Drilling holes in asbestos cement (AC) and other highly bonded materials

What this sheet covers
This sheet describes good practice when you need to drill holes in asbestos cement, bitumen products, floor tiles or other highly-bonded materials containing asbestos.

For asbestos insulating board, see sheet a1. For textured coatings, see sheet a26.

Preparing the work area
- Ensure safe access.
- Restrict access – minimise the number of people present.
- Close doors. Use tape and notices to warn others.
- If feasible, also restrict access to the rear of asbestos material. If drilling a roof from outside, segregate the area beneath.
- If access to the rear is not possible, warn the building owner that this area is contaminated.
- Ensure adequate lighting.

Non-licensed tasks

Essential information
Important: You must read sheet a0 Introduction to asbestos essentials
Also read the following sheets:
em0 Risk assessments and plans of work
em1 What to do if you discover or accidentally disturb asbestos during your work
em2 Information, instruction and training
em6 Personal protective equipment (including RPE)
em7 Using damp rags to clean surfaces of minor asbestos contamination
em8 Personal decontamination
em9 Disposal of asbestos waste

Asbestos cement tiles on a roof
Interior floor tiles
Drill cowl to contain drilling debris
Use a hole cutter for holes greater than 20 mm
Other hazards
Work at height – see www.hse.gov.uk/work-at-height. Take precautions to avoid falls.
Slips and trips – see www.hse.gov.uk/slips. Floors protected with polythene become very slippery when wet.
There may be other hazards – you need to consider them all.

Equipment
- 500-gauge polythene sheeting and duct tape
- Warning tape and notices
- Drill – manual or powered, set at the lowest speed
- Drill bit, or hole cutter for holes greater than 20 mm diameter
- Masking tape
- Thick paste, eg wallpaper paste or shaving foam, or a drill cowl to contain drilling debris
- Mastic or sealant for gaps
- Plastic or metal sleeve to protect hole edges
- Class H vacuum cleaner (BS 8520) (if available – see sheet em4)
- Bucket of water and rags
- Asbestos waste bag
- Clear polythene bag

Personal protective equipment (PPE) – see sheet em6
- Provide:
  - disposable overalls fitted with a hood;
  - boots without laces (laced boots are hard to decontaminate);
  - respiratory protective equipment (RPE).

Procedure
- Protect nearby surfaces from contamination. Cover with 500-gauge polythene sheeting and fix with duct tape to non-asbestos surfaces.
- Cover the drilling point and the rear (if accessible) with masking tape to prevent the edges crumbling.
- For cable and pipework, make the hole slightly bigger than required.
- Cover the drill entry and, if accessible, exit points, with a generous amount of paste, foam or a drill cowl.
- Drill through the paste, foam or cowl.
- Use Class H vacuum (if available) to control fibres at source – see sheet em4.
- Clean off the paste, foam and debris with damp rags and remove the masking tape. Or remove the drill cowl and clean the surface. Clean the back surface with damp rags, if accessible.
- Rags and paste or foam contain dust and fibres. Dispose of as asbestos waste.
- Seal the drilled edge with sealant.
- Insert a sleeve to protect the hole’s edges from cabling etc.
Drill through masking tape covered with paste or foam, or use a drill cowl connected to a Class H vacuum cleaner as local extraction. Seal drilled edges with sealant.

Cleaning and disposal

- Clean the equipment and the area with Class H vacuum (if available) and/or damp rags.
- Put debris, used rags, polythene sheeting, paintbrush and other waste in the asbestos waste bag and tape it closed.
- Put the asbestos waste bag in a clear polythene bag and tape it closed.
- Disposal – see sheet em9.

Personal decontamination

See sheet em8.

Clearance and checking off

- Visually inspect the area to make sure that it has been cleaned properly.
- Clearance air sampling is not normally required.
- Get the premises owner, dutyholder or client to check off the job.