

Summary Document
1.0

Combustible cladding ban:
The answers you need to;
when, what, why and how it
effects balcony design?

Combustible cladding ban: The answers you need.

What is the 'Cladding ban'?

The ban means that cladding and balconies on buildings over 18m high will have to be fire resistant, achieving class than A2-s1, d0 or Class A1 (under the European classification system set out in the standard BS EN 13501-1) subject to exemptions. Up until now regulations have allowed cladding to Class B and balconies were not regulated unless they formed part of an escape route.

Does the Cladding ban include balconies?

Yes balconies on buildings taller than 18m are specifically included (read on for full details).

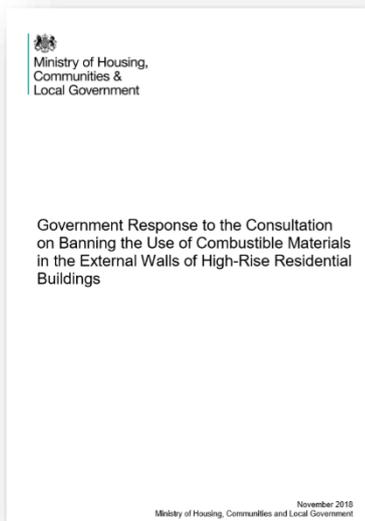
When does it start?

The ban is effective from 21st December 2018, however it does not apply to buildings retrospectively and also does not apply to buildings where full plans are in AND work is started by 21st February 2019.

How has it come about?

1. The Hackett Review: Following the Dame Hackett review of Grenfell, it was identified that that a simpler but more robust approach to the construction and on-going management of high-rise residential buildings was needed. In her [final report](#) Dame Judith Hackitt stated that using products which are non-combustible (Class A) or of limited combustibility (Class B or C) is undoubtedly the lower risk option than undergoing a full system test. Whether a cladding system met class B or was in fact a class C (As Grenfell cladding transpired), lacked clarity and one of the easier ways of avoiding this reliance on testing was to ban all combustible cladding whether it was Class B or C.
2. The cladding consultation: the government issued a cladding consultation to determine the effects of a ban on combustible cladding. This public consultation happened during June, July and August 2018 and consulted on whether current exemptions (e.g. gaskets and sealants etc.) should remain that way, and also whether items like balconies, canopies, sun shading etc. should be added, and if so to what extent. The consultation results are publicly available here: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/760302/Government_response_to_banning_combustible_materials.pdf
3. Ban announcement: Secretary of state for Housing, Communities and Local Government, MP James Brokenshire announced at the Conservative Party Conference on 1st October 2018, there would be a cladding ban. In his speech he spoke of the shock of the "unimaginable horror" of the Grenfell Tower fire has "underlined the need to do all that we can to see that such a disaster cannot happen again." It was announced that the ban will cover all combustible material being used to clad new residential buildings, schools, hospitals, care homes, and student accommodation in England and Wales. The speech clarified that the ban would not include cladding on existing buildings, although lacked clarity around the current regulation exemptions which had been consulted on.
4. Clarity around the ban: On 29th November 2018 MP James Brokenshire announced in his Grenfell Update speech that "Today regulations have been laid to give legal effect to the ban."

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This was in reference to the ministry of housing, communities and local government issuing the “Ban on combustible materials in external wall systems. Building (Amendment) Regulations 2018 SI 2018/1230”.

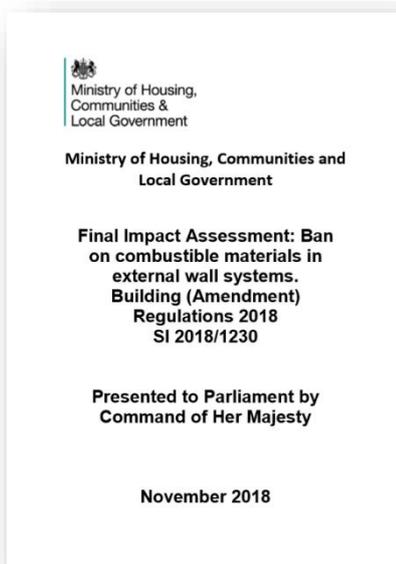
Clarity was made in this document that:

a. The ban will limit materials to products achieving a European Classification of Class A1 or A2-s1,d0 when tested in accordance with BS EN 13501-1 :2007+A1:2009 which is in line with many other EU member states.

b. Section 75 specifically mentioned the inclusion of balconies within this ban. This states that “We consulted on including significant attachments such as balconies, photovoltaic panels, green walls and brise soleil in the ban. Consultation responses supported this, and we are proceeding on that basis”.

What's the impact likely to be?

The government have issued an impact assessment, this analysis which is publicly available here: (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/760536/Ban_on_combustible_materials_in_external_wall_systems_impact_assessment.pdf) compares the ban against a ‘Do nothing’ option of no change to the Building regulations. The analysis concludes that there will be a one-off transition cost as the industry familiarises itself with the changes of £0.5m. The equivalent annual direct cost to developers and owners is estimated to be £24.9m-£33.7m (central £29.3m).



This final impact assessment document assumes that balconies are typically constructed using timber decking and joists, which are non-A classified materials. It suggests that typically in the industry 90% of galvanised steel balconies use non-A classified materials, while for concrete balconies this number is 40%. It estimates around 55%-60% of UK residential buildings have balconies.

Section 1.18 of this document concludes that in terms of balconies, the impact per building will depend on the types of balcony installed and the number per building.

On the assumption of three types of balcony that have been included, the split of balcony types would be something roughly like; recessed galvanised steel (40%), projected galvanised steel (40%) and recessed concrete (20%).

This document suggests that the additional cost per balcony ranges from £250-£750, as timber decking and joists are replaced. The annex sets out a full break down of costs per balcony by building type.

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Because not all flats in a building have balconies, the cost per building will depend on the size of that building. See below for the cost difference of having A2s1, d0 or A1 rated materials in balconies compared to the counterfactual, including on-costs. Recessed Galvanised steel is the most expensive type. The cost per building is estimated by the government based on the increased cost shown in the following table:

Balcony type	low cost increase	mid cost increase	high costs increase
Recessed Galvanised Steel	£425/balcony	£587/balcony	£750/balcony
Projected Galvanised Steel	£400/balcony	£575/balcony	£750/balcony
Recessed Concrete	£250/balcony	£250/balcony	£250/balcony

Does the government estimate accurately reflect the cost impact on Sapphire Balconies?

The good news is that as Sapphire have been very proactive in highlighting the fire issue on balconies and have long designed out the use of timber structures and decking. Sapphire Cassette® balconies have used Class A support arms, frames, rafters, soffits and fascias anyway so therefore the impact to cost for Sapphire balconies is typically going to be less around at the low cost estimates of the above table.

What are the exemptions

Product	Definition of product
Membranes	Membranes is a common term used in the industry and does not need any specific definition
Roofing materials	Components of a roof that extends to the junction of the external wall
Internal decorative wall finish	Internal wall finish - inner most surfaces directly exposed to the interior of the building on the external wall
Windows	Windows made out of glass and transparent and associated window frame including glazing, features, fixings and ironmongery. (Sapphire are writing to the government for clarity on balustrade glass and the interlayers used in these scenarios)
Doors	Doors and door sets located on the external wall including associated frames and ironmongery.
Thermal breaks	Thermal breaks where they are necessary to prevent thermal bridging and meet the requirements of Schedule 1 Paragraph L.
Cavity trays	Cavity trays as part of a masonry wall systems including two leaves of masonry construction
Seal, fixings, gaskets, sealants and backer rod.	Seal, fixings, gaskets, sealants and backer rod
Electrical installations	All electrical installations as defined in the Building Regulation already.
Fire stopping and Intumescent Materials	Fire stopping and intumescent materials where they are necessary to meet the requirements of paragraph B of Schedule 1
Insulation used under ground	Insulation used where it is located underground

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Frequently asked questions (cladding ban FAQ's)

1. Does this regulation apply to the interlayer in laminated glass
 - a. Balustrades are not specifically mentioned. However our understanding is that the glass and interlayers of glass balustrades is exempt. Sapphire are writing to the government requesting written clarification of this point.
 - b. Exclusions include 'window frames and GLASS' and 12.14d confirms this includes laminated glass.
2. Does this apply to decking on a terrace on buildings over 18m
 - a. The primary legislation states 'the roof of the building shall...resist the spread of fire...'
 - b. The new regulations relate specifically to walls and attachments thereto.
 - c. It would be prudent to consider the advantages of class A2 decking in these situations.
3. Can I still have lights in the decking or soffit, or attach products like PV panels to the balcony?
 - a. There is a specific exemption for electrical equipment, so this would allow for lights in soffit or decking.
4. Does the Sapphire thermal break comply with the new regulations
 - a. Yes they do. The requirements of maintaining a fire barrier at this junction is important.
5. Will this apply to my current projects;
 - a. Whilst the ban starts on 21/12/2018, it does not apply retrospectively and not if full plans are in AND work is started by 21/02/2019. We would recommend being an early adopter anyway.
6. How does the 18m Rule apply?
 - a. If the building is over 18m the whole façade and balconies need to be of a minimum of Class A2-s1,d0 (not just the parts of the building which are over 18m)
 - b. Buildings under 18m in height are able to use materials which aren't class A. That said, we would recommend that it is prudent to consider class A anyway and we would strongly advise a minimum of a class B decking with a Class A soffit.

Want to know more?

We recommend that you read the Sapphire Fire White Paper: Recommendations regarding fire safety on balconies in high rise residential blocks. This can be obtained via: www.sapphire.eu.com/fire

We also present our Fire CPD to architects, developers, and contractors, etc. If you would like to find out about attending one or arranging one at your offices visit <https://sapphire.eu.com/resources/balcony-fire-cpd/>