GOV.UK

1. Home (https://www.gov.uk/)
2. Government (https://www.gov.uk/government/all)
3. Emergency preparation, response and recovery (https://www.gov.uk/government/emergency-preparation-reponse-and-recovery)

Independent report

Fire test report: DCLG BS 8414 test no.1

The report of the result of the first large scale test which shows how Aluminium Composite Material (ACM) PE panels in combination with foam insulation behave in a fire.

Published 28 July 2017
Last updated 7 August 2017 — see all updates

From:
Ministry of Housing, Communities & Local Government
(https://www.gov.uk/government/organisations/ministry-of-housing-communities-and-local-government)

Applies to:
England

Documents

Fire test report: DCLG BS 8414 test no.1 (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/648789/DCLGtest1_BS_8414_Part_1_test_report_Issue1.2.pdf)

PDF, 3.12MB, 47 pages

If you use assistive technology (such as a screen reader) and need a version of this document in a more accessible format, please email alternativeformats@communities.gsi.gov.uk. Please tell us what format you need. It will help us if you say what assistive technology you use.

Details

This report is one of a series, commissioned by the Department for Communities and Local Government (DCLG) intended to establish how different types of Aluminium Composite Material (ACM) panels in combination with 2 different types of insulation behave in a fire.

Following the fire at Grenfell Tower in London on 14 June 2017, the government established an Independent Expert Advisory Panel (https://www.gov.uk/government/news/expert-panel-appointed-to-advise-on-immediate-safety-action-following-grenfell-fire) to advise on immediate measures that should be put in place

to help make buildings safe.

On 6 July the Independent Expert Advisory Panel recommended a series (https://www.gov.uk/government/news/expert-panel-recommends-further-tests-on-cladding-and-insulation) of large scale, BS 8414 (https://shop.bsigroup.com/ProductDetail/?pid=000000000030357123) tests be carried out in order to help building owners make decisions on any further measures that may need to be put in place.

This series of tests includes 6 combinations of cladding systems. The detailed design of each test specimen has been reviewed by the Expert Panel and other industry bodies to ensure that it is representative of the systems that are in common use including the way it is fixed.

The 6 tests incorporate each of the 3 common types of ACM panel, with core filler materials of unmodified polyethylene (PE), fire retardant polyethylene, and limited combustibility mineral.

The 2 insulation materials used in the testing are rigid polyisocyanurate foam or non-combustible mineral wool.

Test no.1 relates to a cladding system formed using ACM panels with an unmodified polyethylene core and a rigid polyisocyanurate foam.

The test result shows that this system failed to meet the criteria set out in building regulations guidance BR 135 (https://www.brebookshop.com/details.jsp?id=327137).

Published 28 July 2017
Last updated 7 August 2017 + show all updates

1. 7 August 2017 An error in the thermocouple references in Figure 2 has been corrected.
2. 28 July 2017 First published.

Related content

Emergency preparation, response and recovery (https://www.gov.uk/government/emergency-preparation-reponse-and-recovery)

Planning and building (https://www.gov.uk/housing-local-and-community/planning-and-building)

Collection

- Grenfell Tower (https://www.gov.uk/government/collections/grenfell-tower)