

## **BUILDING PRODUCT USE BAN**

### **NOTICE UNDER SECTION 9(1) OF THE *BUILDING PRODUCTS (SAFETY) ACT 2017***

I, Rosemary Ann Webb, Commissioner for Fair Trading, Department of Finance, Services and Innovation:

**PROHIBIT** the use of aluminium composite panels (ACP) with a core comprised of greater than 30 per cent polyethylene (PE) by mass ('the building product') in any external cladding, external wall, external insulation, façade or rendered finish in:

- Class 2, 3 and 9 buildings with a rise in storeys of three or more and Class 5, 6, 7 and 8 buildings with a rise in storeys of four or more (Type A construction as defined in the Building Code of Australia); and
- Class 2, 3 and 9 buildings with a rise in storeys of two or more and Class 5, 6, 7 and 8 buildings with a rise in storeys of three or more (Type B construction as defined in the Building Code of Australia),

subject to the following exceptions:

- a) the building product is not deemed combustible by successfully passing a test in accordance with Australian Standard 1530.1-1994 'Methods for fire tests on building materials, components and structures' (AS 1530.1);

or

- b) the building product and proposed external wall assembly has successfully passed a test for both the EW (external wall fire spread) and BB (building-to-building fire spread) classifications in accordance with Australian Standard 5113 'Fire Propagation testing and classification of external walls of buildings' (AS 5113) and the proponent of the use of the building product tested to AS 5113 documents by statutory declaration that the building product will be installed in a manner identical to the tested prototype wall assembly or façade,

and

- c) the AS 1530.1 or AS 5113 test results to be relied upon to except a building product from the ban are produced by an Accredited Testing Laboratory, and describe the methods and conditions of the test and the form of construction of the tested building product or prototype wall assembly or façade, and are dated on or after 1 July 2017.

This building product use ban commences Wednesday 15 August 2018 and remains in force until it is revoked.

**ROSEMARY ANN WEBB**

**COMMISSIONER FOR FAIR TRADING**

**DEPARTMENT OF FINANCE, SERVICES AND INNOVATION**

## Notations

### **For the purposes of this Notice:**

*Accredited Testing Laboratory* means:

- i. an organisation accredited by the National Association of Testing Authorities (NATA) to undertake the relevant tests; or
- ii. an organisation outside Australia accredited to undertake the relevant tests by an authority, recognised by NATA through a mutual recognition agreement; or
- iii. an organisation recognised as being an *Accredited Testing Laboratory* under legislation at the time the test was undertaken.

*Proponent* is taken to be one of the following persons:

- i. the person recommending or specifying the use of the building product;
- ii. the person who uses the building product; or
- iii. the Owner within the meaning of the *Building Products (Safety) Act 2017* ('the Act').

*Rise in storeys* has the meaning given to it in Clause C1.2 of the BCA.

Under the Act, it is an offence for a person to cause a building product to be used in a building in contravention of a building product use ban.<sup>1</sup>

It is also an offence under the Act for a person to, in trade or commerce, represent that a building product is suitable for use in a building if that use would contravene a building product use ban.<sup>2</sup>

Part 4 of the Act makes provision for the identification and rectification of buildings where a building product the subject of a building product use ban has been used in the building for a use that is prohibited by the building product use ban. For the purposes of that Part of the Act, it does not matter if the building product was used in the building before the building product use ban is in force.<sup>3</sup>

## Reasons for Decision

On 23 March 2018, I published a Notice under section 13 of the Act (the Notice) calling for submissions by 23 April 2018 on whether a building product use ban was warranted for the use of ACPs, particularly panels containing a polyethylene core, and/or polystyrene products, and/or other similar substances in any external cladding, external wall, external insulation, façade or rendered finish on a building of 2 or more storeys (use in external cladding).

I received 28 public submissions in response to the Notice. The submissions were provided by a range of stakeholders including developers, builders, industry associations, fire safety consultants, composite panel suppliers and individuals.

In deciding whether to impose a building product use ban, I have had regard to all public submissions that were received in response to the Notice.

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<sup>1</sup> Section 15(1), *Building Products (Safety) Act 2017*.

<sup>2</sup> Section 15(3), *Building Products (Safety) Act 2017*.

<sup>3</sup> Section 17(2), *Building Products (Safety) Act 2017*.

I have also considered:

- (a) advice from NSW Fire and Rescue;
- (b) independent expert advice specifically sought by the Department of Finance, Services and Innovation from building safety professionals with relevant technical knowledge and professional expertise;
- (c) the post incident analysis report of the Lacrosse Building fire by The Metropolitan Fire and Emergency Services Board dated 25 November 2014;
- (d) the Economic References Committee, *Non-conforming building products – Interim report: Aluminium composite cladding* dated 6 September 2017;
- (e) the *Australian Government response to the Interim report: Aluminium Composite Cladding* dated 26 February 2018;
- (f) the Phase 1 expert report of Professor Luke Bisby dated 2 April 2018 submitted to the Grenfell Tower Inquiry;
- (g) the approaches which have been adopted by other Australian Regulators, namely Victoria, Tasmania and South Australia on the use of certain types of composite panelling; and
- (h) publications of the NSW Cladding Taskforce.

In reaching a decision, I have had regard to:

- the likely contribution of specific types of ACPs to building fire safety
- whether certain types of ACPs are unsafe within the meaning of the Act and should be banned from use in certain classes of building, and
- whether any compliance tests exist to sufficiently manage the safety risks posed by certain products.

Having considered all of this information, I am satisfied that the building product is unsafe for use in any external cladding, external wall, external insulation, façade or rendered finish in buildings of Type A and Type B construction, as defined in the Building Code of Australia, subject to specified exceptions. I therefore decided to prohibit the use of the building product in the terms of the building product use ban set out above. My reasons for making this decision are as follows:

#### 1) Fires which are associated with ACP with a PE core on Type A and Type B construction pose a safety risk

Recent public events have demonstrated the safety risk associated with the use of ACP with a PE core in multi storey buildings, including Type A and Type B construction. Events such as the Lacrosse building fire in Melbourne on 25 November 2014 and the Grenfell Tower fire in London on 14 June 2017 demonstrated that there are likely to be public safety risks associated with the use of certain types of cladding, including ACP with a PE core. Similar fire events in China, France and the United Arab Emirates have also been linked to the use of combustible cladding.

Fires on multi storey buildings have a range of inherent complexities resulting from the height of the building and may require more specialised equipment. Fires which are associated with external cladding consisting of ACP with a PE core, such as the Lacrosse Building fire and the Grenfell Tower fire, introduce additional risk owing to the rapid vertical spread of fire associated with these building products. Such fires must be carefully managed to respond to the potentially higher incidence of fatalities which are more likely to be caused by such a fire.

The Lacrosse Building fire was managed by an internal sprinkler system that was found to have operated well above specification in the majority of the units impacted by the fire to stop its spread. It therefore cannot be presumed that a sprinkler system would operate to mitigate the spread of fire in similar circumstances.

NSW Fire and Rescue identify building products including ACP with a PE core as a safety risk capable of causing rapid fire spread. The use of such building products may put fire fighters and occupants in unsafe situations including exposure to falling debris in the instance of fire.

2) ACP with a core comprised of greater than 30 per cent PE by mass used in contravention of the National Construction Code (NCC) poses a safety risk within the meaning of the Act

The various types of ACP are distinguished by the composition of their core. The composition of the core is important as it is considered to significantly influence the fire properties of the panel. The majority of ACPs have a core material that is a mixture of PE, mineral fillers and/or fire retardants. The CSIRO, who were asked to provide advice by the Australian Government on the various types of ACPs currently manufactured, described three 'classes' of core composition:

- 1) Less than three per cent PE – such composition produces a product classified as 'A2' ACP under European fire certification;
- 2) Approximately 30 per cent PE – such composition produces a product classified as 'FR' (fire retardant) under European fire certification; and
- 3) Approximately 100 per cent PE.

Unlike European fire certification, the NCC does not consider or make distinctions based on the composition of panels, including the core, as it requires ACP to be non-combustible as defined by AS 1530.1. However, some Australian suppliers identify their ACP products as complying with A2 or FR European standards to represent that the ACP product is non-combustible.

PE is a thermoplastic substance which has poor fire performance and is quickly prone to melting and dripping when exposed to high temperatures, such as in the event of a fire. The heat from a fire can quickly conduct through the outer ACP, noting the width of these panels is no greater than 6mm, and ignite the highly flammable core. These materials combust in a manner that makes fire response extremely challenging for emergency services.

Cladding, including ACP with a PE core of some proportion, is often used for the purposes of aesthetics to act as a cover for part or all of the external walls of a building. In the event of a fire, the use of ACP with a PE core on a multi storey building can significantly increase the amount of energy that is released by the cladding and contribute to the rapid spread of fire.

A ban directed only to ACP with a core comprised of greater than 30 per cent PE targets the impact of the product ban and focuses regulatory intervention on the types of ACP panels that are most likely to pose a safety risk. This threshold aligns with the FR European standard which is considered the benchmark for an ACP product to be of low flammability.

Given that the Victorian Building Authority also enforces a restriction on ACP with a core specifically comprised of 30 per cent or more PE by mass, it is considered appropriate to align NSW's building product use ban with the requirements of the second largest state in which construction work is performed. It is noted however that the Victorian approach differs from the NSW approach. Under the Victorian approach products are required to be submitted to the Victorian Building Appeals Board to be determined whether the proposed use of the product complies with the relevant Act and Regulations. In this regard, the Victorian approach equates to an 'approval' under the Victorian planning and building regime. The NSW approach under the proposed ban creates a specific gateway which affected products must navigate, but still requires that the product and the related construction use is separately and additionally subject to all the normal planning assessment and approvals, including compliance with the NCC, under NSW laws.

3) At present, the NCC is not sufficient to regulate building products and cannot be relied on in isolation to address the safety risks associated with the use of ACP with a core comprised of greater than 30 per cent PE by mass

The NCC is a national performance-based code which outlines mandatory performance requirements for the building and construction industry. Under the NCC, ACP with a PE core is permitted for use if the product satisfies the performance requirements of the NCC.

However, misapplication of or non-compliance with the performance requirements of the NCC raises a significant risk and concern for the safety of buildings and the community.

The operation of the NCC presents challenges to entities in the building industry and regulators. Concerns with the combustibility of external cladding (specifically ACP with a PE core) and the role of the NCC have been noted in reports by domestic and international bodies. There is evidence that NSW is directly affected as the NSW Cladding Taskforce identified over 400 buildings as “having cladding in a quantity, location and/or arrangement which potentially increases fire risks” despite the requirements of the NCC.

Victoria, South Australia and Tasmania have determined it appropriate to implement new measures in addition to existing requirements under the NCC to respond to the challenge of non-compliant cladding.

Based on the sources considered, a genuine concern exists that the NCC cannot be relied on in isolation to address the safety risks associated with the use of ACP with a core comprised of greater than 30 per cent PE by mass.

4) A building product use ban can be imposed subject to exceptions that will enable the use of the building product if a nominated test is satisfied

Expert advice and other sources which I considered identified recognised testing that applies to the building product as determined by Australian Standards and/or in certain circumstances called upon by the NCC, including AS 1530.1 and/or AS 5113. I have formed the view that the safety risk posed by ACP with a core comprised of greater than 30 per cent PE by mass can be managed if the product meets the testing requirements of AS 1530.1 and/or AS 5113. For this reason, the building product use ban is subject to exceptions that permit the use of the building product in Type A and Type B construction if the building product is tested in accordance with either AS 1530.1 or AS 5113.

AS 1530.1 is an individual product test which determines the combustibility of a building material within the criteria given in Clause 3.4 of the Standard. Separately AS 5113 sets out the procedures for the fire propagation testing and classification of external walls of buildings according to their tendency to limit the spread of fire via the external wall and between adjacent buildings. AS 5113 is more appropriate for testing entire wall assemblies or façades consisting of external cladding, rather than an individual product. This Standard is applicable to fire propagation via all external vertical or near vertical surfaces and covers all types of external wall systems, including façades, outer skins, core materials, cavities and attachments. The application of AS 5113 as part of a building product use ban is considered appropriate to ensure that building products that pose a safety risk, including to the lives of occupants, fire fighters and the community, are not used in NSW.

In order to meet the requirements of the proposed exception it is considered appropriate that tests be supported with a report from an Accredited Testing Laboratory which describes the methods and conditions of the test, the form of construction of the tested prototype. Where AS 5113 is relied upon, a statutory declaration will be required by the proponent of the use of the building product to declare that the building product will be installed in a manner identical to the tested prototype wall assembly or façade. This additional step is required to ensure that proponents understand and verify that the prototype wall assembly tested is in fact the wall assembly subsequently used and installed.

To ensure that testing takes account of the understanding of the fire performance of ACP products since the Grenfell Tower Fire, test reports against AS 1530.1 and/or AS 5113 are required to have been undertaken no earlier than 1 July 2017.