



Defective Aluminium Cladding Could Cost Apartment Owners as much as \$50K each.

A small fire in a recently built multi-storey apartment building in Melbourne results in an urgent unplanned, unfunded upgrade which will cost as much as \$10M to correct. The fall out of this is expected to have an effect on 100's of buildings Australia wide.

In late November 2014 there was a fire in a multi-storey apartment building in Melbourne. This fire was a little unusual. It was started by a cigarette butt left on a balcony on the 7th floor. The wind blew the cigarette butt it into the corner of the balcony where it came into contact with the external aluminium cladding smouldering and eventually it set fire to the substrate or the backing material behind the aluminium cladding.

Background

Aluminium cladding is commonly used on the external surfaces of modern buildings. The cladding consists of a thin sheet of anodised aluminium with some type backing glued to the aluminium sheet. The backing or the substrate acts as a stiffener as well as having some insulation properties..

The substrate can sourced from plywood, PVC products and foam and foam composites type substrates. The external cladding is generally attached to the building by special push in clips which lock into a retainer channel attached to the external walls. When the cladding is pushed into the channel it is a permanent attachment only removable by destructive means. The panels vary in size to suit design aspects of the building from 100 x 600 mm to as much as 3600 mm x 1200 mm and larger. The installation of these panels is done whilst scaffolding is in place during the later stages of construction.

Manufacturers of aluminium cladding are spread across the world including developing economies. Some imports are much cheaper than locally made products but identical in appearance. Up until 2012 no products in this selection met the fire regulations called by the Building Code of Australia (BCA). The BCA requires the substrate to be a flame retardant and must not support combustion.

What happened

In the case of this fire a cigarette but became lodged behind the aluminium cladding and came into contact with a substrate that was combustible. A fire started in the small air space cavity behind the aluminium cladding. The fire quickly spread inside this cavity from the 7th floor and was not contained until it reached the 21st floor. Due to the heat combustible materials on the balconies also caught fire causing more damage.

No automatic fire systems were tripped and no automatic fire appliances were triggered as no sprinkler system and no fire sensors are generally installed on the outer surfaces of buildings. This fire occurred during the day it was easily noticed as it produced thick black smoke however if the same fire had occurred at night it may not have been noticed early and things could have been a lot worse.



What needs to be done

This building must have the entire external cladding replaced to comply with the BCA. There will undoubtedly be legal action and this will continue for years.

There will be a blanket requirement for similar buildings built in the last 10 years with Aluminium cladding be inspected and spot checked to ensure the building is compliant. The checking operation involves the destructive removal of a number of panels and off site testing of the substrate to access compliance with the BCA. Many buildings are simply going to fail this inspection.

The cost of the testing is quite expensive possibly as much as \$200K in taller buildings. Even if the building is found to have the approved product the building owners will have no recourse to claim back testing monies.

This is going to be a very important issue with multi-storey buildings. For buildings which have defective products installed, it is going to be exorbitantly expensive to fix.

Current owners of these buildings are going to see many special levies even before the extent of the problem is known and even before there is any rectification works begin. Selling an existing apartment to an informed person will be difficult.

How to avoid buying into a building with non-compliant aluminium cladding

Get Purchasers Strata Inspections Pty Ltd (PSI) report [here](#)

if the building is being tested we will tell you

if the building is involved in legal action we will tell you

if there are special levies we will tell you

if the building is taking loans to fix problems we will tell you

if you want to avoid nasty surprise get a PSI report

See <http://www.architectureanddesign.com.au/news/non-compliant-cladding-fuelled-melbourne-apartment>

<http://www.theaustralian.com.au/business/property/docklands-tower-blaze-exposes-dirty-secret-of-cheap-cladding/story-fniz9vg9-1227325580239>

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