



# Lessons from the Grenfell Tower tragedy: the need for action

London's tragic Grenfell Tower fire, which claimed 80 lives and wrecked many more, has thrown a series of critical issues into sharp relief for property owners all over the world.

Not least it reaffirms the unwavering focus that real estate owners and operators must maintain regarding the safety of building residents, tenants and visitors.

While there were many contributing factors to the London disaster, and the results from the official public inquiry may take many months to emerge, the main cause of the rapid spread of the Grenfell fire was the flammable nature of the composite panels used to clad the tower block. Risks associated with such panels are well documented.

According to Troy Bates, Aon's Real Estate Practice Leader - Australia, while many composite panels used locally may comply with the Australian Building Code they do pose a known and significant fire risk.

"If you have a building with significant composite panel construction especially those comprising expanded polystyrene (EPS) (frequently used in food, beverage, pharmaceutical and cold storage) and there is a fire, the fire brigade may only enter the building to attempt to put out a fire if there is potential for loss of life. If there is no imminent threat to life, the brigade will most likely focus on preserving neighbouring properties given the extreme difficulty of containing and controlling an EPS fire," warned Bates.

## Understanding composite panels

Aon Risk Control & Engineering managing principal Patrick Behan explains that composite or sandwich panels have been used widely over the past 25 years, in both internal and external building construction, because of their

thermal efficiency. Such panels include EPS, Polyurethane Foam (PUR), Polyisocyanurate Foam (PIR) and Mineral Wool or Rock Fibre.

A composite panel usually consists of two metal facings bonded to a central insulating core, to form a sandwich-like panel. The result is a strong, highly insulated panel, which can be installed on top of one another to quickly build a large construction with an increased thermal efficiency.

Composite panels have also become a common external cladding material used in office, residential and industrial buildings.

However, in the event of a fire these panels melt and collapse and in many instances act as an accelerant. The performance of each type of panel in a fire will vary over differing time periods, but the final outcome is often catastrophic as seen in the Grenfell Tower fire.

While Australia has yet to endure a disaster on the scale of the Grenfell Tower, a fire involving similar cladding took place at the Lacrosse Apartments in Melbourne in 2014. The cost to rectify the cladding was around \$8.5million plus \$6 million from fire damage in addition to costs associated with temporary accommodation, and fees from expert consultants and lawyers.

Other similar fires have resulted in claims for hundreds of million dollars.

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## Audit advantage

In the aftermath of the Grenfell disasters insurers worldwide will take a pragmatic approach and quiz property owners and managers about property audits when policies come up for renewal.

Brokers and insurers should be alerted to any cladding revealed during such audits as failure to disclose something material to the insurance underwriting process could cause a coverage issue in the event of a fire. Owner operators should also be mindful that there may be reduced appetite to take on new policies for buildings featuring combustible cladding.

Depending on the age of your building, you may be able to discuss with your builder how to address the replacement of panels which may not meet Australian Standards. Many EPS, PIR and PUR panels will not fall into this category.

If the audit reveals problematic composite panels the building owner will need to mitigate the risk. They have two choices:

1. If viable, immediately replace the panels with an approved fire resistive panel; or
2. Acknowledging that replacing panels immediately is not always an option, deploy risk mitigation efforts such as those listed below:
  - Consider developing an Insulated Panel Work Permit system where large quantities of panels are in use;
  - Ensure hot work areas (including all cutting and welding equipment) are fully fire separated from insulated panel areas;
  - Avoid attaching electrical switch boards directly to insulated panels. Where absolutely necessary these should be installed by specialist contractors in accordance with panel supplier guidelines;
  - Maintain electrical equipment a minimum of 3m from insulated panels where possible;
  - For industrial property and cold store operators, battery charging units should be positioned in non-combustible areas where possible. If located against insulated panelling then a 2hr fire rated barrier material could be installed against the insulated panel;
  - Hydraulic packs in insulated panel areas should be fully banded and fitted with automatic shut off devices to limit spills;
  - All high intensity lighting fixtures (including fluorescent lights) in insulated panel areas should be fitted with covers;
  - Contractors are to be made fully aware of insulated panel controls;
  - Flammable liquids and gases should not be stored in or near insulated panel areas;
  - Combustible storage in or near insulated panel areas should be minimised at all times;
  - Avoid routing hot services (ducts, pipes, flues) where possible through insulated panels;
  - Ensure penetrations in panels are adequately sealed; and
  - Increase thermographic scanning to identify any electrical hot spots and take action to rectify.

This is an issue where lives can be at risk and proper focus is required to ensure people remain safe at work and in their homes.

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