



Building Safety Programme: Monthly Data Release

Data as at 31 October 2018 unless otherwise stated
Coverage: England

Summary of latest figures (as of 31 October 2018)

There are **457 high-rise** (over 18 metres) **residential buildings** and **publicly-owned buildings** in England that were identified with Aluminium Composite Material (ACM) cladding systems unlikely to meet current Building Regulations guidance:

- **159** are **social sector residential buildings**, managed by local authorities or housing associations;
- **289** are **private sector buildings**, of which:
 - **199** are **private residential**,
 - **29** are **hotels**, and
 - **61** are **student accommodation**.
- **9** are **publicly-owned buildings**, comprising hospitals and schools.

Of these 457 buildings, **47 have finished remediation** - including receiving sign-off from building control where necessary. This leaves a total of 410 high-rise residential and publicly-owned buildings in England currently with ACM cladding systems unlikely to meet current Building Regulations guidance.

There remain 24 private sector residential buildings where the cladding status is still to be confirmed – this has fallen from approximately 170 buildings in June.

Of the **159 social sector buildings**:

- **28 have finished remediation**;
- 87 have started remediation;
- 40 have a remediation plan in place but remediation works haven't started on these buildings yet; and
- building owners intend to remediate and are developing plans for a further 4 buildings.

Of the **289 private sector buildings**:

- **19 have finished remediation**;
- 21 have started remediation;
- 98 have a remediation plan in place but remediation works haven't started on these buildings yet;
- building owners intend to remediate and are developing plans for 49 buildings; and
- remediation plans remain unclear for 102 buildings – the number where plans for remediation remain unclear has fallen from over 200 in June

Building Safety Programme

Monthly Data Release

8 November 2018

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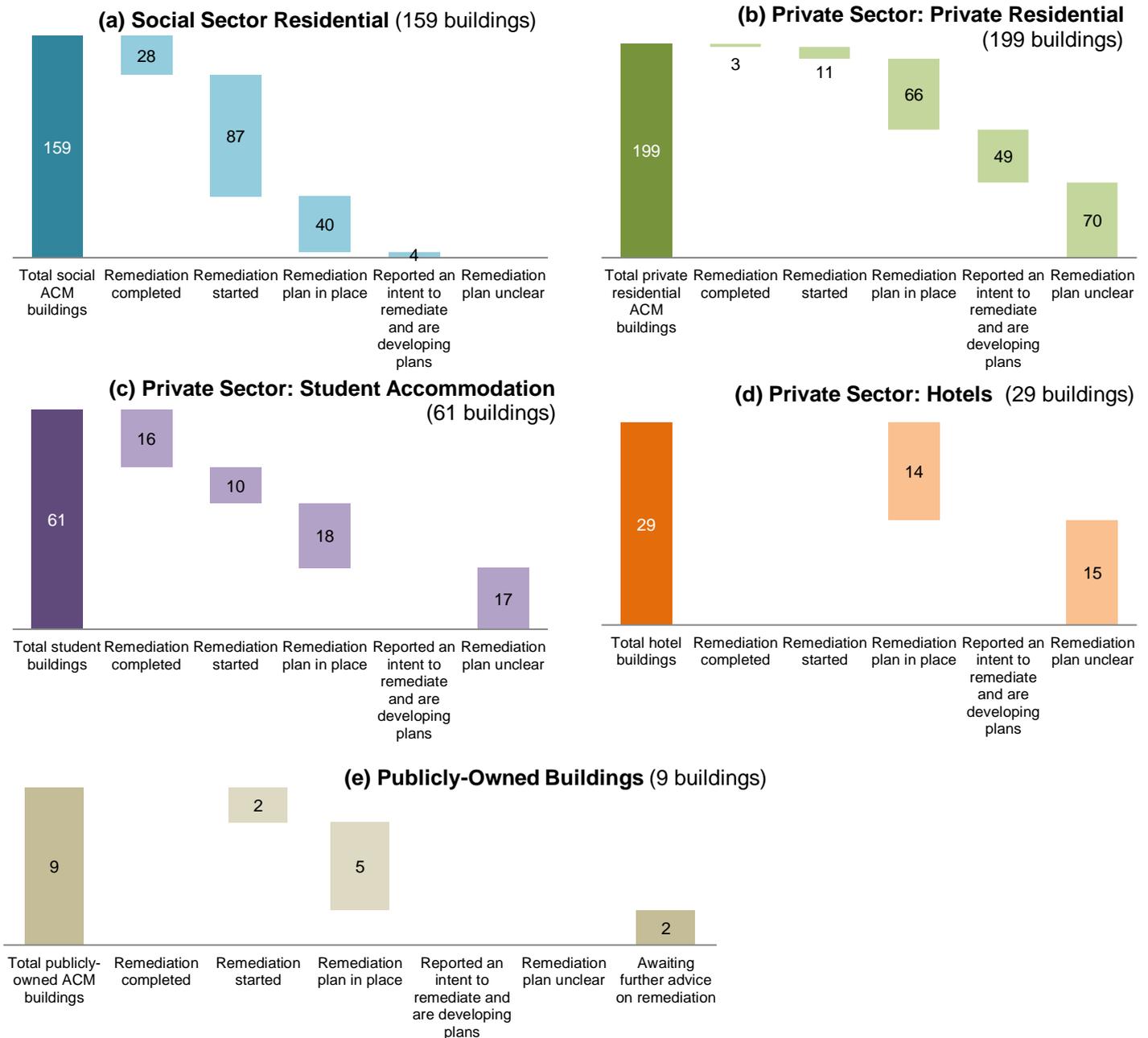
Figure 1: Total buildings with ACM cladding systems unlikely to meet current Building Regulations guidance

England, 31 October 2018



Figure 2: Progress on remediation for buildings with ACM cladding systems unlikely to meet current Building Regulations guidance: (a) social sector residential, (b) private residential, (c) student accommodation, (d) hotels, (e) publicly-owned buildings¹

England, 31 October 2018



¹In figures 2a-d, buildings awaiting further advice on remediation are included in the remediation plan unclear category.
Building Safety Programme Monthly Data Release, data as at 31 October 2018 unless otherwise stated.

Figure 3: Location of social and private sector high-rise residential and publicly-owned buildings with ACM cladding systems unlikely to meet current building regulations guidance.

England, 31 October 2018

This table/map has been removed. Please contact us if you require further information.

Introduction

Following the Grenfell Tower tragedy, the Government established a Building Safety Programme with the aim of ensuring that residents of high-rise residential buildings are safe, and feel safe from the risk of fire, now and in the future.

This data release provides the latest data on:

- 1) numbers of high-rise (over 18 metres) residential buildings and publicly-owned buildings in England with Aluminium Composite Material (ACM) cladding systems which are unlikely to meet current Building Regulations guidance; and
- 2) progress with remediating the above buildings.

The data release uses data from several sources to confirm whether a high-rise building has a combination of ACM cladding and insulation which are unlikely to meet current Building Regulations guidance (see Appendix 1):

- tests undertaken by the Building Research Establishment (BRE);
- local authority reporting of buildings following their own investigations; and
- discussions with responsible stakeholders – including building owners, developers and agents.

The remediation of buildings with unsafe ACM cladding systems is a complex process. Remediation work involves addressing any issues with the exterior cladding system and broader fire safety systems for each building. All of this work takes time and varies considerably depending on the building structure, extent of cladding, and existing fire safety systems. For many buildings this is a complex job involving major construction work which needs to be planned, consulted on and carried out carefully. The government has worked with the Industry Response Group and Expert Panel to develop an [information note](#) to assist building owners in carrying out remediation work.

Additionally, advice for [buildings with partially clad ACM cladding systems](#) has been released to provide advice to building owners, their professional advisers and fire and rescue services when considering whether it is safe to leave small or partial amounts of Aluminium Composite Material (ACM) cladding on a building.

For all of those high-rise buildings that have been confirmed as having ACM cladding that does not meet the limited combustibility requirements set out in building regulations guidance, the relevant fire and rescue service has been notified. They work with local authorities, housing associations, and building owners to ensure that immediate steps are taken to make buildings safe and that, in the longer term, cladding which is deemed to be unsafe is remediated as quickly as possible.

The Government's independent Expert Panel has advised that the clearest way of ensuring an external wall system adequately resists external fire spread is either for all of the relevant elements of the wall to be of limited combustibility, or to use an external wall system which can be shown to have passed a large-scale test conducted to BS8414 classified to the BR135 standard set out in current building regulations guidance (see Appendix 2).

The figures in this publication are correct as of the specified dates, but work is on-going to remove and replace ACM cladding systems unlikely to meet current Building Regulations guidance. This means that the figures include some buildings that have since removed ACM cladding.

The Ministry of Housing, Communities and Local Government will publish further data releases on:

- 6 December 2018,
- 10 January 2019, and
- 7 February 2019.

These will refer to the situation at the end of the previous calendar month. For example, the 6 December release will refer to the data as at 30 November.

Overview and updates

1) Number of high-rise residential and publicly-owned buildings with ACM cladding systems unlikely to meet current Building Regulations guidance.

MHCLG uses data from several sources to confirm whether a high-rise building has a combination of Aluminum Composite Material (ACM) cladding and insulation which are unlikely to meet current Building Regulations guidance (Appendix 1), including:

- **Building Research Establishment tests;**
- **Local authority confirmation**, following local authorities working with building owners and agents to identify any cladding issues; and
- **Discussions with responsible stakeholders** – including building owners, developers and agents.

The total number of high-rise residential buildings and publicly-owned buildings with ACM cladding systems that are unlikely to meet current Building Regulations guidance is 457².

Table 1: Social and private sector high-rise residential and publicly-owned buildings with ACM cladding systems unlikely to meet current building regulations guidance England, 31 October 2018

	31 Oct-18	12 Oct-18	Monthly change
Social sector residential	159	157	+2
Private sector	289	291	-2
Publicly-owned buildings	9	9	0
Total	457	457	0

We have collected data on over 6,000 private sector high-rise buildings. There remain 24 private sector buildings for which the cladding status is still to be confirmed – compared with approximately 170 in June 2018.

Enforcement notices have now been issued on the vast majority of these remaining buildings to get information on building construction from owners. Based on current evidence and the identification rate to date, we expect a handful of the remaining buildings to have ACM cladding systems unlikely to meet current Building Regulations guidance.

² During the application process for the government's social sector ACM cladding removal fund (launched on 17 May to help remediate social sector residential buildings) 8 buildings were reclassified between the social and private sectors, resulting in a net change of +2 private sector buildings (as reported in the 25 October Data Release). The categorisation of all buildings in the data release will be kept under review as further information becomes available from the fund applications and other data sources.

Once buildings with ACM cladding are identified, local authorities work with fire and rescue services to ensure that interim safety measures are in place and to ensure that the buildings are remediated to comply with Building Regulations.

2) Progress in remediating buildings

**Table 2: Social and private sector high-rise residential and publicly-owned building remediation, by tenure of residents
England, 31 October 2018**

	Completed Remediation	Started Remediation	Remediation plans in place	Reported an intent to remediate and are developing plans	Remediation plan unclear	Awaiting further advice on remediation	Total
Social sector residential buildings	28	87	40	4	0		159
Private sector buildings, of which:	19	21	98	49	102		289
Private: residential	3	11	66	49	70		199
Private: student accommodation	16	10	18	0	17		61
Private: hotels	0	0	14	0	15		29
Publicly-owned buildings, of which:	0	2	5	0	0	2	9
Schools	0	1	0	0	0		1
Health	0	1	5	0	0	2	8

2.1) Social sector remediation

Of the 159 social sector residential buildings with combinations of ACM and insulation that have failed BRE tests, as of 31 October 2018, 28 buildings (18%) have finished remediation – including receiving sign-off from building control where necessary. The number of finishes has increased by six since the mid-October data release. A further 87 buildings (55%) have started the process of remediation – a decrease of 11 since last month. There are plans in place/plans being developed for the remaining 44 social sector residential buildings – an increase of seven since last month. The reduction in reported starts partly reflects new remediation completions. It also reflects additional work with local authorities and building owners to improve the quality of remediation data. This has identified some buildings which were previously classified as remediation started which are now classified as having remediation plans in place.

2.2) Private sector remediation

Of the 289 private sector buildings, as of 31 October 2018 remediation is complete for 19 buildings (including building control sign-off) - an increase of two buildings since 12 October. A further 21 buildings have started remediation (this number has remained stable since 12 October) and an additional 98 buildings have plans in place for remediation – a total of 138 private sector high-rise buildings where respondents have informed us of remediation plans.

2.3) Publicly-owned buildings remediation

Of the nine publicly-owned buildings (publicly-owned schools and health buildings) with ACM cladding systems unlikely to meet current Building Regulations guidance, two have started remediation, and remediation plans are in place at this stage for a further five. Awaiting further advice on remediation for the remaining two buildings. DHSC and DfE are working with building owners on appropriate remedial work whilst taking account of building users' needs.

3) Net remediation status of buildings with ACM cladding systems unlikely to meet current Building Regulations guidance

Table 3 summarises the stock of remaining buildings in England with ACM cladding systems unlikely to meet current Building Regulations guidance as at 31 October. In total, 410 buildings remain with ACM cladding systems, of which 131 are social sector residential buildings, 270 private sector buildings, and nine publicly-owned buildings.

**Table 3: Remediation status of social and private sector high-rise residential and publicly-owned buildings with ACM cladding systems
England, 31 October 2018**

	Total	Remediation Completed	Current Stock of Buildings with unremediated ACM cladding systems
Social sector residential	159	28	131
Private sector	289	19	270
Publicly-owned buildings	9	0	9
Total	457	47	410

Appendix 1: Data sources for identifying buildings with ACM cladding systems unlikely to meet current Building Regulations guidance

MHCLG uses data from several sources to confirm whether a high-rise building has a combination of ACM cladding and insulation which are unlikely to meet current Building Regulations guidance, including:

- **Building Research Establishment tests;**
- **Local authority confirmation**, following local authorities working with building owners to identify any cladding issues; and
- **Discussions with responsible stakeholders** – including building owners, developers and agents.

Building Research Establishment tests

Since Summer 2017 MHCLG have been funding the testing of cladding from high-rise residential buildings at the BRE. This establishes the category of ACM cladding, which, along with insulation type, determine compliance with Building Regulations. MHCLG are reasonably confident that all social sector high-rise residential and publicly-owned buildings with ACM cladding have been identified. The BRE test data for private and social residential buildings, and publicly-owned buildings, have been published in data releases since December 2017 – further information on this is provided in Appendix 2.

Local authority confirmed ACM buildings

Since Autumn 2017, local authorities have been working with private sector building owners to ascertain combinations of ACM cladding and insulation on high-rise private sector residential buildings which have not been tested by BRE. Local authorities have used information from sources such as local fire and rescue services, building plans, ACM tests undertaken elsewhere, knowledge of similar buildings where BRE tests have confirmed ACM cladding, and / or building inspections. MHCLG has been running a continuous data collection on this private sector information, to build a comprehensive picture of high-rise residential buildings with unsafe combinations of cladding and insulation.

Many approaches have been adopted by MHCLG and local authorities over the last few months to identify the cladding and insulation status of the remaining private sector buildings. This has included the payment of an allowance to local authorities for identifying buildings or starting an enforcement process³ against building owners, with a cut-off date at end May. The cladding status of 24 private sector residential buildings remains unclear. For the majority of these buildings, enforcement notices have now been issued to get information on building construction from owners.

³ Local authority enforcement powers under the 2004 Housing Act include Section 235 powers to demand documents from building owners, and Section 239 powers to take a sample of a building for testing.

The data release of 28th June 2018 was the first that included data confirmed by local authorities. MHCLG are confident that the vast majority of buildings with cladding systems which are unlikely to meet current Building Regulations guidance have been identified, and publishing the data ensures transparency on high-rise building safety. However, additional quality checks by local authorities over the coming months might result in marginal changes in this data – for example, if a building turns out to be below 18 metres tall or the cladding and insulation combinations meet building regulations guidance.

Discussions with responsible stakeholders

Since Spring 2018 MHCLG have been talking with building owners, developers and agents to ascertain updates on remediation. When this information has been confirmed by local authorities (for starts, completions and buildings which are out of scope), it is included in the data release.

Appendix 2: Buildings with ACM cladding identified by the Building Research Establishment

As of 31 October, BRE had received 2,108 samples for testing under the programme established by MHCLG. Of these, 705 have been confirmed to be ACM.

The main reason that the number of samples confirmed as ACM by BRE (705) is larger than the number of residential high-rise buildings and publicly-owned buildings reported as having failed BRE tests (317) is that more than one sample can be submitted for testing for the same building. This data also includes samples from commercial buildings and buildings outside of England. Many of the remaining cases could not be tested because they were not made of ACM (e.g. brick, stone).

At the time of the last data release BRE had received 2,104 samples, of which 705 had been confirmed as ACM. There have been no additional ACM samples tested between 15 October and 31 October 2018.

Table 4: Samples received by BRE for testing – 31 October 2018

	Number of buildings
Samples received by BRE	2,108
Samples confirmed as ACM (tested)	705
Samples confirmed as non-ACM materials (untested)	1,400

When a building has a BRE test, the ACM can be classified as one of the following categories:

- Category 1: A2 filler
- Category 2: fire-retardant polyethylene filler
- Category 3: polyethylene filler

When considered together with the building's insulation, the category of ACM determines the correspondence to the large-scale systems tests undertaken at BRE between 28 July and 21 August 2017. This is displayed in Table 5. Some definitions of the terms used in this section of the release are shown below.

Expert Panel: Following the Grenfell Tower tragedy, the government appointed an independent Expert Panel to provide advice to the Secretary of State for Housing, Communities and Local Government on immediate building safety measures.

The Expert Panel, chaired by Sir Ken Knight, was established to recommend to the government any immediate action it thinks is necessary to improve public safety and help identify buildings of concern.

The panel has a wealth of experience in fire and building safety, including testing processes, and is drawing on wider technical expertise as necessary to inform this advice.

Large-scale system test: On the basis of the screening test results, and on advice from the Expert Panel, the government commissioned a series of large scale system tests, testing how different types of ACM panels behave in a fire with different types of insulation. The British Standard test used for the large scale tests (BS8414) is a way of demonstrating that a wall system meets Building Regulations guidance for buildings over 18m. Seven tests were undertaken in priority order, taking into consideration which systems were likely to present most risk, so urgent advice could be provided to building owners.

Fail: Any building over 18 metres tall fitted with cladding materials that did not adequately resist the spread of fire on a large-scale systems test.

On the large-scale system tests, the wall systems did not adequately resist the spread of fire over the wall to the standard required by the current Building Regulations guidance and which is set out in BR135. These combinations of materials present a notable fire hazard on buildings over 18 metres.

Based on the test results, the Expert Panel's advice is that they do not believe that any wall system containing an ACM category 3 cladding panel, even when combined with limited combustibility insulation material, would meet current Building Regulations guidance, and are not aware of any tests of such combinations meeting the standard set by BR135.

In the absence of any other large-scale test evidence, it is unlikely that any combination of ACM cladding with fire retardant polyethylene filler (category 2 in screening tests) and rigid polymeric foam insulation would pass the BS8414-1 test, and therefore it would fail to meet current Building Regulations guidance.

Pass: Any building over 18 metres tall fitted with cladding materials that adequately resisted the spread of fire on a large-scale systems test.

The wall systems with A2 filler (category 1) passed the test, which means they adequately resisted the spread of fire over the wall to the standard required by the current Building Regulations guidance and which is set out in BR135.

However, the composition of different products from different manufacturers will vary and it is possible that products from different manufacturers may behave differently in a fire. Equally, it is important to note that the materials used may have been fitted or maintained differently to how the tests were specified and constructed, which can affect the safety of the cladding system.

On the large-scale system tests, the wall system with fire retardant polyethylene filler (category 2) and stone-wool insulation adequately resisted the spread of fire over the wall to the standard required by the current Building Regulations guidance and which is set out in BR135.

However, it is important to note that there are many different variants of this cladding and insulation and it is possible that products from different manufacturers may behave differently in a fire. The composition of ACM panels with fire retardant polyethylene filler can vary between manufacturers. The average of the calorific values of the fire retardant panels used in the test was 13.6 MJ/kg. Building owners with this combination of materials should consult their screening tests to check how their category 2 values compare. A higher value will indicate greater combustibility

than the panel used, and vice versa.

Equally, it is important to note that materials may have been fitted or maintained differently to how the tests were specified and constructed, which can affect the safety of the cladding system. Fixing details and the provision of cavity barriers are also important. Building owners should seek professional advice that looks at the specific circumstances of their building.

Inferred Fail: a case where either a building over 18 metres tall has an untested wall system or the building owner has not disclosed details of the wall system. In these cases, the result is inferred from the ACM cladding alone. In cases of category 2 or category 3 cladding, this is inferred as a fail.

If the ACM cladding were category 1, the case would be an **Inferred Pass**. There have been no such cases received by BRE under the Building Safety Programme.

Table 5: Descriptions of large-scale system tests undertaken by the BRE and the number of buildings with similar cladding systems – 31 October 2018

Large-scale system test	ACM cladding category tested	Insulation type tested	Result	Private Buildings	Social Buildings	Publicly-Owned Buildings	Total Buildings
1	Category 3	Foam Insulation	Fail	46	39	2	87
2	Category 3	Mineral Wool	Fail	22	83	0	105
3	Category 2	PIR foam	Fail	4	4	0	8
4	Category 2	Mineral Wool	Pass	5	6	1	12
5	Category 1	Foam Insulation	Pass	0	0	0	0
6	Category 1	Mineral Wool	Pass	0	0	0	0
7	Category 2	Phenolic Foam	Fail	9	14	0	23
Na	Category 3	Not in a systems test	Inferred fail	54	14	5	73
Na	Category 2	Not in a systems test	Inferred fail	19	0	2	21
Na	Category 1	Not in a systems test	Inferred pass	0	0	0	0
Subtotal: Total number of buildings failed BRE test				154	154	9	317
Confirmed by local authorities as having similar ACM cladding systems to those which have failed large-scale system tests				135	5	0	140
Total number of buildings with unsafe ACM cladding which are unlikely to meet current building regulation				289	159	9	457
Subtotal: Total number of buildings passed BRE test				5	6	1	12
Total number of buildings with confirmed ACM				294	165	10	469

Appendix 3: Local authority areas with high-rise residential buildings and publicly-owned buildings with ACM cladding systems unlikely to meet current Building Regulations guidance.

The tables below set out local authority areas with high-rise residential buildings and publicly-owned buildings with ACM cladding systems that are unlikely to meet current Building Regulations guidance.

Tables are grouped by bands for the number of buildings in each area. The bands used are 1 to 5 buildings, 6 to 10 buildings, and 11 or more buildings. The buildings included are all either a residential building over 18 metres tall or a publicly-owned building and have an ACM cladding system corresponding to those tested in large-scale system tests 1, 2, 3 and 7 (the cases where the systems failed to prevent the spread of fire), or have a cladding system that has been inferred to have failed.

There are 78 local authorities in England with at least one such building within their boundaries.

Local authorities with fewer than ten high-rise residential buildings (regardless of whether or not they have cladding) have been removed from the tables below, as their inclusion could lead to the identification of one or more buildings with ACM cladding in these areas – hence 70 local authorities are listed below.

Table 6: Local authorities with social and private sector high-rise residential buildings and publicly-owned buildings with ACM cladding systems unlikely to meet current Building Regulations guidance

This table/map has been removed. Please contact us if you require further information.

Appendix 4: Voluntary compliance with the Code of Practice for Statistics

[The Code of Practice for Statistics](#) was published in February 2018 to set standards for organisations in producing and publishing official statistics and ensure that statistics serve the public good.

Whilst MHCLG's Building Safety Programme Data Release is not National Statistics, the principles of transparency of high-quality analytical outputs to inform decision making and the public underpin this data release.

<p>Trustworthiness: trusted people, processes and analysis</p>	<p>Honesty and integrity (T1): The Building Safety Programme Data Release is managed by professional analysts in MHCLG – this involves design of data collection tools, checking of provided data, and analysis. All work is undertaken by professionally qualified and experienced data analysts - professional members of the Government Statistical Service, Government Operational Research Service or Government Social Research, where all staff have Personal Development Plans focussed on their long-term professional development (Professional capability – T5).</p> <p>Independent decision making and leadership (T2): The work is governed by the Analysis and Data Directorate in MHCLG, accountable to MHCLG's Chief Analyst and Head of Profession for Statistics.</p> <p>Orderly release (T3): MHCLG pre-announces the publication date for this data release. As part of our continuous improvement, the data cut off date for Data Releases now aligns to the end of the calendar month.</p> <p>Transparent processes and management (T4): MHCLG has robust, transparent, data-management processes.</p> <p>All data are provided by local authorities, housing associations, building owners / developers / managing agents, the NHS, Department for Education (DfE) and the Building Research Establishment (BRE). Responsibility for the data lies with the data provider - as such only data either provided by BRE following testing or data verified by local authorities, housing associations, the NHS or DfE are published.</p> <p>Data Governance (T6): MHCLG uses robust data collection and release processes to ensure data confidentiality. A published privacy notice clearly sets out why data are collected, data sharing, and the legal basis for processing data. This is consistent with the General Data Protection Regulation.</p>
<p>High quality: robust data, methods and processes</p>	<p>Suitable data sources (Q1): Data originates from a number of sources outside the control of MHCLG: local authorities, local Fire and Rescue Services, housing associations, building owners / developers / managing agents, NHS, DfE, BRE. Data are triangulated, where possible, and data are always verified by these bodies – who are ultimately responsible for the quality of their data. Where the quality of data is unclear, it is either not published or quality issues are highlighted.</p> <p>We believe that our dataset now contains the vast majority of high-rise buildings in England. We have collected data on over 6,000 private sector buildings of which the cladding status remains unconfirmed on 24 buildings. We expect a handful of these buildings to have similar ACM cladding to those that failed a BRE large-scale systems test.</p> <p>Sound methods (Q2): Data collection tools and processes are robustly designed and tested prior to use, learning lessons from previous Building Safety Programme data collections and best practice from across the government analytical community.</p> <p>Assured Quality (Q3): All data are quality-assured prior to publication.</p> <p>As the quality of data improves, it is our intention to publish further data on the safety of high-rise and complex buildings.</p>

<p>Public value: supporting society's need for information and accessible to all</p>	<p>Relevance to users (V1): The nature of building safety means this data release is of high value to the public, to residents of high-rise buildings and building owners/developers. However, the data release balances disclosure control (risks of disclosing individual buildings) with informing the public and keeping people safe.</p> <p>Accessibility (V2): Given the immediate nature of building-safety issues, and the need to develop interim solutions and longer-term remediation, data from the Building Research Establishment are shared with Fire and Rescue Services and Local Authorities once MHCLG are aware of issues.</p> <p>Officials and Ministers also use the data prior to publication to monitor progress and develop timely interventions. This enables immediate action to be taken. Therefore, the data may be used for operational purposes before publication in this data release.</p> <p>Clarity and Insight (V3): Complex data are clearly explained in the Data Release – see Appendix 2 for definitions of key terms. Where insight and interpretation are offered, these have been verified with local authorities, Building Research Establishment and other knowledgeable bodies.</p> <p>Innovation and improvement (V4): This data release series started in December 2017. As the quality of data improves, it is our intention to publish further data on the safety of high-rise and complex buildings.</p> <p>Efficiency and proportionality (V5): Burdens on data providers have been considered, and MHCLG has worked to minimise the burden. Given the nature of building safety, MHCLG feels the current burden on data providers is appropriate.</p> <p>Given issues of public safety, only aggregate level data are published. Hence, further analysis of primary data is not possible.</p>
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