

**ITEM-19: NOM 25/07/2017 - REPORT ON NOTICE OF MOTION - PERMISSIBLE BUILDING CLADDING**

**REPORT BY: PLANNING AND REGULATORY**

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## **DIRECTOR COMMENT**

In response to the Notice of Motion dated 2 March 2017 the following information is provided.

External cladding products are typically fixed to the exterior of buildings to be decorative, provide weatherproofing or contribute to energy efficiency outcomes.

Aluminium composite panels are sandwich-type panels consisting of two aluminium faces and a core material, typically being polyethylene, mineral-based material or a combination of both. Panel thicknesses typically range between 3mm and 5mm.

There are a number of different products on the market which may appear similar but have different core material. The core material affects the fire performance of the panel. Panels which have a high proportion of mineral core are generally accepted to have a better fire performance than those with a high proportion of polyethylene core.

Although products with a high proportion of mineral core may have increased fire performance, these would still be considered combustible, unless they have been tested and proven to be non-combustible.

Under the National Construction Code (NCC) BCA Volume One, Performance Requirement CP2 requires that a building must have elements which will avoid the spread of fire in a building, in a manner appropriate to that building.

This requirement is met, in part, under a Deemed-to-Satisfy Solution for buildings of Type A and Type B Construction by non-combustible external walls (Specification C1.1 Clauses 3.1(b) and 4.1(b)).

A non-combustible external wall inhibits fire-spread via the external face of the building, thereby contributing to compliance with Performance Requirement CP2. An external cladding product that does not comply with these requirements, can only be used where it can be demonstrated through a Performance Solution (Alternative Solution) that the relevant NCC Performance Requirements can be met.

The major concern is the use of non-compliant external products on high rise buildings of Type A and Type B construction and in egress paths / path of travel where installed products do not avoid the spread of fire.

### **Current NSW Regulation (Compliance with the BCA) (Deemed-to-Satisfy Provisions)**

The BCA contains specific fire resistance requirements for a building's external surface in the NCC Volume One Section C Performance Requirements and Deemed to-Satisfy (DTS) Provisions.

The DTS Provisions of Part C1 require the external wall of Type A and Type B buildings to be non-combustible.

The Australian Standard AS1530.1 (Combustibility test for materials), is a referenced document in the (NCC) Building Code of Australia and specifies test methods to determine whether a product is non-combustible. If an external cladding passes the relevant test it would be permitted to be used on the exterior of a Type A or Type B building under the Deemed-to-Satisfy (DTS) Provisions.

The DTS Provisions through BCA Part C1.12 do, however, permit the use of certain materials that may contain some combustible elements, but are known to provide acceptable levels of fire safety and should not result in the spread of fire.

### **Performance Solution (Alternative Solution)**

External cladding products that do not satisfy the DTS Provisions can only be considered for use on a high-rise building via the development of a Performance Solution provided the product can satisfactorily demonstrate to the authority having jurisdiction that the design will satisfy the relevant BCA Performance Requirement, CP2 (a) (iv), which states that:

- *A building must have elements which will, to the degree necessary, avoid the spread of fire between buildings and in a building.*

This means an external cladding product intended to be installed on a high-rise building must demonstrate it has the capacity to avoid the spread of fire via the façade of a building to meet the fire resistance of requirements of the BCA.

### **Recent information and changes relating to External Wall Cladding**

#### New Fire Propagation Standards

Standards Australia have published a new Standard AS5113 in respect to Fire Propagation testing and classification of external walls of buildings. The standard specifies tests to be undertaken on external cladding products to demonstrate the extent to which they resist the spread of fire. Although at present this standard is not referenced in the BCA if testing was carried out in accordance with this standard by a registered testing laboratory it would be regarded as third party certification.

The Department of Planning and Environment issued a Circular BS 15-001 on 3 August 2017 (External walls and cladding). This Circular was issued to raise awareness and provide advice to councils, certifiers, builders, architects, building designers, industry practitioners and other stakeholders regarding matters that need to be considered when assessing the suitability of external wall systems and attachments to external walls, including aluminium composite wall panels.

The Australian Building Codes Board (ABCB) released a Regulation Impact Statement (RIS) for consultation dated August 2016. The Document is in relation to Non- Compliant use of External Cladding Products on Buildings, which recommends some changes to the BCA.

### **Evidence of external cladding**

There is very little information available regarding the type of external cladding products that have been used on high rise buildings of Class 2 to 9 and Type A and B construction in New South Wales or across Australia.

There is no collected data that shows the number of relevant products, the extent and nature of testing of these products and to what extent these products are being used in a non-compliant manner.

### **Ensuring Compliance**

Practitioners, including building certifiers, both Council and Private, need to be satisfied that suitable evidence is provided to demonstrate that the products proposed for use in the construction of external walls comply with the relevant requirements of the BCA.

The forms of evidence which may be relied upon to demonstrate compliance with the BCA are contained in Part A2.2 of the BCA.

Where consideration needs to be given to the fire performance of a product, it is considered that the most suitable forms of evidence would be a report issued by a Registered Testing Authority, or a Code Mark Certificate of Conformity.

### **Undertaking an audit of buildings within the Newcastle Local Government Area**

Council may not have accurate and extensive records identifying the number or location of buildings which are constructed with potentially combustible external cladding.

A starting point would be identifying all buildings of Class 2 to 9 and Type A and B construction and then determine whether any of these buildings had external cladding installed.

Such an audit would be resource intensive and it is likely that an external consultant would be employed in order to ensure that the fire safety inspection program, fire safety statement program and stand alone fire safety investigations were not adversely impacted.

### **Can more rigid controls be applied by Council**

All buildings undergoing construction or redevelopment must meet the deemed-to-satisfy provisions or an alternative solution which meets the performance requirements of the BCA. This is the minimum and accepted requirements within NSW.

### **Communication with State Government**

Council is currently preparing a letter for the Minister for Planning, The Hon. Anthony Roberts MP, regarding the recommendations made by the ABCB in respect of the BCA, as well as querying if the State Government has further advice as to how the issues regarding external wall cladding might be better managed by local government.

### **RECOMMENDATION**

Council receive and note the information in relation to permissible building cladding.