Briefing for the Local Government and Communities Committee on building regulations and fire safety in Scotland

Following the 20 November Local Government and Communities Committee evidence session on building regulations and fire safety, this briefing provides additional information from ROCKWOOL ahead of the Committee’s follow up session on 22 January.

Combustible bans in England and Wales
As the panel highlighted during the session, unfortunately, Scottish Building Regulations still do not ban the use of combustible materials on the outside of high-rise or high-risk buildings. Indeed, Scotland is now an outlier in the UK, following bans on the use of combustible materials on high-rise residential buildings, student accommodation, care homes and hospitals introduced in England in December 2018 and in Wales in January 2020.

The Minister for Local Government, Housing and Planning recently referenced comments from Professor Jose Torero that such a ban would be unrealistic. However, many countries throughout Europe, including England, Wales, France and Germany, have shown through such bans that this is not the case.

Further, when Professor Jose Torero noted during the 20 November session that he believed a ban on all combustible materials was “unrealistic”, citing that double glazing “will have combustible materials between the layers”, he was referring to one of many elements of the building envelope that have been comprehensively assessed by the government in England to ensure that its ban is both effective and practical (the ban in England does not apply to window frames and glass).

As such, bans elsewhere in the UK relate to the cladding and insulation used on the external façades of relevant buildings and follow phase one of the inquiry into the Grenfell Tower fire, which heard evidence that these materials were the main reason the fire spread so rapidly on the outside of the building.

Combustible materials in Scotland
Combustible insulation and cladding can still be used on high-rise and high-risk buildings in Scotland via a BS 8414 test.

This tests a generic plain wall surface, which does not reflect either the complex design details of specific buildings or features commonly found on buildings such as windows or ventilation grills. Many of these elements, as Professor Torero highlighted, may include combustible materials, which would further add to the fire load in a real-life scenario but are not accounted for in this test.

Professor Jose Torero also contributed evidence to the Grenfell Tower Inquiry in an expert report, criticising the BS 8414 alternative route noting:

"Tests such as BS 8414 provide a single scenario deemed consistent with an external fire, a very limited number of measurements and a very simple failure
criterion. The combination of these three characteristics does not provide a sufficiently comprehensive assessment of performance.

Many details can be hidden within the results of the test and therefore great caution needs to be exercised when interpreting such tests. In particular, it is essential to recognise the limitations of the failure criteria and the complexities associated to its extrapolation to real systems."

“The complexity of this façade system is such that observations and tests, such as BS 8414, do not provide sufficient information to be able to reach incontestable conclusions.”

BS 8414 has also been heavily criticised by many fire safety experts, including the Association of British Insurers (ABI), the Fire Protection Association (FPA) and the Royal Institute of Chartered Surveyors (RICS), as you will have heard from the evidence they gave. Our own review of the test standard supports these critiques and we fully support the comments of the FPA, RICS and the ABI on the need to ban combustible materials for the façades of high-rise and high-risk buildings to protect public safety. In our view, the FPA’s response at the end of the session summarised this best in saying “the world is imperfect”, which was supported by Professor Torero’s comments on competency in the built environment as regards fire safety.

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 Royal Institute of British Architects (RIBA), the Local Government Association (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.

FPA and ROCKWOOL joint demonstration – May 2013
We would also like to respond to the submission from the European Phenolic Foam Association, which highlighted a joint demonstration by the FPA and ROCKWOOL at the UK fire college at Moreton-in-March during May 2013. The European Phenolic Foam Association argued that the demonstration indicated there was no discernible difference between the surface spread of flame of stone-wool and phenolic foam insulation products. The link to the video they refer to is available here: https://www.youtube.com/watch?v=e06j3RNyaRc.

This demonstration was undertaken to highlight the ‘window of risk’ during installation, when combustible materials (particularly insulation) may be directly exposed to malicious or accidental fire attack before the full system is in place. This period of heightened vulnerability to fire is not considered when BS 8414-BR 135 approval is given to systems tested with all their components in place.
The demonstration undertaken by the FPA and ROCKWOOL was not a BS 8414 test and performance in accordance with BS 8414 cannot be inferred from it. Neither can it be inferred that the fire performance of combustible plastic insulation is somehow comparable with the performance of Arated non-combustible stone wool insulation. As we have stated, the demonstration was undertaken specifically to show how there may be an additional fire risk to a building during the construction phase, which is not assessed by testing complete systems to BS 8414.

As reports on the recent student accommodation in Bolton show, a fire can be started by something as simple as a dropped cigarette. The use of combustible insulation and cladding materials on highrise buildings, and the potential vulnerability of the buildings where these materials have been installed, has been widely reported, a fact which is a particular cause for concern in an atmosphere of heightened security.

**Recommendations**

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 change to regulations:** 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 and entertainment & assembly venues – 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 façade 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.