

Before work begins

Step 1: Conduct a risk assessment

Prior to commencing work under this LDB approved method, a risk assessment that includes the following must be performed and documented by a competent person³:

- Condition of the LDB.
- Likelihood of the painting method releasing airborne asbestos fibres.
- Likelihood of asbestos exposure to workers and workplace occupants and contamination of the workplace.
- Job-specific control measures as outlined in this LDB approved method.
- Other hazards that may impact the work (e.g. working at height, heat stress, etc).

Step 2: Planning your work

- If possible, perform the work outside the 'normal' facility operating hours and only when the room is unoccupied.
- Restrict access to the immediate area where work on the LDB is carried out, known as the asbestos work area (AWA) by erecting barriers (plastic hazard warning tape is an acceptable barrier in most cases).
- Establish a buffer zone to separate the public access areas and the AWA by erecting barriers. The buffer zone includes all entrance and exit points to the asbestos work area.
- Prominently display appropriate asbestos warning safety signage at the boundaries of the AWA and the buffer zone e.g. 'Asbestos work in progress'.
- Arrange with the person who engaged the PCBU to be available to perform a visual inspection of the work area after the work and area decontamination is completed.
- If air monitoring is being performed, arrange for an occupational hygienist or licensed asbestos assessor to commence the air monitoring. Air sampling filters must be counted by a laboratory with NATA accreditation for the method.

Note: Air monitoring is not mandatory if this LDB approved method is followed, because air monitoring conducted during validation of the controls demonstrates airborne asbestos fibre concentrations were controlled to 0.01 fibres/mL or less⁴.

Conducting the work

Step 3: Set up work area

- Prepare the actual work area in the AWA. Under the area to be cleaned and painted, protect all surfaces in a three-metre radius with a 200µm plastic sheet taped securely to the floor.
- Protect nearby surfaces from contamination. Remove items from the area if possible and cover remaining items with 200µm thick plastic sheeting, and secure with duct tape to non-asbestos surfaces.
- Prepare a personal and equipment decontamination area in the buffer zone adjacent to the entry point of the AWA⁵. Use one 200µm plastic sheet (drop sheet) large enough to fit all decontaminated items and allow for personal decontamination. Tape the sheet securely to the floor.
- Close doors and windows etc.
- Shut down air conditioning and ventilation systems, if safe to do so.

³ A person who has acquired through training, qualification or experience, the knowledge and skills to carry out the task.

⁴ In the unlikely event that air monitoring results are > 0.01 fibres/mL of air, the person who performed the work related to this LDB approved method must immediately phone Workplace Health and Safety Queensland and seek advice regarding decontamination of the work area.

⁵ N.B. as this method does not involve disturbance of the LDB, one decontamination area is sufficient.

- Seal ducts and vents with 200µm plastic sheeting and tape.
- Identify other hazards e.g. falls from height.
- Wear the appropriate PPE and RPE before commencing the task.

Step 4: Paint the LDB

- Prepare the surface for painting in the following way:
 - If needed, removing dust by cleaning surface with wet wipes. Use the wet wipe only once and dispose of into the waste bag.
 - If needed, using the sugar soap spray and a wet wipe or a sugar soap wipe to clean the surface, using a circular motion.
 - Care must be taken to not breach any existing paint barrier which may release airborne asbestos fibres.
 - Use this technique until the whole area has been cleaned.
 - Use wet wipes to clean up any sugar soap slurry.
 - Dispose of wet wipes and sugar soap wipes into a waste bag.
- Apply the paint, preferably by low-pressure spraying.
- Spray using a sweeping motion.
- If painting by brush or roller, do so gently and avoid concentrating on one area to reduce surface damage.

Step 5: Decontamination of work area and equipment

Workers must wear PPE and a respirator during clean up and decontamination.

Decontaminating the asbestos work area:

- Dispose of paint brushes and rollers into a waste bag.
- Do a preliminary clean of tools and equipment by using a spray bottle with water and wet wipes. Then transfer tools and equipment onto the personal/equipment decontamination drop sheet for further cleaning.
- Return to the work area and ensure all work is completed and any debris on the floor drop sheet and plastic covering the furniture and surrounding items is removed by wet wiping.
- Wipe work area and adjacent surfaces with wet wipes. Use the wet wipe only once and dispose of into a waste bag.
- Spray the water/PVA glue mixture to wet down the work area drop sheet and the drop sheets covering surfaces and furniture within the AWA. Fold the drop sheet in on itself a number of times, standing on the clean face of the freshly folded drop sheet when each fold is completed and place into a waste bag.
- Transfer all waste bags, after being sprayed with water/PVA glue mixture to the decontamination area.
- Reinspect the work area to ensure it is free of debris.

Decontaminating equipment:

- While standing on the layer of plastic in the personal/equipment decontamination area, complete the cleaning of the tools and equipment by wet wiping and move these off the decontamination drop sheet. Use the wet wipe only once and dispose of into a waste bag.
- Then commence personal decontamination.

Step 6: Personal decontamination

- Personal decontamination must be done each time a person leaves the AWA.
- Conduct personal decontamination while standing on the drop sheet in the personal/equipment decontamination area:

- Use a spray bottle with water to dampen coveralls and disposable wet wipes in a gentle 'patting' action, as rubbing can disturb asbestos fibres. Use the wet wipe only once and dispose of into the waste bag.
- Where there are two workers, they can help to decontaminate each other.
- Remove gloves (if used).
- Peel off disposable overalls by rolling them outwards down to the ankles. They should be inside out when they have been removed.
- If you used disposable boot covers, remove them while standing on the clean inner surface of the coveralls and put them in the asbestos waste bag, along with the coveralls. Clean your boots with wet wipes and place wet wipes in waste bag.
- If you are using dedicated boots, wet wipe them (place used wipes into a waste bag) and bag them into a 200µm plastic bag to only be used for work on asbestos materials. Goose neck bag and tape closed with duct tape.
- Use the spray bottle and water/PVA glue mixture to wet down the decontamination area drop sheet. Fold the final drop sheet in on itself several times and place the folded final drop sheet into a waste bag.
- Clean your hands with wet wipes and place the wet wipes in the waste bag.
- Finally, remove your disposable respirator and place into the waste bag. If using a reusable respirator refer to the additional steps below.
- Clean your hands again with wet wipes and place the wet wipes in the waste bag.
- Gather the top of the waste bag shut to ensure that air from the bag is not expelled into your breathing zone. Duct tape the asbestos waste bag closed by goose necking the bag.
- Double bag all the asbestos waste bags placing each into an outer waste bag labelled 'asbestos waste' and seal by goose necking.
- Dispose of double wrapped asbestos waste as regulated waste in accordance with the Queensland *Environmental Protection Act 1994*.

Additional steps for cleaning and storage of a reusable respirator, if used:

- Clean your hands with a wet wipe paying attention to under the fingernails if gloves were not used and put wet wipe into waste bag.
- Wipe the outside of respirator down, including the outside of the filter, with wet wipes while still wearing it. Use each wet wipe only once and place into the waste bag.
- Clean your hands with wet wipes again and place the wet wipes in the waste bag.
- Remove the respirator.
- Separate and dispose of the prefilter pad.
- Clean the inside of the respirator with wet wipes.
- Remove the filter and finish cleaning the respirator.
- Place the respirator in a dedicated storage container.
- Check filter disposal date and place expired filters in waste bag.
- If filter cartridge is in date, wet wipe the inner and outer faces of the filter and store in a dedicated storage container.
- Clean your hands with wet wipes again and place the wet wipes in the waste bag.
- Seal the waste bag containing drop sheets and other waste by gathering the top of the waste bag shut to ensure that air from the bag is not expelled into your breathing zone. Duct tape the waste bag closed by goose necking the bag.
- Double bag all the asbestos waste bags placing each into an outer waste bag labelled 'asbestos waste' and seal by goose necking.
- Dispose of double bagged asbestos waste as regulated waste in accordance with the Queensland *Environmental Protection Act 1994*.

Step 7: Clearance and checking off

- The person who performed the work must visually inspect the area to make sure that it has been cleaned properly.
- Clearance air sampling is not normally required. However, if air monitoring is being performed, it should only be conducted by an occupational hygienist or licensed asbestos assessor.
Note: Air monitoring is not mandatory if this LDB approved method is followed because air monitoring conducted during validation of the controls demonstrates airborne asbestos fibre concentrations were controlled to 0.01 fibres/mL or less.
- Where a person has been engaged to perform the work, the person or PCBU engaged to do the work and the person who engaged the PCBU must both visually inspect the area to make sure it has been cleaned properly.

Other hazards to consider

- Work at height—take precautions to avoid falls.
- Electrical hazards—get a licensed electrician to isolate and reconnect electricity supply if necessary.
- There may be other hazards—you need to consider them all.



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