

Fragile roofs

What you need to know as a busy builder, contractor or maintenance worker

On average, nine people die every year falling through a fragile roof or roof light. Many others are seriously injured.

These accidents usually happen on roofs of factories, warehouses and farm buildings while repairing, maintaining plant, installing equipment, cleaning gutters and skylights, surveying the roof or inspecting roofwork.

This sheet can help you prevent these deaths happening during your work. Keep it safe!

If you are going to work on a fragile roof, whether you will be repairing, replacing, cleaning, painting, inspecting or surveying a roof, or working on plant or equipment on a roof, there are a few simple steps you can take to make sure all the work is done safely.

- Always assume that the roof is fragile unless you are certain it is not.
- Do not go onto a fragile roof, or ask any of your employees to go on, unless you have the right equipment and the skills and experience to use it correctly.
- Never walk along the line of fixing bolts or along the ridge. Would you walk a tightrope?
- Always plan the work – even in ‘emergency’ situations:
 - Gather as much information about the roof as you can from the client/owner/occupier for your method statement.
 - Visit the site if possible to see the condition of the roof.
- If possible, do the work without going onto the roof:
 - Sheets/skylights can often be replaced from underneath using a mobile elevating work platform (MEWP) or a tower scaffold.
 - Gutter cleaning can be done from ground level, a MEWP or a tower scaffold.

A roof can be fragile if it is not strong enough to support a person’s weight.

This includes:

- Old roof lights (sometimes painted)
- Non-reinforced fibre cement sheets
- Asbestos cement sheets
- Corroded metal sheets
- Glass (including wired glass)
- Slates and tiles in poor condition

- Inspections can be done from ground level or from a MEWP.
- Short duration work can often be done from a secured ladder or one with a ‘stand-off’ device.
- If you need to work on the roof, prevent falls through the roof using equipment such as boards with guard rails.
- Stop people and equipment falling from the edge of the roof with guardrails, midrails and toeboards, with brick guards if necessary.
- Cover or barrier-off skylights to stop people falling through them.
- Make sure ladders onto the roof are tied and secure. Consider using tower stair systems.
- If you are working on plant or equipment on a fragile roof you still need safe access and a safe working platform with handrails.
- If you don’t have all the equipment with you to prevent falling off or through the roof – don’t improvise.

What can happen if health and safety is ignored?

A 32-year-old man fell through the fragile roof of a warehouse onto a concrete floor more than 14 m below. He died at the scene. He had been working as part of a team for a contractor, cleaning the warehouse roof. His co-workers on the roof and people in the warehouse below heard a cracking noise before becoming aware he had fallen through. There were no measures in place to prevent his fall. The owners of the warehouse were prosecuted and fined £260,000 and his employer was prosecuted and fined £20,000.

What can happen if health and safety is ignored?

A 20-year-old man had been installing solar panels on the roof of a barn when he fell through a roof light. He broke his back in the 6m fall, and has suffered constant pain and not been able to work since. There had been no measures in place to prevent his fall. The man's employer, a solar panel installation company, was prosecuted and fined £30,000 and ordered to pay £27,000 costs. A technical director of the firm was also prosecuted and was fined £7300 and ordered to pay £6700 costs.

Some examples of safe systems of work



Replacing roof-light from below



Using a MEWP to inspect a vent



Cover preventing fall through skylight (image courtesy of Safesite)

Fee for Intervention

HSE now recovers the costs of time spent dealing with material breaches of health and safety law. This is known as Fee for Intervention (FFI). FFI generally applies when an inspector finds something wrong that they believe is serious enough for them to write to you about. A fee is charged for the time spent by the inspector in sorting it out. Following the simple guidance on this sheet may help you to avoid having to pay a fee.

This is just a summary – you can find out what else you need to know about health and safety at www.hse.gov.uk/construction

www.roofworkadvice.info Advisory Committee for Roofsafety (ACR)
www.roofworkadvice.info/html/is3-minor_roof_works.html

GEIS5 *Fragile roofs*
 INDG248(rev1) *Working on roofs*
 INDG401 *Working at height. A brief guide*
 INDG455 *Safe use of ladders and stepladders*

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The Working Well Together campaign aims to improve health and safety in the construction industry, particularly in small and micro businesses. For more information visit www.wwt.uk.com



This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory, unless specifically stated, and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance.