

Safety with Asbestos

Information Sheet

This information sheet provides a general overview of asbestos, its health effects and the legislation applicable to asbestos. It is targeted at employers, employees and safety representatives and will be of particular interest to workers who may encounter asbestos containing materials (ACMs) during their work activities.

What is asbestos?

Asbestos is the name for a group of natural occurring mineral fibres which are strong and both heat and chemically resistant. There are three main types of asbestos found in Ireland – chrysotile (white asbestos), amosite (brown asbestos) and crocidolite (blue asbestos). Breathing in air containing asbestos fibres can lead to asbestos-related diseases. These are mainly cancers of the chest and lungs and there is no cure for these illnesses. There is usually a long time delay between first exposure to asbestos fibres and the diagnosis of a disease. This can vary between 15-60 years. There are no known safe levels of exposure but clearly the more asbestos fibres you breathe in, the greater the risk to your health. That is why it is important that everyone who works with asbestos should take strict precautions to reduce the amount of asbestos fibres in the workplace.

Where can asbestos be found?

Most asbestos containing materials (ACMs) were installed between the 1960s and the mid 1980s with asbestos cement in use until 2000. The use of asbestos and ACMs was banned on a phased basis under legislation enacted in 1994 and 1998, with a general prohibition introduced under the European Communities (Dangerous Substances and Preparations) (Marketing and Use) Regulations 2000 (S.I. No. 107 of 2000). However, products or materials containing asbestos, which were already installed or in service prior to these regulations, may remain in place until they are disposed of or reach the end of their service life. As a result, there is still potential for exposure to asbestos in a variety of workplaces due to the large quantities of asbestos and ACMs which were used in buildings in the past. Much of this asbestos is still there and cannot be easily identified from its appearance. The only way to be certain that a building or workplace has asbestos is to have an asbestos survey carried out a by competent person. In order to verify that a material contains asbestos, the material has to be assessed and microscopically examined by a competent person.

Asbestos was most commonly used as:

- ▲ A spray coating on steel work, concrete walls and ceilings, for fire protection and insulation.
- ▲ Insulation lagging in buildings and factories, on pipework and for boilers and ducts.
- ▲ Asbestos insulating board, such as Asbestolux and Marinite, used as wall partitions, fire doors, ceiling tiles, etc.
- ▲ Asbestos cement products such as sheeting on walls and roofs, tiles, cold water tanks, gutters, pipe and in decorative plaster finishes.

▲ Asbestos bituminous products such as roofing felt, gutter linings, damp proof courses, mastics and adhesives used for floor tiles and wall coverings.

Who is at risk from asbestos?

The risk associated with exposure to asbestos relates to the possibility that the fibres within the ACM can become released into the air and are then inhaled. Therefore, unless the ACM is in poor condition or has been disturbed or damaged the risk of exposure is minimal.

Nowadays, the people most at risk from exposure to asbestos include general maintenance staff, construction workers, plumbers, electricians, fitters, cabling engineers, computer installers, demolition workers and asbestos removal workers. ACMs can be inadvertently disturbed during maintenance, repair or refurbishment works on a building. For example, drilling, cutting or other disturbance of existing ACMs can release asbestos fibres into the air which can be breathed into the lungs.

Many of the installations which were installed in the past are now getting old. As they deteriorate they are in greater need of maintenance and in some cases replacement. It is essential that adequate precautions are taken to ensure that personnel are not exposed to asbestos fibres during any maintenance, repair or refurbishment work.

What can I do to protect my own health?

Remember, there is no cure for asbestos related diseases. Before starting any work, ask "Has an asbestos survey been carried out?" If asbestos has been identified in the survey and you are likely to come into contact with it, get advice from those in charge before you start work.

If you uncover any hidden material or dust which you suspect may contain asbestos, **stop work immediately and get advice from a competent person**. Check whether the material has been identified in the asbestos survey and verify that it does not contain asbestos. If the survey fails to confirm whether the material contains asbestos or not, the material must be tested by a competent person before work can be resumed.

If you damage any asbestos containing material, **stop work immediately and get advice from a competent person**. Remember asbestos cement roofs are fragile – don't walk on them.

Never handle, disturb or remove asbestos insulation yourself. The law allows only trained personnel to do this in conformity with strict regulations and controls.

Working with Asbestos Containing Materials (ACMs)

Not all asbestos containing materials present the same risk. Any work involving ACMs which when disturbed, are liable to release significant quantities of asbestos fibres (for example, work with asbestos insulation and insulating board), must be carried out by specialist asbestos contractors. In the case of asbestos products where the asbestos fibres are tightly bound (for example, asbestos cement roofs) and the material is in good condition, specialist asbestos contractors may not be necessary. Nonetheless, stringent precautions will have to be observed during such work.

Always follow safe working procedures for asbestos, which aim to prevent or reduce dust. For example:

- ▲ Keep ACMs (including wastes) damp while you work on them.
- ▲ Do not use power tools on ACMs, they create dust; use hand tools instead.

- ▲ Use Personal Protective Equipment (PPE). The type of PPE used must be based on risk assessment but may include suitable respiratory protective equipment (RPE), disposable overalls, etc.
- ▲ Ensure that you are properly trained to use any RPE, you know how to fit it properly and that it is clean. If the RPE has a separate filter, ensure that it is changed regularly. Dispose of used and unwanted RPE and filters as asbestos waste. Report any defects in equipment to your employer.
- ▲ Do not allow waste to accumulate clear it up as you go. Do not let vehicles drive over it and crush it.
- ▲ Put asbestos waste in a suitable sealed container such as a heavy duty polythene bag. Then put it in a second bag and label it to show that it contains asbestos.
- ▲ Clear up all asbestos dust using a dustless method. A special type of vacuum cleaner (Type H) which has a high efficiency filter should be used. If not, use damp cloths and dispose of them as asbestos waste. Do not use brooms or brushes.
- ▲ Wash your hands and face before eating, drinking and smoking and at the end of the day's work. Remember that people who smoke and are exposed to asbestos fibres are at even greater risk of developing lung cancer.
- ▲ Do not take home any asbestos contaminated overalls for washing. Use disposable overalls and dispose of them as asbestos waste.

What should my employer do to protect my health?

- ▲ Identify any ACMs on site before work commences.
- ▲ Assess the risks to your health from any work that you do, and decide what precautions need to be taken to protect you.
- ▲ Where possible, plan any work to avoid disturbing the ACMs. ACMs should only be worked on if absolutely necessary.
- ▲ Prevent your exposure to asbestos or do all that is reasonably possible to keep the amount of asbestos fibres in the air to a minimum this is achieved by using specialist asbestos contractors for all work activities involving significant risk of exposure to asbestos fibres. Specialist contractors must use suitable controls, for example, enclosures, dust extraction equipment and decontamination units.
- ▲ Provide information, instruction and training so that you know the risks and the precautions you should take.
- ▲ Before starting any work where ACMs are present, your employer must carry out a written assessment of the likely risk of exposure of employees to asbestos (a risk assessment) and prepare a written plan of work (also known as a Method Statement).
- ▲ Issue you with respiratory protective equipment when necessary, ensure that you know how to wear it correctly and explain why it is needed. If you are unsure whether you should wear RPE, ask those in charge of the job. Different types of RPE are suitable for different jobs and for different amounts of asbestos in the air. The selection of suitable RPE must be based on the risk assessment. All RPE must be CE marked and traceable to a European Standard. Your employer must make sure you have the right type of mask for the work you are doing and that it fits you properly.
- ▲ Issue you with disposable protective clothing where your work is likely to result in asbestos dust getting onto your clothes.
- ▲ Provide adequate washing facilities and suitable places for eating and drinking.
- ▲ Dispose of waste containing asbestos properly.

▲ Inform you of the results of any measurement of asbestos dust in the air in your work area.

Exposure Limit Value and Notifiable Asbestos Processes

The exposure limit value for asbestos means the maximum permissible concentration of asbestos fibres in the air at the workplace, to which workers may be exposed. The value is measured or calculated in relation to an eight–hour reference period (i.e. the duration when workers are normally at the workplace). The exposure limit value for all types of asbestos is 0.1 fibres /cm^3 of air.

Based on a written risk assessment, where the planned asbestos–related work activity will expose or could expose workers to a concentration of asbestos fibres in air in excess of the exposure limit value, an employer must submit a written notification to the Health and Safety Authority 14 days before commencing any work. For example, in the case of an asbestos cement roof where the asbestos fibres are tightly bound, the material is in good condition and safe working procedures are stringently adhered to, the exposure limit value would not be expected to be exceeded and notification would not normally be necessary. For work with ACMs that can easily release asbestos fibres e.g. asbestos lagging, asbestos insulating board etc., the risk profile and exposure level would be higher and this work would require written notification to the Authority.

What legislation is applicable to asbestos?

The Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006 (S.I No. 386 of 2006), apply to work where there is or may be asbestos fibres present. These regulations apply in particular to any person or employer working with or removing asbestos.

The European Communities (Dangerous Substances and Preparations) (Marketing and Use) Regulations 2003 (S.I. No. 220 of 2003), which replaced the 2000 regulations, prohibit the placing on the market or use of all type of asbestos or asbestos-containing materials or products, including chrysotile (white asbestos) and asbestos cement. The legislation, therefore, prohibits the use, re-use, sale, supply, further adaptation etc. of asbestos and asbestos containing materials.

In addition, the Safety, Health and Welfare at Work (Construction) Regulations, 2006 (S.I. No. 504 of 2006), also apply to any building, installation, repair, demolition and asbestos removal works.

Where can I get further information?

You can get information about working with material containing asbestos cement in the Authority's "Guidelines on Working with Materials Containing Asbestos Cement", which can be downloaded from our website at www.hsa.ie.

Further Information on safety and health in the workplace is available on our website at www.hsa.ie or by contacting the Workplace Contact Unit at 1890 289 389.