

Solar PV Installations on Asbestos Cement Sheet Roofs

1. Where is asbestos likely to be present?

Many farm and industrial buildings have profile cement sheeting. These could contain asbestos, indeed older ones are likely to contain asbestos. Asbestos was banned in 1999 so in theory any building from before this time could contain asbestos, but we have also found a building constructed in 2004 that had an asbestos cement sheet roof, clearly from an illegally stored supply that should never have been used, but this illustrates the uncertainty. Apart from the roof sheets, asbestos is also likely to be present in the ridge line, gutters, downpipes and soffits and may have been used for wall cladding.

Asbestos may be found in:
Ridge line
Roof sheets
Gutters
Downpipes (not shown)
Cladding
Soffits

2. How can asbestos be identified?

For later buildings (since 1999) the specification of sheets should be capable of being confirmed as non asbestos containing by the owner. Older cement products or products that cannot be verified will have to be sampled and sent to a laboratory to ascertain any asbestos content.



3. What sort of asbestos may be present?

There are three types of asbestos- Crocidolite (blue); Amosite (brown) and Chrysotile (white). The former two types were banned some years ago, the latter in 1999. Any of the three can be found in cement

products, but in reality blue and brown asbestos is only likely to be in sheets that are so old (and hence in poor condition) that no rational person would consider mounting a PV array on them. White asbestos remains common and in roofs that may well be in relatively good condition.

4. What is the option for PV on an asbestos containing roof?

Typically such a roof is likely to be 20 years old or more, but could be younger. It may last another 20 or so years. The array is likely to be performing for 40 years or more (although at depleted performance). On this basis we generally advise that the roof is replaced. Alternatively an array can be installed on an asbestos cement sheet roof.

5. How can an array be installed on an Asbestos roof ?

Working with asbestos needs to be undertaken by trained personnel following guidelines. Essentially any asbestos that could be released needs to be safely captured and disposed of as asbestos waste. For example, if drilling through panels the drill should be on a slow speed and the area covered in a paste or glue (such as wallpaper paste) to capture any dust or fibres. The underside should be sealed in plastic sheeting to capture any debris. See HSE leaflet a9 – asbestos essentials “Drilling Holes in Asbestos Cement and other Bonded Materials”.

6. Conclusion

Obviously it is cheaper and easier not to install on asbestos cement sheet roofs, but it can be undertaken if necessary. In most cases it is likely to be sensible to replace the roof, but there will be instances where the roof is in good condition and upon which solar PV panels (subject to the necessary training and precautions) can be installed.

This document is not exhaustive and is meant as general guidance only and the opinion of a qualified person should be sought as to the presence of asbestos or issues involving working with asbestos.