

BRIEFING FOR THE LOCAL GOVERNMENT AND COMMUNITIES COMMITTEE: Building Regulations and fire safety: one-off evidence session with focus on new homes and owner-occupiers (20 November 2019)

Despite areas of strength and leadership within the Scottish Building Regulations, Scotland has become an outlier in the UK on one very significant point – there is no ban on the use of combustible cladding and insulation on high-rise and high-risk buildings.

This briefing provides details of how combustible materials are permitted onto buildings in Scotland and raises serious public safety concerns about the failure to ban these materials.

Section 1: Do current building standards requirements for cladding/insulation systems ensure that the risk of fire spread in new homes is minimised?

1. Is there a ban on combustible materials on high-rise and high-risk buildings in Scotland?

NO. Scottish building regulations and guidance do not ban combustible materials on the outside of high-rise or high-risk buildings.

The Technical Handbook states insulation and cladding products (together known as the façade system) on the outside of buildings should **either** be:

1. Non-combustible (Euroclass A1 or A2)
OR
2. (If the system incorporates combustible materials) The façade system should undergo a BS 8414 test

Conversely, England introduced a ban on combustible materials in December 2018 (having previously allowed the above alternative route, as per the Scottish regulations); Wales committed to introducing a ban in the summer of 2019; and several other European countries already have a parallel ban, including Germany and France.

2. What are the routes to compliance for combustible materials?

The BS 8414 alternative testing route

The BS 8414 test involves a fire being lit under a plain 8-9m tall section of a façade system. It fails systems that exceed temperature parameters during the first 15 minutes and/or where flames reach over the top of the rig within 30 minutes. The test may be repeated unlimited times.

Desktop studies

The BS 8414 test also provides the basis for desktop studies. Desktop studies, otherwise known as an “assessment in lieu of test”, involve companies paying consultants to provide an *opinion* on whether a façade system would pass a BS 8414 test based on the result for another systems. Through this route, combustible cladding can be approved for use without even being tested.



a) Does the BS test show that a system doesn't burn?

NO: The failure criteria are not based on whether the system burns or not. On the contrary, the test is only needed for façade systems that incorporate combustible cladding and/or insulation. In all of the UK Government-sponsored BS 8414 tests involving combustible materials, the reports show that those materials have burned (including when a ‘pass’ is achieved).

b) Is the test specific to each building?

NO: The BS 8414 test is a generic plain wall which does not reflect either the design details of specific buildings or features commonly found on buildings such as windows or ventilation grills – many of which include combustible materials which further add to the fire load in a real-life scenario.

c) Is the test wall installed as it would be on a building?

NO: The test reports themselves, including the critical design details, are not published meaning installers do not have access to this information. The façade in the test is also carefully installed over a period of several days – much longer than installers have in real life.

The manufacturers who pay for the tests can also control key details such as the number of fire barriers and where these are placed. In the UK Government-sponsored tests in 2017, twice as many fire barriers were used as is typical on buildings, and barriers were installed directly under the temperature reading devices.

d) Is it a test that reflects real life?

NO: Dr Barbara Lane, an Expert Witness to the Grenfell Inquiry, has said:

“I don’t take anything from those tests because I don’t consider them to be relevant because they are so far away from the kind of construction detailing that people like me have to deal with in our profession.”

Mark Norris from the Local Government Association has said in evidence to the Housing, Communities and Local Government Committee in Westminster:

“[the BS 8414] does not replicate what happens in a real fire in a real building.”



The Association of British Insurers (ABI) commissioned the Fire Protection Association (FPA) to carry out a series of carefully controlled experiments, recreating more realistic building conditions than those in which the standard tests are done, in an effort to measure what differences these factors could make in the event of a fire. Their [findings](#) prompted an ongoing review of BS 8414.

The ABI has stated: *“We must see a total ban on combustible materials being used on the outside of buildings. Without a ban, insurers, residents and landlords will struggle to have confidence in the regulations in place.”*

e) What do experts say about desktop studies?

They should be banned. Desktop studies for façades are based on the heavily criticised BS 8414 test and involve approving combustible cladding systems without even testing them. The Royal Institute of British Architects (RIBA) are amongst a number of organisations calling for a ban on desktop studies: *“Desktop studies have been a significant contributing factor in the regulatory failure revealed by the retrospective cladding testing programme introduced after the Grenfell Tower fire.”*

Despite not being officially written into the Technical Handbook and the Scottish Government stating they have ‘never been recognised in Scotland’, they continue to be seen in Scotland as a valid route to compliance. This was confirmed by the Chair of the Review Panel on Building Standards (Fire Safety) in Scotland Dr Paul Stollard during a Local Government and Communities Committee meeting on 5 September 2018 stating: *“on the extrapolation of desktop exercises in Scotland, verifiers are allowed to choose to depart from basic guidance and to accept variations”*

f) What do the experts recommend?

A ban on combustible materials for the façades of high-rise and high-risk buildings is supported by a wide range of experts including the RIBA, the ABI, the LGA, the All-Party Parliamentary Fire Safety Group and the Housing, Communities and Local Government Select Committee in Westminster, Grenfell United and many more.

These views are also shared by many other Scottish organisations, including NHS Tayside, NHS Lothian, The Royal Institution of Chartered Surveyors in Scotland and The City of Edinburgh Council. Each of these organisations responded to the Scottish Government’s Building Standards Compliance and Fire Safety Compliance to support proposals, which recommended the use of non-combustible A1/A2 materials only.

Section 2: How could a regime for the inspection, possible remediation and assurance of buildings clad in ACM, or other potentially flammable material, can be developed, funded and delivered? What immediate action can be taken by banks, insurers, developers and building industry professionals to allow the residents of buildings clad in ACM, or other potentially flammable material, to insure, buy and sell such properties as normal?

Unfortunately the focus on ACM post-Grenfell has frequently resulted in other combustible materials – both insulation and cladding – not being investigated, despite many types of these combustible materials being widely used in Scotland.

To address this, we have called for a full audit of all high-rise and high-rise buildings and for the removal of any combustible insulation and cladding found (Euroclass B and below).

ROCKWOOL strongly believes that people have a right to expect that the buildings they live, work and study in are safe. As such, we recommend that only non-combustible materials should be allowed on the façades of high-rise and high-risk buildings, including schools, universities and hospitals – with no exceptions and no alternative routes to compliance.

Section 3: Views on actions taken to date by the Scottish Government on improving fire safety in domestic properties, particularly modern high rise buildings

We welcome many of the steps taken by the Scottish Government following the recent review of building standards and fire safety. However, we strongly believe the measures taken do not go far enough and we recommend the following urgent steps:

- 1) **A ban on combustible materials:** Despite the recent changes to Technical Handbook, combustible cladding and insulation has not been banned. This should urgently change – only non-combustible materials (Euroclass A1 and A2) should be allowed on the façades of high-rise and high-risk buildings, including schools, hospitals, care homes – with no exceptions. This requirement should be enshrined in legislation.
- 2) **An audit of existing buildings:** The Scottish Government should urgently complete its audit of building stock in Scotland to identify all combustible facade materials - insulation and cladding - on buildings. There are many types of combustible façade materials in common use beyond ACM, all of which must be identified.
- 3) **The removal of combustible materials:** Following the audit, any combustible insulation and cladding found (Euroclass B and below) should be removed.