

# Concerned about Cladding?

The move towards sustainable, thermally insulated buildings, combined with modern building methods has seen a significant increase in the use of cladding systems on buildings within the last 25 years.

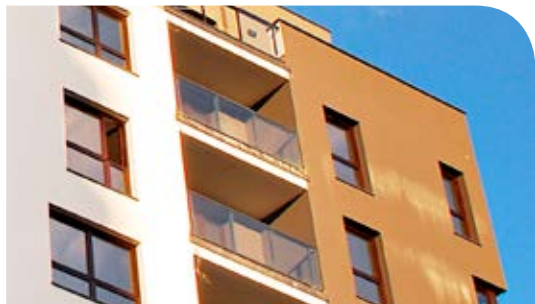
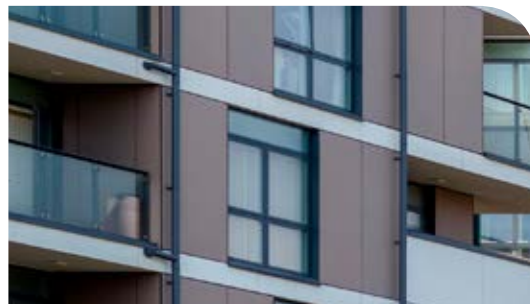
Following the tragic event at Grenfell Tower in June 2017 many organisations, businesses and property owners are concerned about the potential presence of combustible cladding and insulation materials in their buildings. You may have concerns that your own premises feature such materials.

## Cladding types

The three most common methods/systems used are Rain Screen Cladding, External Thermally Insulated Composite Systems and Insulated Composite/Sandwich Panels.

### Rain Screen Cladding

This type of cladding was used on Grenfell Tower and is commonly used to improve the aesthetics and thermal efficiency of older buildings. It is a built-up system consisting of insulation material that can be directly bonded or fixed to a solid wall, or a lining board on a steel framed building. External cladding panels are then fitted on a lightweight steel frame leaving a small air gap of 50mm between the panels and insulation to prevent condensation build-up.



### External Thermal Insulation Composite Systems (ETICS)

As with rain screen cladding this is a built up system where insulation material is directly attached to a solid wall of a building or a lining board. However here the insulation layer tends to be thicker and is directly covered with a cement render to provide weather protection. This type of cladding system is more commonly used on new builds.

### Insulated Composite Panels

Typically used to form the walls and/or roof of steel portal framed buildings, the panels consist of a central core of insulation material sandwiched between powder coated painted steel or aluminium sheets.



## Issues

The main issue with all 3 systems is whether the insulation material used is combustible or not. In addition, with Rain Screen Cladding the inclusion of the air gap provides a ready source of oxygen, so if combined with combustible insulation and a combustible cored outer panel this can cause a flue effect increasing the intensity and channelling any fire upwards, as happened with Grenfell.

A number of both combustible and non-combustible materials can be used as the insulation/core material.

The most common combustible materials used are expanded polystyrene (EPS), extruded polystyrene (XPS), polyurethane (PUR) and polyisocyanurate (PIR). Non-combustible materials include mineral wool (glass fibre), mineral wool (rock fibre) and cellular glass all of which are more expensive than foam cored panels.

## How do I know what material has been used in my building?

Identifying the exact make and core of the cladding can be difficult once the building has been constructed. Many cladding systems look similar, and most of the major manufacturers produce various versions of the same cladding system/panel using differing core materials.

Some PUR and PIR cored systems even have Loss Prevention Council approval under testing standards LPS1181 & LPS1208 and are commonly referred to as Fire Safe.

There are a number of ways to identify the exact product used and whether there is any combustible content in the cladding panel or insulation material. For buildings constructed or clad within the last 10 - 15 years information should be to hand, from:

- The Architect
- The Tender Document for the project
- The Operation and Maintenance Manual for the building.

If no information can be found, as a last resort it may be possible to remove a panel (or section) to enable identification by a qualified person. This should only be done by a competent contractor and where panels (or sections) are removed they must be re-fitted correctly and the core capped as required by the manufacturer's guidelines.

## What should I do next?

Once you have identified the materials used in your cladding system we would suggest the following measures be taken:

- Review your existing Fire Risk Assessment and fire safety measures in your building to determine whether any additional fire safety measures are necessary. E.g. hot work permits, additional fire detection, sprinkler systems, secondary escape routes.
- Review your emergency evacuation procedures for the premises, making sure all occupants/residents/visitors are aware of the fire escape routes within the building and know what to do in the event of an emergency.
- Introduce an appropriate inspection and maintenance regime of your cladding system. The inspection regime should check the general condition of cladding and include inspection of the face of the cladding system for damage and exposure of the panel core. Where damage is noted repairs should be made promptly.
- Contact your insurer and provide details of the make, model and insulation materials used.

## Further Advice and Support

If you have any concerns over existing cladding/insulated panel systems or your Fire Risk Assessment you can contact your local Fire and Rescue Service for further advice.

Ecclesiastical customers can contact our in-house team of Risk Management Surveyors, which includes property specialists who can support you with identifying cladding materials, by calling our Risk Management Advice Line on **0345 600 7531** or emailing us at **[risk.advice@ecclesiastical.com](mailto:risk.advice@ecclesiastical.com)**.

