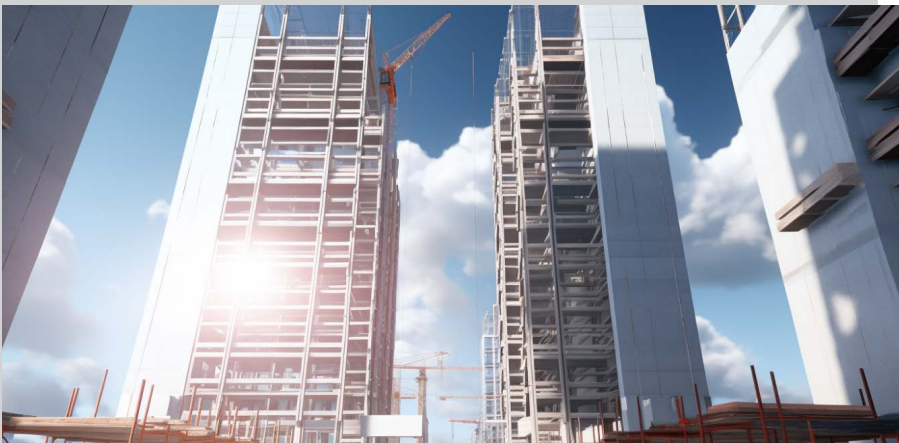




WHITE PAPER



• • • •

The Building Safety Act:

Leveraging legislative change to drive best practice and accountability in façade design and delivery.

• • • •

Foreword

Let's build a better tomorrow

These are interesting times. Transformative. Fast-paced. Exciting. As we balance the sometimes conflicting challenges of constructing buildings that are sustainable, high performance, low maintenance, safe, resilient, affordable, and relevant, we must do so while ensuring that our projects are not only compliant with existing legislation, but also anticipate potential future regulations, such as the recent changes to the Building Safety Act.

It's a tough ask for specifiers. Against a backdrop of evolving legislation, there is also a constantly changing landscape of building systems innovation, with new products coming to market that can be transformative in terms of a wide variety of performance criteria.

But how do you separate what's genuinely different and game-changing, from products that are simply new versions of the same established thinking? And at what point do you move on from tried and tested specifications you know and trust, to ground-breaking new approaches that could improve buildability through simplification, and elevate performance by enhancing longevity, reducing environmental impact, and providing low maintenance benefits?

Part of the answer to those questions lies in collaboration across the supply chain. At ARBO, as a trusted systems manufacturer for the construction industry, we stay ahead of legislative change, developing products in advance of regulations and pushing the boundaries of best practice. And as part of CARLISLE, a global leader in waterproofing and building envelope systems, we anticipate trends and keep up to speed with the latest thinking from around the world.

What that means for our customers is the potential for an added value partnership, that draws on our expertise and market intelligence, assisting you in meeting current regulations, planned changes, and likely future updates. Our goal is to support you in making specification decisions that achieve the sustainability, performance, buildability, and commercial goals for your project.

In this briefing document, we discuss the recent changes to the Building Safety Act and what they mean for best practice façade specification. We also share our insights into the benefits of simplifying the façade build-up, including how reducing complexity on site can boost performance, safety, and sustainability for your building, while reducing your project's commercial and environmental cost.

We hope you will find these insights useful and informative. This briefing document is intended as a talking point – we'd love to continue the conversation.

Dave Black

Director UK Sales, Technical and Export ARBO

...

The Building Safety Act – What are the changes and what do they mean?

In 2022, the Building Safety Act (BSA) received a complete overhaul, making the whole construction delivery chain more accountable for building safety than ever before. These changes, which came into force in October 2023, are the most substantial in almost four decades. As a direct legislative response to the Grenfell Tower tragedy of 2017, they are intended to put residents at the heart of the design and specification process, ensuring people feel happier and safer in their homes, and restoring public confidence in the construction sector.

These changes follow on from the recent Fire Safety Act reform, and though they have implications for all buildings and across the entire construction sector, they place specific controls on residential buildings of 18 metres* or more in height, and those with multiple dwellings. The changes to the BSA can be broken down into five main categories – namely: Scope, Competence, Information Management, Accountability, and the “Gateway” concept.

Scope

While the responsibility for competence affects all building projects that have not been sufficiently progressed before 6th April 2024, and the new best practice requirements throughout the sector regardless of any mandatory duty, it is important to understand whether your project comes under the new controls of the Building Safety Regulator.

Questions to consider include:

- 1 Is the building more than 18m* in height?
- 2 Does it have seven or more storeys and two or more residences?
- 3 Is it student accommodation, a hospital, or a care home?

If you answer yes to any of these questions, the building is considered a ‘high-risk residential building’ (or HRRB) and will be subject to the full weight of the new guidelines.

Competence

The Act lays down a legal requirement to ensure the competence of all parties involved in the project. The competence of clients, designers, and contractors must be established, verified, and documented at all stages of design and construction, ensuring compliance with Building Regulations. Principal Designers and Contractors bear the responsibility to complete the job competently – it is important to note that Lead Architects here take on the role of Principal Designer and should be well acquainted with all changes to the Act.

Information Management

The ‘Golden Thread of Information’ is a cornerstone of the revised BSA. In simple terms, this is the audit trail of a project from conception to completion. Crucially, the ethos is that the design and construction phases serve the occupied phase of the building, with the ultimate goal being that the building can be effectively managed aligned to the requirements for its purpose and the design and specification intent. The goal is healthy, aesthetic, and safe buildings, with lifespans that extend far into the future.

Key to achieving that goal is the provision and effective handover of accurate and relevant information at all stages. It is important to consider how you will plan, manage, and monitor your project throughout its design and construction and how you will document that process in a meaningful way that will enable effective legacy management of the asset. Effective and collaborative information management and storage solutions are crucial.

*Excluding Scotland



• • • •

Can your information be accessed easily and digitally? Can the Accountable Person (i.e. landlord, freeholder) access and interpret this information further down the line, once the building is occupied? Clarity, accuracy, and accessibility are all key elements of this obligation.

Accountability

Directly linked to competence, the new regulatory changes refer to Duty Holders (Principal Designers/Principal Contractors) who are responsible for building safety and may be penalised for non-compliance. This accountability applies to all buildings, not only those outlined in the Scope and controlled by the Building Safety Regulator. It is important to note that Duty Holders must be appointed for ALL projects.

This accountability extends beyond completion to the period of occupancy, and in accordance with the Building Safety (Leaseholder Protections) (England) Regulations 2022 and Schedule 8 of the Act, financial responsibilities of certain long leaseholders concerning remediation costs must be made clear.

All existing buildings over 18m* or 7 storeys, with two or more residences, should have been registered with the Building Safety Regulator (BSR), and the BSR is now rolling out a three-year plan to assess all such buildings on a priority basis.

The Gateway Concept

Firstly, the Act's new Gateway approach limits the choice of Building Control provider for all buildings in scope, with projects submitting

Building Control approval applications direct to the BSR, and the BSR now in a position to issue building assessment certificates. This new system is much broader in its demands than the previous regime and demands that the Duty Holders' state much more clearly how the building meets requirements.

Alongside the Golden Thread, Gateways 2 and 3 are the biggest changes to the BSA. Together, they mandate that the design, construction, and operational phases be considered as a joined-up process before a project can commence. Gateway 2, for example, involves a full application for HRRBs, including competence, fire safety, control measures, and mandatory reporting.

Meanwhile, Gateway 3 requires the receipt of a completion certificate, which will not be granted if the building falls short of its earlier approved plans. These gateway stops are impassable without documentation, and without documentation, the building cannot be occupied.

All this is intended to raise the standards, and improve management information in the construction industry, making the sector accountable for occupied buildings and their inhabitants. Failure to comply is much more than a compliance issue, as any failings could result in a building that cannot be occupied and therefore cannot recoup its build costs.

• • • •

*Excluding Scotland

How can we make facades better and why should we?



The UK has a rich architectural heritage, with buildings that have stood the test of time for centuries. Much of that built environment legacy would come nowhere near passing contemporary building regulations, but it was built for a different time, when environmental and safety considerations were not high on the agenda. Contemporary construction projects, however, face different definitions of anticipated service life and sustainability – with the facade quite literally being at the forefront of such concerns.

A building facade system, aside from its aesthetic impact, is designed for weather resistance and equipped with thermal, acoustic, fire, and impact resilience. In the wake of challenges like RAAC concrete and combustible cladding, we know relying solely on existing compliance standards is insufficient. Specifiers must focus on the longevity and sustainability of facades and select solutions that anticipate future standards in order to ensure superior performance, prolonged service life, cost-effectiveness, and improved environmental credentials.

If we put the residents at the heart of any new building project, it becomes clear that improvements to façade performance should be focused around protecting the building and its occupants. Any facade specification requires a balance between protection from the outside and improving indoor comfort. For example, we want light and air to penetrate the building, while harsher weather elements should remain outside. We want residents to feel protected by the structure, without feeling either sealed in, or exposed. Fundamental to this conversation is the facade membrane and its ability to mediate between external and internal environments.

A good membrane should be able to expel the moisture and humidity generated by everyday living, while retaining the warm air generated from heating, and in doing so, improve the lifespan of the building, along with its energy

efficiency. While there is currently no obligation to use class A certified facade membranes, due to a lack of available A1 systems until recently, it is now possible to specify a Class A certified membrane. Consequently, this has now become best practice and, in combination with high-quality sealants, insulation cladding, and other auxiliary materials, membrane specification should aim to meet class A2-s1, d0, or class A certification (as stipulated in the recent updates to the Building Safety Act 2022). This not only aligns with the competence and accountability principles of the HRRB guidelines, but also anticipates any further tightening of regulations, futureproofing the building.

In addition, transparent or translucent membranes can be used as aesthetic materials in their own right, creating striking visual effects, as in the case of the English National Ballet School (RIBA National Award for Architecture 2021), where ARBO sealants were used to give the building a translucent and lightweight effect while offering glimpses of illumination into the movement at the building's core.

The recent updates to the Building Safety Act are intended to improve the integrity of the construction industry as a whole, making the entire delivery chain more accountable for its decisions and actions. Greater transparency is now required from building owners in terms of information sharing and safety measures, and the Duty Holders responsible for building safety and maintenance face more rigid controls, with penalties for non-compliance. It is important to consider the soundness of all materials involved in the construction process, from the foundations to the structural frame right through to the sealant and all elements of the facade. Working collaboratively with the supply chain to discover the latest innovations and how they can enhance the safety, and comfort of your building is critical to both compliance and performance.

Mark Halliday

Divisional Facades & Technical Manager

...

Driving best practice from specification to site

Current building regulations require all buildings that are 18m* tall or more, with seven or more storeys and two or more residences, have facades of class A1 or A2-s1, d0 to BS EN 13501-1. However, certain facade products fall outside this protocol. Products such as membranes, gaskets, and seals are not bound by the new BSA regulations because at the time there were no products on the market to fit the criteria. This omission in the BSA does not need to translate into an omission in HRRB best practices, and now class A membranes are available, they should be used and understood.

Key factors in determining membrane quality include:

- Weatherproofing effectiveness
- Fire resistance
- Airtightness
- Vapour permeability
- Durability
- Compatibility with other materials
- Ease of installation
- Compliance with building codes.

But the test data that defines membrane performance, either as a standalone material or as part of a façade build-up, is not always reflected in its in-situ performance as an installed element of a completed façade.

This is where the changes to the BSA reflect the need for a cultural shift in decision making for specifiers. The proven performance of the membrane on a data sheet or BBA certification is no longer sufficient to represent true due diligence. The updated BSA criteria of competence, accountability, and information management means that greater scrutiny is required when it comes to installed performance. In essence, how likely is it that the system or products chosen will offer the buildability and ease of installation required to deliver the specified performance when the building is under construction and throughout the operational phase?

...

*Excluding Scotland

Specifying buildability into performance

The journey from specification to installation on site is often paved with interpretation and pragmatism. If the specification doesn't quite work once the build is in progress, those responsible for making sure that the schedule doesn't slip will often find a workaround. Overly complex facade build ups using products that require a high level of skill and time to install can often lead to installations that fall short of the manufacturer's guidelines, often resulting in a performance that falls below the level anticipated at specification.

Simplification might sound like doing less, but reducing complexity – in design, the number of products used, and the speed and difficulty of installation – is the fastest route to improved performance for each element and the building as a whole. If our aim is to build better buildings that are safer, more comfortable, and more environmentally friendly, a best-practice approach to selecting systems that reduce complexity and enhance buildability on site is critical. When it comes to the safety and performance of facades, this approach not only underpins compliance and quality at completion, but it also futureproofs the building against further updates to regulations and makes it less onerous to manage and maintain throughout the operational phase.

At ARBO, our focus on reducing the complexity of façade build-ups and combining that imperative with the need for safer, non-combustible facades has led to the development of our ARBOShield Pro® External Perimeter Class A Membrane (EPAM) ®; the only class A rated self-adhesive external window and perimeter seal membrane available to UK specifiers. Not only does this external perimeter seal membrane provide an effective airtight, vapour permeable seal at critical junctions, such as window and door apertures, but it also reduces complexity and enables easier, more consistent installation, delivering predictability of performance across all quality and safety criteria.

The benefit of best practice specification

Architects and specifiers are the catalysts for change in the construction industry. Long before legislation catches up, it is specifiers who drive best practice in delivering better, safer, and more environmentally responsible buildings.

But not all the choices a specifier selects are carried forward to the finished building. In the real world, commercial pressures and an ingrained culture of measuring financial viability based on capex returns rather than whole life costs and legacy value can compromise intended best practice.

The update to the BSA may help to provide the design and specification community with a framework to support best practice specification. The requirements to evidence

competence, accountability, and the Golden Thread of Information mean that there are compliance arguments for prioritising safety, performance, and buildability over cost.

But the need to articulate a business case remains. These are challenging times, with the cost of materials and labour, along with strong competition for land and occupiers, adding to the financial pressure to build better for less.

So, how can a best practice approach to specification benefit a project commercially and operationally, as well as delivering a building that is better for the occupier, the planet and the built environment?

Risk mitigation

Specifying façade systems that simplify the façade build-up, enabling more consistent and predictable installation that supports the specified performance criteria on site, reduces the risk of compromised performance, integrity issues, site delays, and remediation. It not only reduces risk during the construction phase, but during the operational phase too, with lower maintenance, extended service life and better performance.

Performance

There is a direct correlation between improved buildability and enhanced performance. By reducing the complexity of the façade build-up and making critical building elements easier to install, we can ensure that the performance delivered on site is aligned to the tested and certified performance for the product or system chosen. This means that it will not only pass any inspection during the construction phase but also contribute to the building's performance and lifespan throughout the operational phase.



• • • •

Safety

Safety has always been a key driver for specification best practice, but the Grenfell tragedy taught us that there can be a broad gap between compliance and a best practice approach to safety-focused specification. The updates to the BSA will help to close that gap even further and we can expect to see future changes as the construction sector continues to learn and the building products industry continues to innovate. Safety, and in particular fire safety, is a critical concern for developers, occupiers, and building control. Systems and products that can provide proven standards of safety, with reduced risk of installation error are integral to the goal of designing and constructing safer buildings.

Sustainability

We are at five to midnight. The buildings we construct now need to be delivered with less waste, consume less energy, and last longer. Selecting systems that improve the performance of the building envelope so that finished asset requires less heating and cooling and provides a longer lifespan is critical to achieving a more sustainable built environment. Right-first-time installation with greater predictability and less waste is also integral to embedding sustainability goals at every touchpoint, from specification, through to site and occupation.

Cost

Opting for a best-in-class specification rather than taking a best within budget approach can be difficult, with so many commercial pressures involved in getting a project from concept to completion. But making choices that reduce complexity and improve buildability can help to reduce costs over the course of the build, as well as during the operational phase. For example, the reduced labour and waste involved in installing the ARBOShield PRO EPAM membrane means that it can be more cost effective than lower performance and less fire safe alternatives. What's more, following the update to the BSA, establishing a robust Golden Thread of Information that evidences the performance and safety benefits of the specification could even contribute to potential savings in liability insurance over the long term.

• • • •

ARBO Sales: Innovative Solutions for Success



For valuable industry insights and information and to explore our range of products, please use the QR code.

• • • •

To find out more on how to be accountable in façade delivery and design contact:
Mark Halliday, Divisional Facade & Technical Manager UK on
E: Mark.Halliday@ccm-Europe.com / M: 07979 243 331

Other Support:

Customer Service
T: 01773 826661

Technical Support
T: +44 204 583 5862
E: techservices@arbo.co.uk