



**BUILDING
PRODUCTS
INNOVATION
COUNCIL**

**Submission to the Building Ministers Forum - Senior
Officers' Group (BMF-SOG)**

PERMANENT LABELLING SYSTEM FOR ACP PRODUCTS CONSULTATION

Prepared by:

Building Products Innovation Council

Rodger Hills - Executive Officer
PO BOX 440
CIVIC SQUARE ACT 2608
Phone – 0438 740 240
Email – eo@bpic.asn.au

July 2018

Contents

Contents 2

Introduction 3

Option 1 - High rise building external façade information plate..... 4

Option 2 - Permanently etched or stamped motif or permanent label..... 5

Option 3 - Covert data marking technologies..... 6

Option 4 - Maturation of current reviews and reforms 7

BPIC Preferred Approach 8

The Role of BPIC..... 9

Introduction

The Building Products Innovation Council (BPIC) has been invited by the Building Ministers Forum - Senior Officers' Group (BMF-SOG) to comment on its *Permanent Labelling System for ACP Products* discussion paper. The discussion paper outlines four proposed options regarding a permanent labelling system for ACP (Aluminium Composite Panel) products to prevent the use of non-compliant building product substitution and lists desirable aims that might ensue from such labelling.

BPIC agrees with the need to make buildings safer and for building products to be able to be used with confidence. However if the stated aim of a labelling scheme is to prevent product substitution, then BPIC is doubtful that any of the options proposed will achieve such an outcome. This is because labelling schemes on their own are neither deterrents for product substitution nor a means of encouraging acceptable practitioner behaviour change.

Furthermore as Dame Judith Hackitt has pointed out in her recent report (*Building a Safer Future - Independent Review of Building Regulations and Fire Safety: Final Report, 2018*) into the regulatory failures leading to the Grenfell tower fire, there are inherent weaknesses in many current certification schemes upon which product labelling relies and these include:

- Products can fail tests several times and pass just once, but the record of previous failures is not publicly available. Nor is there a requirement to continue testing to ensure that the product integrity has been maintained during future manufacture.
- Manufacturers need to ensure that the limitations of a product and how it can and cannot be used in systems are declared, and that the limitation advice is adhered to. This will ensure that there is significantly reduced scope for substitution of any products or materials used as part of a system without further full testing.
- Manufacturers should retest products that at least every three years. Manufacturers should consider the need to test more frequently, focusing especially on the testing of products as they operate in systems rather than individual elements.
- Challenges arise in the identification of materials and products once delivered to a construction site and when incorporated into built works. When packaging is removed, some materials and products become unidentifiable or untraceable to specific manufactured batches. This can make it difficult to ensure that the right materials and products are being used in the correct applications, and can also make product recall challenging.
- There is a need to trace all construction products used in buildings in the same manner that products used in car manufacturing can be traced, for example through more consistent

batch numbering across the manufacture of construction products, will enable a more effective product recall and building defects rectification system.

BPIC is also concerned that the current government focus is on labelling of ACP panels only, whereas any solution used for ACPs should also deal with the variety of other products in buildings. At the very least builders, contractors and installers should be able to demonstrate compliance to building surveyors and building owners by retaining proof of purchase. The new Queensland Non-Conforming Building Product Chain of Responsibility legislation, where there is a responsibility to ensure that the right products are used in the right place and in the right way, is a significant step in the right direction and is fully supported by the building products industry.

Hackitt et al. (2018) goes further and recommends to the UK government that digital capture and storage of Declarations of Performances and digital identification of products on a building-by-building basis, would enable validated handover of information at completion of the construction phase. It would also ensure that a digital record of each product could be captured, stored and checked by the building owner whenever needed throughout the life cycle of any given building, and in the event of a fire, information about the products and systems used in the building would be readily accessible to share with the fire and rescue authorities.

In summary BPIC believes that a wider conversation between government and industry needs to take place to develop and agree a consistent labelling and traceability system, making use of the digital technologies that are already available and learning from other sectors, and ensuring that performance claims for products and systems incorporated within buildings be maintained throughout the life cycle of those buildings. This will require not only the design of a robust system, but the adequate enforcement of it.

Option 1 - High rise building external façade information plate

BPIC RESPONSE:

Buildings are complex systems with multiple safety and performance requirements. A name plate for cladding addresses one issue of safety failings – spread of flame up the outside of the building. It doesn't address structural integrity, other requirements for fire safety, water proofing, electrical integrity and countless other requirements. The examples of other product labelling schemes given in the discussion paper are somewhat one dimensional. Recreational boats are in general less complex and the main risk is going to be that they sink. Gas appliances

have asphyxia and fire risks. An information plate might be useful, but it would only deal with one aspect of the building (ACPs).

Nameplates also only capture the reality of a situation at a particular point in time. As buildings get used, repaired, upgraded, etc, the validity of such information rapidly diminishes. Furthermore the information on a nameplate or related to the nameplate, would be inaccessible to modern digital technologies that can update and keep current all information related to a building.

Option 2 - Permanently etched or stamped motif or permanent label

BPIC RESPONSE:

Etching or stamping of an architectural product created specifically to be viewed as a building feature would not seem to be a robust idea, especially if such permanent labelling impinges on the attractiveness of the product. If the labelling is placed only on one side (e.g. the rear of a panel), traceability will only be possible up to the point of installation, after which, the label will not be visible.

Another complication is the end use to which the product is put. Since ACPs have multiple uses other than in buildings, labelling specifically for building use could impose a significant and unnecessary cost on manufacturers.

If a label for ACPs attests to the panel's flammability or otherwise, what about its performance as a weatherproofing membrane, or its resistance to marine environments or cyclonic winds? Should these other critical performance considerations not also be captured? If a panel were to be marked as meeting an Australian Standard nominated for ACPs this would be only a part of the requirements it needs to meet under the National Construction Code (NCC). For example the NCC Verification Method that references AS 5113 contains a number of additional requirements beyond just AS 5113 compliance. A label in this regard would be unlikely to include this type of detail.

Generally a label or a mark that only focuses on one aspect of compliance and therefore may be misleading in terms of compliance with all aspects of the NCC. Indeed, Hackitt et al. (2018) in her report noted, "*...confusion over product labelling as a contributory factor to fire safety systems being compromised.*"

There are also practitioner behavioural aspects to product labelling. A product label, mark or a stamp on a product stating it meets a particular Australian Standard can be problematic. This is because practitioners may look for the mark or the label and assume automatic compliance under all conditions of use, rather than refer to the product compliance documentation which will contain the detailed information of where and when a product can or can't be used.

An ACP's compliant use as cladding may depend on the application to which it is being used and the manner in which it has been tested or certified. This is particularly relevant with façade assembly systems where the cladding panel is only one element of the whole wall system. The testing or certification of the system may require specific fixing requirements, only be suitable for specific wall systems, etc. A label would not be likely to be able to contain the necessary information without it taking up a significant portion of the panel itself.

The choice of labelling/certification technology used would also need careful consideration as there are distinct advantages and disadvantages to inkjet printing, QR codes, RFID tags, nano particles or bar codes. Some of these technologies are used extensively to track the supply and delivery of products, but impose significant ongoing licensing costs on manufacturers as well as imposing proprietary and costly scanning processes on end-users and everyone in the supply chain. Others are less costly to use and scan but do not integrate well into digital engineering or digital repository systems.

Option 3 - Covert data marking technologies

BPIC RESPONSE:

Covert data marking would be subject to all the limitations detailed in the previous section related to permanently etched or stamped motif or permanent label, with the exception of the visual impact of the label. While covert marking options would overcome the issue of impingement on the visual attractiveness of ACPs, these high-tech labelling technologies carry the additional risk of being and copied and/or forged. Since the technology required to scan and decipher them is very specialised it is unlikely that regulators, building owners and emergency services personnel would be able:

- Differentiate between a legitimate and forged label.
- Afford the specialised scanning equipment required to read the label.
- Locate the label quickly or easily in an emergency (e.g. a fire) on the large surface area of the panel.

- Use the scanning equipment in thick smoke or water run-off down a facade during a fire or locate the label under any accumulation of dirt on the surface of the panel.

Option 4 - Maturation of current reviews and reforms

BPIC RESPONSE:

BPIC is not confident that current reviews and reforms will lead to a harmonised and national approach to the issue of product traceability and conformity. We base this assessment on the way each jurisdiction has recently handled the issue of combustible cladding. Stemming from a common Building Ministers Forum agreement to tackle combustible cladding, each jurisdiction has approached the problem differently, using differing legislative and regulatory measures. Furthermore without the political will and government resource dedicated to enforcement, no product labelling scheme is likely to be successful.

While BPIC is very supportive of the Queensland Non-Conforming Building Product Chain of Responsibility legislation, no other jurisdiction has yet adopted such requirements. One jurisdiction in particular (NSW) had the opportunity and full support from industry to enact similar legislation, but chose instead to strip the proposed bill of all product recall and chain of responsibility provisions.

That being said, of the options proposed, Option 4 is the most likely to be effective in addressing issues associated with the non-compliant use of cladding and product substitution issues more broadly. Through the reforms being progressed by BMF through the Experts report and for the ABCB and SOG to address the compliant use of products and non-conforming building products, the measures either already implemented or under consideration are likely to address many of issues identified through the cladding audits and highlighted in the discussion paper, and these include:

- Improved CodeMark certification scheme including the new CodeMark Certificate of Conformity.
- Introduction and encouraging the use of Product Technical Statements (PTSs).
- The recently published NCC Evidence of Suitability Handbook.
- Queensland non-conforming building product legislation.
- Designated High Risk Product (SA)

In terms of issues associated with knowing what products have been used on a building and product substitution, it is considered that the proposed recommendation from the Experts review regarding improved detailing on building plans and specifications (recommendation 13) and for a building manual to be prepared for commercial buildings (recommendation 20) would assist in addressing these issues and warrant further consideration. The argument in favour of developing a digital repository of products and specifications (building manual) for individual buildings is also made by Hackitt et al. (2018) in her report (Section 7.29) to the UK parliament. All in all, the reforms currently progressing acknowledge that there isn't a single solution to address the compliant use of building products and product substitution.

BPIC Preferred Approach

BPIC notes that the issue of labelling ACPs was also previously investigated by the Australian Building Coded Board in 2016 and was included in a Regulatory Impact Statement proposed as part of the public exhibition amendments to the 2017 amendment to NCC Volume One. The proposal was for cladding to either have a permanent label on each panel or on the packaging for the panel. The proposal didn't proceed due to numerous comments received on the draft questioning the practical application of labelling of panels and associated costs and benefits.

Therefore BPIC suggests that a more holistic approach is required, which includes improvements to product compliance documentation requirements and greater awareness of the need to ensure the products are used in accordance with the documentary evidence.

We believe that a wider conversation between government and industry needs to take place to ensure that whatever solution is used for ACPs also deals with all the other products used in buildings. The aftermath of the Lacrosse and Grenfell fires has also highlighted the need for robust building product conformity and traceability processes.

Hand-in-hand with the development of these processes should be the creation of a standard/design for electronic building repositories that can capture and store digital product data for every building and allow that data to be securely accessed over the lifetime of the structure, during regulatory inspections and during emergencies.

The Role of BPIC

The Building Products Innovation Council (BPIC) is a national peak body representing Australia's leading building products industries and related services (listed in the footer of this document) in:

Steel	Gypsum Board	Concrete	
Insulation	Timber Products	Roof Tiles	Glass
Windows	Clay Bricks	Concrete Masonry	
Cement	Housing Industry	Insulated Sandwich Panels	

BPIC's members and associated companies directly employ over 200,000 Australians with more than 470,000 employed indirectly. Their collective industries are worth over \$54B in annual production to the Australian economy. BPIC is a not for profit organisation governed by a Board of Directors comprised of representatives from its member organisations.

BPIC's primary objective is to provide coordinated representation of the building products industry to interested parties including Government, the construction industry, and the general public to help improve building and construction standards. We also provide a forum for discussion, information sharing and policy formulation among major product categories in the building industry. BPIC's mission is to:

- Promote the efficient production and use of building products within a nationally consistent regulatory environment.
- Develop policy and make submissions or representations to governments, industry and the community on agreed technical standards, codes and regulatory issues of mutual concern to Members.
- Promote the innovative use of building products.

BPIC works to fulfill these aims by gathering and supplying practical and current industry information on behalf of BPIC member organisations and other organisations and companies that are not members but follow BPIC through various means. This industry-wide approach to responding to regulatory issues, helps to ensure that Governments are informed of possible problems in the building industry and are provided with appropriate industry-considered responses. BPIC also encourages investment in skills formation, product development and industry research by helping to identify and remove regulatory impediments to innovation.