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## BCA 2019 Clause of the Year

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**Abstract:** Building Code of Australia 2019 (BCA) Clause C1.9 put an end to the use of combustible materials on building facades in an explicit fashion. Although this has been an implicit requirement since BCA 1996 or earlier. Recent cladding incidents such as the Grenfell Fire and the Lacrosse Fire have necessitated further clarification and a dedicated clause BCA C1.9. Clause C1.9 has generated considerable controversy and discussion due to its application retrospectively to existing buildings and current projects in construction.

**Full Article:**

BCA Clause C1.9

Building Code of Australia (BCA) 2016 Amendment 1, which was adopted on 12 March 2018 introduced Clause C1.9 which clarified the requirement for non-combustible external walls in Type A and Type B construction buildings.

The NSW Cladding Ban <https://www.fairtrading.nsw.gov.au/trades-and-businesses/construction-and-trade-essentials/building-products/aluminium-composite-panel-ban><sup>1</sup> came into effect on 15 August 2018. Aluminium Composite Panels (ACP) with a core comprised of more than 30% PE (Polyethylene) by mass was banned for use in any external cladding, external wall, external insulation, facade or rendered finish in buildings.

BCA 2019 Clause C1.9 put an end to the use of combustible materials on building facades in an explicit fashion. Although this has been an implicit requirement since BCA since before 1996 or earlier. Recent cladding incidents such as the Grenfell Fire and the Lacrosse Fire have necessitated further clarification and a dedicated clause BCA C1.9.

Clause C1.9 has generated considerable controversy and discussion due to its application retrospectively to existing buildings and current projects in construction. Hence, it's Lote's nomination for the BCA Clause of Year for 2019.

The extract below from BCA 1996 Amendment 13, Specification C1.1 Clause 3, states that in a Building of Type A construction external walls, common walls and the flooring and floor framing of lift pits must be non-combustible.

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<sup>1</sup><https://www.fairtrading.nsw.gov.au/trades-and-businesses/construction-and-trade-essentials/building-products/aluminium-composite-panel-ban>

Clause 3.1  
amended by  
Amdt No. 12

### 3. TYPE A FIRE-RESISTING CONSTRUCTION

#### 3.1 Fire-resistance of building elements

In a building *required* to be of Type A construction-

- (a) each building element listed in Table 3 and any beam or column incorporated in it, must have an FRL not less than that listed in the Table for the particular Class of building concerned; and
- (b) *external walls, common walls and the flooring and floor framing of lift pits must be non-combustible; and*
- (c) any *internal wall required* to have an FRL with respect to *integrity and insulation* must extend to-
  - (i) the underside of the floor next above; or

Amdt 13

Figure 3 - Extract showing BCA 1996 Amendment 13, Specification C1.1 Clause 3

In comparison under BCA 2019 C1.9, all components of the external wall including the framing, insulation and façade covering must also be non-combustible as shown by the clause extract below. Furthermore, Clause C1.12 has been deleted from BCA 2016 Amendment 1 and now forms part of Clause C1.9. This provides a concession on some materials and products allowing them to be used where non-combustible material is required. It is to be noted that some of the concessions are not applicable in Queensland.

BCA 2019 has also introduced a new Clause C1.14 to cover ancillary elements fixed, installed or attached to the internal parts or external face of an external wall that is required to be non-combustible as shown by the extract below in Figure 3

### C1.9 Non-combustible building elements

- (a) In a building *required* to be of Type A or B construction, the following building elements and their components must be *non-combustible*:
- (i) *External walls* and *common walls*, including all components incorporated in them including the facade covering, framing and insulation.
  - (ii) The flooring and floor framing of lift pits.
  - (iii) *Non-loadbearing internal walls* where they are *required* to be *fire-resisting*.
- (b) A *shaft*, being a lift, ventilating, pipe, garbage, or similar *shaft* that is not for the discharge of hot products of combustion, that is *non-loadbearing*, must be of *non-combustible* construction in—
- (i) a building *required* to be of Type A construction; and
  - (ii) a building *required* to be of Type B construction, subject to C2.10, in—
    - (A) a Class 2, 3 or 9 building; and
    - (B) a Class 5, 6, 7 or 8 building if the *shaft* connects more than 2 *storeys*.
- (c) A *loadbearing internal wall* and a *loadbearing fire wall*, including those that are part of a *loadbearing shaft*, must comply with Specification C1.1.
- (d) The requirements of (a) and (b) do not apply to the following:
- (i) Gaskets.
  - (ii) Caulking.
  - (iii) Sealants.
  - (iv) Termite management systems.
  - (v) Glass, including laminated glass.
  - (vi) Thermal breaks associated with glazing systems.
  - (vii) Damp-proof courses.
- (e) The following materials may be used wherever a *non-combustible* material is *required*:
- (i) Plasterboard.
  - (ii) Perforated gypsum lath with a normal paper finish.
  - (iii) Fibrous-plaster sheet.
  - (iv) Fibre-reinforced cement sheeting.
  - (v) Pre-finished metal sheeting having a *combustible* surface finish not exceeding 1 mm thickness and where the *Spread-of-Flame Index* of the product is not greater than 0.
  - (vi) *Sarking-type materials* that do not exceed 1 mm in thickness and have a *Flammability Index* not greater than 5.
  - (vii) Bonded laminated materials where—
    - (A) each lamina, including any core, is *non-combustible*; and
    - (B) each adhesive layer does not exceed 1 mm in thickness and the total thickness of the adhesive layers does not exceed 2 mm; and
- (C) the *Spread-of-Flame Index* and the *Smoke-Developed Index* of the bonded laminated material as a whole do not exceed 0 and 3 respectively.

Figure 2 - Extract showing BCA 2019 Clause C1.9

### C1.14 Ancillary elements

An *ancillary element* must not be fixed, installed or attached to the internal parts or external face of an *external wall* that is *required* to be *non-combustible* unless it is one of the following:

- (a) An *ancillary element* that is *non-combustible*.
- (b) A gutter, downpipe or other plumbing fixture or fitting.
- (c) A flashing.
- (d) A grate or grille not more than 2 m<sup>2</sup> in area associated with a building service.
- (e) An electrical switch, socket-outlet, cover plate or the like.
- (f) A light fitting.
- (g) A *required* sign.

Figure 3 - Extract showing BCA 2019 Clause C1.14

- (h) A sign other than one provided under (a) or (g) that—
  - (i) achieves a *group number* of 1 or 2; and
  - (ii) does not extend beyond one *storey*; and
  - (iii) does not extend beyond one *fire compartment*; and
  - (iv) is separated vertically from other signs permitted under (h) by at least 2 *storeys*.
- (i) An awning, sunshade, canopy, blind or shading hood other than one provided under (a) that—
  - (i) meets the relevant requirements of *Table 4 of Specification C1.10* as for an internal element; and
  - (ii) serves a *storey*—
    - (A) at ground level; or
    - (B) immediately above a *storey* at ground level; and
  - (iii) does not serve an *exit*, where it would render the *exits* unusable in a fire.
- (j) A part of a security, intercom or announcement system.
- (k) Wiring.
- (l) A paint, lacquer or a similar finish.
- (m) A gasket, caulking, sealant or adhesive directly associated with (a) to (k).

*SA C1.15*