



FIRE SAFETY – GUIDE TO COMBUSTIBLE COMPOSITE INSULATED PANELS



Composite insulated panels are commonly used in warehouses, food production facilities, cold stores and industrial buildings. While they can provide excellent insulation, certain panel types contain combustible cores which can significantly increase the severity of a fire. Fires involving these panels can spread rapidly, generate toxic smoke, lead to roof or wall collapse and often result in a total loss of the building.

From an insurance perspective, the construction of a building is a critical consideration. Businesses that use modern, fire-tested, non-combustible or Loss Prevention Certification Board (LPCB) -approved insulated panels and follow robust fire risk management practices are generally viewed as presenting a lower fire risk than those with combustible panel systems which are not approved by an appropriate body.

Understanding the Risk: Not all insulated panels perform the same way in a fire.

HIGHER RISK PANEL TYPES

- Expanded or Extruded Polystyrene (EPS/XPS) panels ignite easily and can allow fire to spread rapidly within the panel construction.
- Polyurethane (PUR) panels can also contribute significantly to fire growth once ignited.
- Both panel types can produce large amounts of smoke, burning droplets and may contribute to structural collapse.

LOWER RISK PANEL TYPES

- Mineral wool panels and LPCB-certified systems are considered the preferred solution as they provide significantly improved fire resistance.



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Top 5 Risk Management Considerations for Buildings with Composite Insulated Panels

There are several measures that can substantially reduce fire exposure and demonstrate good risk management. The following information is provided for guidance purposes only.

1. Use Approved or Non-Combustible Panels

The most effective improvement is replacing combustible panels with:

- Mineral wool cored panels.
- Approved insulated panel systems (tested to LPS1181 or PA1208).
- Panels achieving recognised Loss Prevention Standards such as LPS 1181.

Buildings constructed or upgraded with these products are less likely to experience rapid fire spread, reducing the potential for catastrophic losses and business interruption.

2. Know What Panels Are Installed

Businesses should:

- Identify panel types throughout the premises.
- Document locations.
- Label combustible panels.
- Review risk assessments regularly.

When a business is aware of the location and presence of combustible panels, they can ensure their activities including ignition sources, hazardous materials and high-value stock are stored away or operated in a segregated area.

3. Control Fire Ignition Sources

Many severe panel fires start from everyday activities such as:

- Electrical faults.
- Heating and/or hot flues passing through panels.
- Hot works (welding, grinding, cutting).
- Keeping and waste storage.
- Cooking and food preparation.
- Poor housekeeping and waste storage.

NFU Mutual recommends businesses should implement strict controls, permit systems and separation distances from combustible panels. These measures can help mitigate a fire starting in the first place.

4. Protect High-Risk Areas

Particular attention should be given to higher fire risk areas such as:

- Plant rooms.
- Electrical switch rooms.
- Cooking and frying areas.
- Battery charging locations.
- Workshop areas.

Creating fire-resistant compartments and protected zones around these activities can significantly limit fire spread and reducing claim severity.

5. Invest in Fire Protection Systems

NFU Mutual's guidance encourages consideration of:

- Automatic fire alarms.
- Remote alarm monitoring.
- Automatic fire suppression systems.
- Sprinkler protection designed to recognised standards.

Earlier detection and suppression within the premises can significantly reduce the scale of a fire loss and improve business continuity.