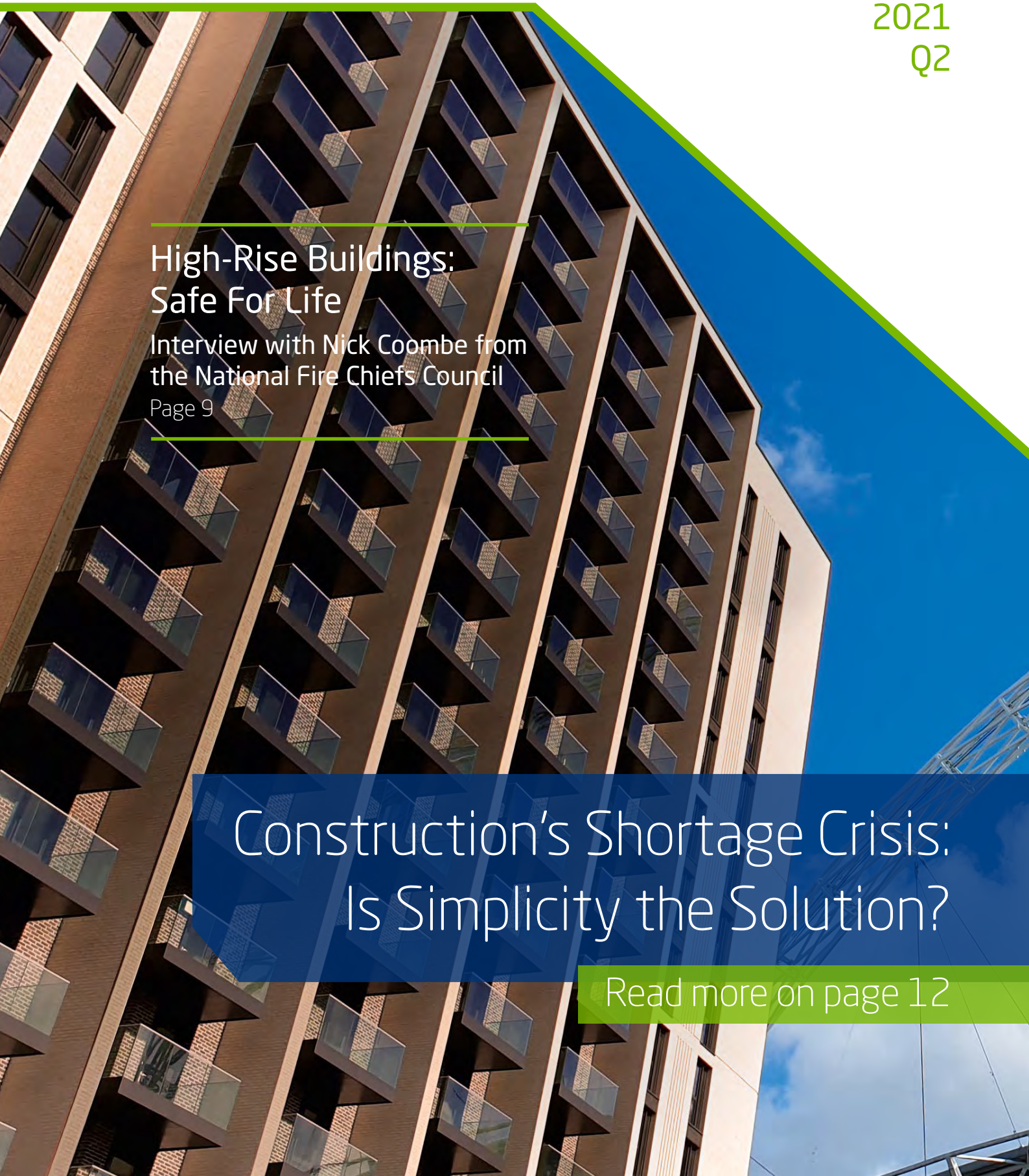
INSIGHT

The News Magazine From Sapphire

SAPPHIRE®

2021
Q2



High-Rise Buildings: Safe For Life

Interview with Nick Coombe from the National Fire Chiefs Council

Page 9

Construction's Shortage Crisis: Is Simplicity the Solution?

Read more on page 12

Editor's Overview

Editor

Hello I'm Mary, I'd love to hear your ideas for future content, or questions you would like our experts to answer in future issues. You can email me at mary.mccollum@sapphire.eu.com

In this issue of Insight Magazine we'll be exploring two of the most prominent topics on the minds of industry professionals, how to overcome the shortage and fire safety in high-rise residential buildings.

This quarter continues a challenging time in the industry, with the labour and materials shortages causing skyrocketing costs as projects work to get back on track post-COVID. Concerns continue about a troubling job market as EU workers return to the continent, which was predicted to escalate as a result of Brexit.

This issue is packed with interviews and expert insights, from Nick Coombe from the National Fire Chiefs Council on pg 9 to our Ask the Expert feature on a solution to the shortage crisis on pg 12. Plus find a summary of the Fire Safety Act on pg 7, what BS 8579 says about fire safety on pg 19 and a summary of the changes in legislation since the tragic fire at Grenfell Tower on pg 21.

Mary McCollum

Event Coordinator

Hello I'm Kelly, we run regular industry roundtable events and CPD's. To join an event or to book a balcony design, balcony fires or drainage CPD, email me at kelly.macklin@sapphire.eu.com

Kelly Macklin

Events

Hindsight

How Might Fire Safety Change Construction in the Next Few Years?
14th April 2021

Construction's Carbon Dilemma: Why, When & How?
26th May 2021

Foresight

Overcoming Shortages in Construction while Meeting New Requirements
7th July 2021

The shortage crisis in construction continues to impact productivity on sites throughout the UK. According to Construction News "Difficulties sourcing labour – following a drop in the number of EU-born workers in the UK – are likely to push up rates by at least 10 percent."

We'll hear from experts on unblocking constraints, with practical solutions.

Fire Safety in High-Rise Residential
11th August 2021

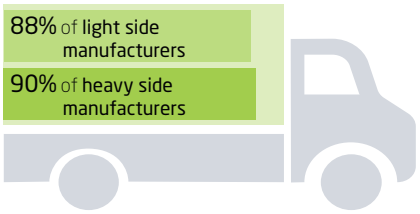
When a fire spreads in a residential building, it can quickly engulf the external envelope. This is because fire spreads vertically, so it's important to understand how a fire behaves at design stage.

With the ever-changing guidance and regulation what is the best practice to designing out fire risk in high-rise residential buildings?

This event brings together key design experts from across the industry to provide insight on mitigating fire risk early during the design stage of a project.

Open CPDs the First Tuesday of every month. **Book at www.resi.build**

Industry Insight

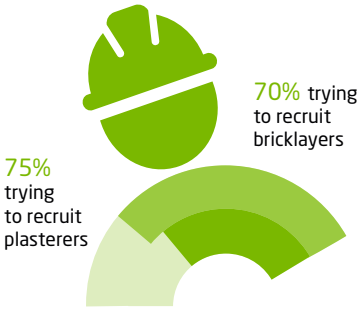


reported an annual rise in the cost of raw materials in Q1*

Technical Advice

Hello I'm Nick, I keep up to date with latest industry changes and regulations, to guide clients with technical design at early design stages of projects, email me at nick.haughton@sapphire.eu.com

40% reduction in construction costs through BIM & whole life costs*



Percentage of main contractors reporting difficulties in recruitment in Q4 of 2018

44 Glide-On™ Cassette® balconies installed in just 7 hours meant a reduction in labour as a result of their quick install capability

Simplification

The shortage crisis in construction continues to impact productivity on sites throughout the UK. Labour shortages, amplified by Brexit, are set to increase. According to Construction News "Difficulties sourcing labour – following a drop in the number of EU-born workers in the UK – are likely to push up rates by at least 10 per cent, recruiters have warned."

This shortage of labour coincides with the ongoing material shortage post-pandemic and the associated price increases. The sector has seen increases in cement, steel, aluminium and more. The Construction Products Association reported, "88% of light side manufacturers reported an annual rise in the cost of raw materials in Q1."

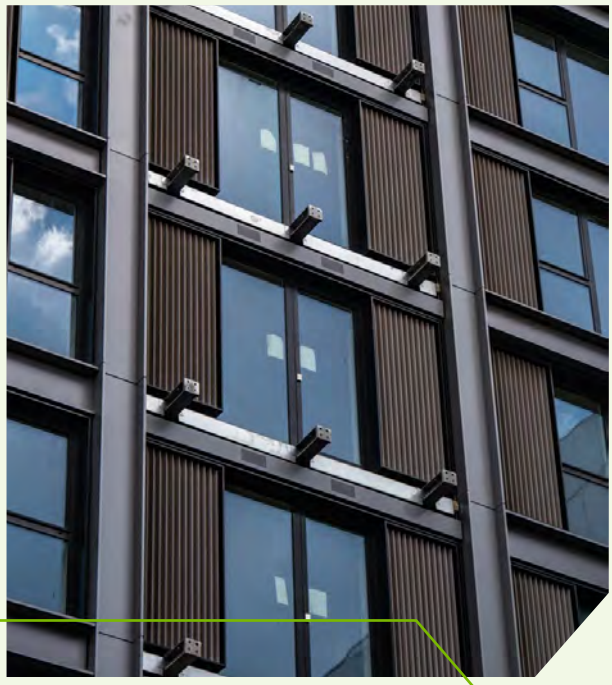
The skills shortage is amplified by complex building and envelope design. Complex design means more competency in skills is required by stakeholders to ensure build quality. A key issue highlighted in the Hackitt Report as a "key concern". Further to this, the lack of project repeatability and "minor" changes to the design have a knock-on effect on project costs. Lack of repeatability often means bespoke manufacturing requirements which in turn raises cost.

This furthers the need for simplification of design, build and delivery to achieve cost savings while overcoming the shortages. The standardisation of design such as reducing bespoke detailing, complex interfacing for both the external envelope and balconies, results in time savings both in the design and on site.

Nick Haughton

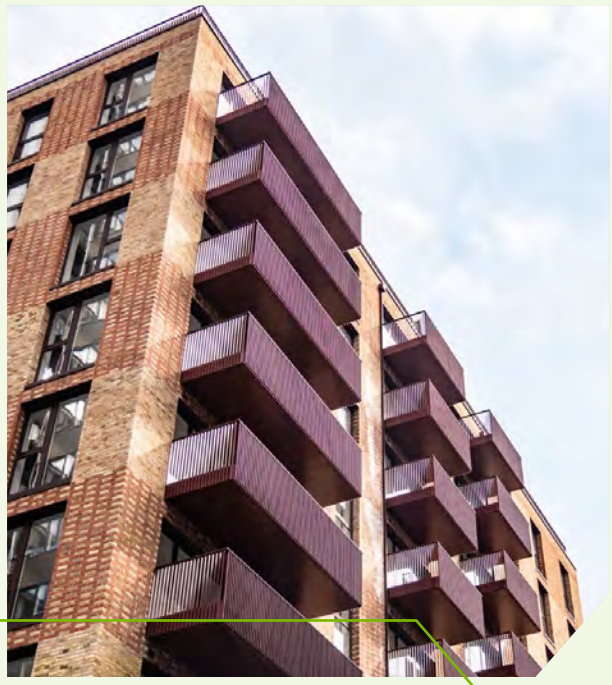
Nick Haughton

*https://www.constructionproducts.org.uk/news-media-events/news/2021/april/ongoing-recovery-in-q1-but-raw-materials-a-rising-constraint/
**https://www.buildspaceuk.com/blog/is-mmc-a-viable-solution-to-the-housing-crisis-



Taberner House

Our stubs installed awaiting arm and balcony install.



Elephant Park H5

Unique red vertical bar balustrades at Lendlease's Elephant Park H5 in Elephant and Castle.

Royal Arsenal Phase 9

Two towers at Royal Arsenal Phase 9 feature chamfered edges and gold fascias.

White City Phase 1

Balconies at White City are part of the vibrant new neighbourhood in West London.

North American Showroom Unveiled

Our brand new showroom designed for the North American market has been unveiled ahead of its journey across the Atlantic. The showroom features four balconies, a canopy and a seating area to give clients the look and feel of a Sapphire balcony, anywhere in the world. The showroom is at sea, first stop Toronto, and will be arriving in the coming weeks.

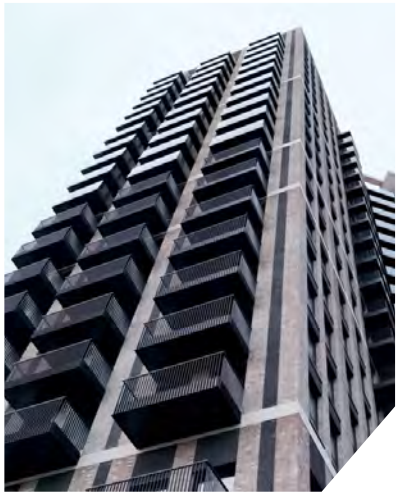
Labour and Materials Crisis Strikes

The shortage of labour and materials is one of the biggest challenges facing the industry today. The cost of key construction materials has skyrocketed due to short supply globally thanks in part to reduced manufacturing during 2020 and a surge in demand post-lockdown. The cost of timber has increased by over 80% in the first half of 2021 and fabricated structural steel is up by over 17% since March 2020.

Construction's labour shortage has been long-anticipated as a result of Brexit and a lack of new workers entering site trades. Bricklayers and plasterers are in particularly short supply with specialist labour roles also becoming increasingly difficult to fill. Nick Smallwood, Infrastructure and Projects Authority chief executive recently warned parliament's transport committee of the impact of the shortage on major projects with the recommendation that the government consider offering specialist visas.

NHBC Standards

The latest edition of the NHBC Standards is the 2021 edition. The new Standards apply to all new homes registered with NHBC where the foundations are started on or after 1 January 2021. Key changes to the standards include Chapter 6.1 (External masonry walls), Chapter 7.1 (Flat roofs, terraces and balconies) and Chapter 10.2 (drives, pathways and landscaping). Key changes affecting balconies are in Chapter 7.1 including, more focus on drainage and revised guidance on waterproofing, new guidance on structural deflection, & design, more in-depth guidance on thermal insulation, and amendments to accessible thresholds and upstands.



Resibuild Virtual

Fire Safety in High-rise Residential

11/08/21

With the ever-changing guidance and regulation, what is the **best practice** to designing out fire risk in **high-rise residential buildings?**

What will I learn?

- How will the new regulation addresses shortfalls in previous legislation?
- How can you prepare to comply with the new Building Safety Bill and Regulator?
- What is the best practice to designing our fire risk in the external envelope?
- How can the external envelope & balcony design impact fire safety during occupancy?
- Why is early engagement with manufacturers so critical to improve fire safety?
- How can the industry pivot to place a higher priority on fire safety in the future?

Book Your Place Now

http://resi.build/firerisk

Fire Safety Act 2021: What Does It Mean To Residential Construction?

The Fire Safety Act became law on the 29th April 2021, after an extended battle between the Commons and the Lords. The new law addresses the challenge of combustible cladding on high-rise residential buildings but has left some concerned about whether the expense of remedial works should fall on building owners or leaseholders.

Triggered by the tragic Grenfell Tower fire in 2017, the Fire Safety Act is one of a range of changes made by the government to improve building and fire safety in the UK. The Fire Safety Bill was introduced to update and amend the Regulatory Reform (Fire Safety) Order from 2005 with the aim of making the responsibility for fire safety in multi-occupancy residential buildings clearer.

As a result of the findings in the Hackitt Report, the government have developed two primary items of legislation to meet the challenges raised in the report. The Fire Safety Act deals specifically with fire safety issues while the Building Safety Bill tackles wider safety issues, although the two are closely related and will work in coordination to raise safety standards.

The Fire Safety Act applies to the structure, external walls and any common parts of multi-occupancy residential buildings in England and Wales. It clarifies that references to the external walls in the Order apply to “anything attached to the exterior of those walls (including balconies)”. This means that building managers and owners will be required to include a fire risk assessment for these areas and take measures to reduce the risk of fire spread. If building owners and managers do not, Fire and Rescue Authorities are able to use enforcement powers.

The main sticking point between the House of Lords and the House of Commons was over an amendment from the Lords to include a provision preventing the costs of remedial works being passed to residents. This amendment was ultimately defeated by a vote in the Commons leading campaigners from the End.

Our Cladding Scandal group saying the Act would ruin the lives of leaseholders.

Housing Minister Chris Pincher argued that the Lords’ amendment would risk market uncertainty and lenders unable to value properties. He felt that the planned developer tax and levy would ensure developers pay proportionately.

Earlier in the year the government announced an additional £3.5bn to be added to the existing £1.6bn fund for the removal and replacement of combustible cladding on buildings over 18 metres in England. For buildings under 18 metres residents can access a loan scheme to pay for works.

Experts Guide on the Creation, Delivery & Maintenance of the External Envelope

80 Experts – 1 Book

Bringing together industry experts to provide a holistic overview of key considerations for your residential project's external envelope.

www.resi.build/external-envelope-vision

Scan QR code

Request a copy

Resibuild Events

Fire Safety Throughout the Life of High-rise Buildings

We interviewed Nick Coombe MBE, Deputy Head of Protection Policy and Reform Unit at the National Fire Chiefs Council on fire safety in high-rise buildings.

Before the disaster at Grenfell Tower, the unsafe practices in the built environment including mid- and high-rise buildings had been increasing for years with respect to fire safety. Even with new legislation and the will of developers to design and build safe residential buildings, it will take years to get our industry back to a place of where our buildings are of a high standard that go beyond the minimum regulations.

The Building Safety Regulator

The Building Safety Regulator (BSR) might be the beginning of an answer to this. Although they are starting with a small set of new buildings and gateway processes, they will eventually impact the whole of the industry on how they build in the future. Dame Judith Hackitt said that good and safe practices should be seen through the whole build environment. The BSR will have a big role in continuing to push for improvements in safety on construction sites, including the Golden Thread of accountability and traceability.

The key to all of this coming to fruition is collaboration and the Building Safety Regulator has laid out a framework that it wants to operate in with three gateways:

- sign off in planning,
- Design & concept
- before occupation.

Whether we see these as practical or not, everyone in the industry needs to make sure the new framework is practical and workable.

Collaboration for safety

Collaboration will make sure sites are safe so work can continue. The ‘hard-stop’ that Dame Judith Hackitt mentioned will certainly be challenging. It may be difficult to get everything on a site completely finished and signed off before occupation, but a joined-up approach between developers and regulators will ensure that business models use regulations as a minimum standard, not just something to aspire to.

When it comes to the sale of residential apartments, developers need to sell on points of safety, like they do on other consumer products such as cars and not just how attractive they are. As an industry we need to look to ensuring high standards of safety even without the government having to mandate it – it should be seen as a given.

A change of attitude needs to occur throughout the industry, that includes how we improve buildings. Cladding was too often more about environmental impact rather than safety and changes should be made based on improvement to high quality and safety, not just to not making things worse.

Read the full article here

Nick Coombe MBE also contributed to book overleaf, so make sure to **request your copy**.

Wrapping Up a Quality Street Appeal at Nestle Factory

Hayes Village is a vast redevelopment on the site of the old Nestle factory, featuring Art Deco architectural features and unique balcony designs. Designed by Makower Architects and delivered by Barratt Homes, Hayes Village remains true to the history of the area by preserving key features of the Nestle Factory, from the original façade to subtle details throughout the design.

The historic site is being transformed into a new neighbourhood comprising of 1,386 homes and over 7 acres of green space. After being inaccessible to the public for over a century the development will bring a new lease of life with more than 3 hectares of public space, opening up 300m of the canal and provide at least 500 permanent jobs.

In commemoration of the site's heritage, the iconic Art Deco entrance will be retained, alongside the original staircase and south façade of the main factory building. In homage to this, the balconies on block D featured some unique balustrade detailing giving the external envelope a fittingly unique character.

A key challenge at Nestle Factory Block D was ensuring the balcony design fit with the wider aesthetic of the scheme, while remaining within budget and keeping on site labour to a minimum. Our Glide-On™ balconies were chosen thanks to their quick and easy install and design flexibility.

The balconies at Block D featured a combination of laminate glass, solid panel and vertical bar balustrades giving each apartment a unique feel. The laminate glass balustrades included patterned designs intended to compliment the art deco design of the factory building. Some of the glass balconies featured a chevron pattern while others combined solid panels with patterned glass with an overlapping circular design. Further, some balconies included three different panels for the balustrades, one solid panel, one clear laminate glass and another with vertical bars.

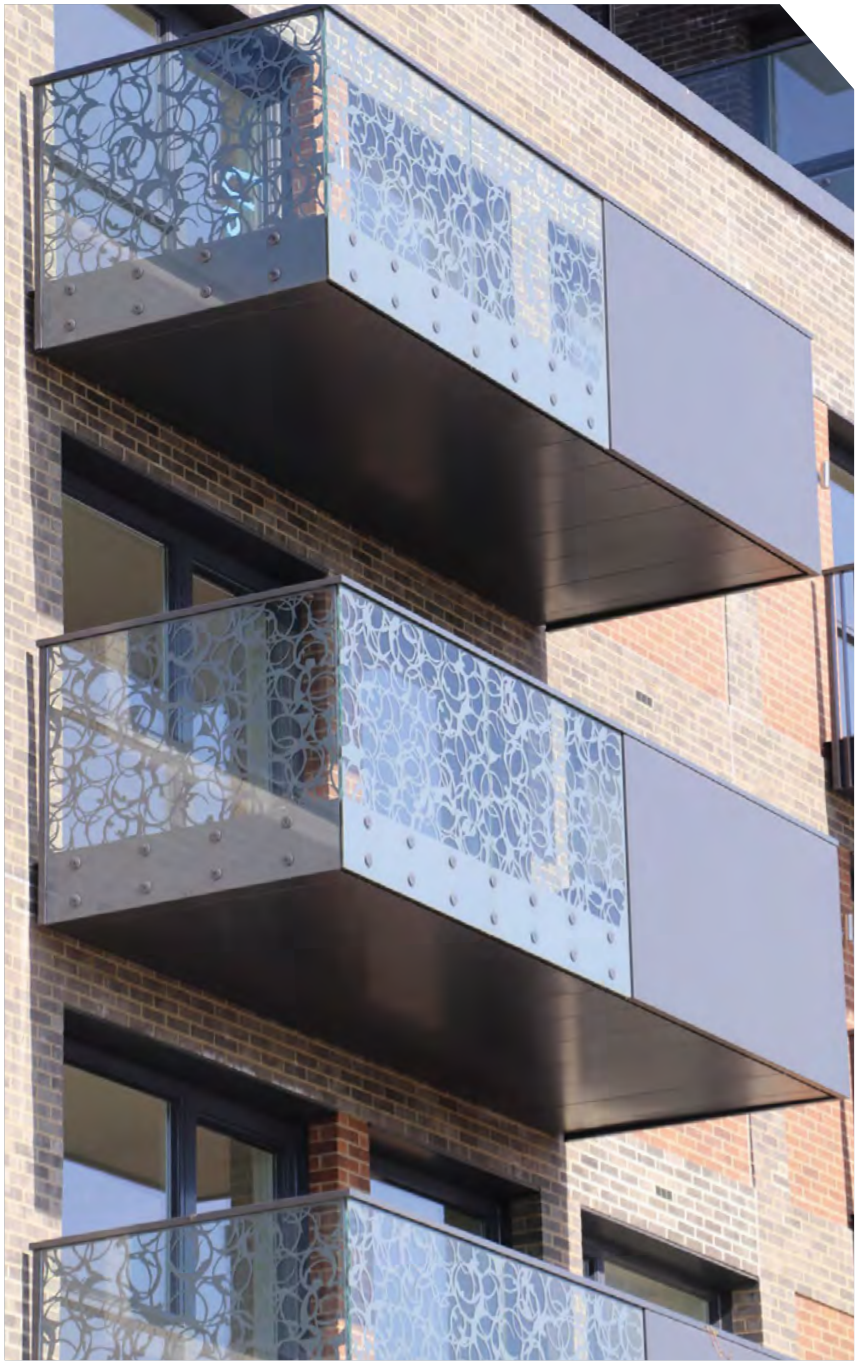
Not only did these varied balustrade designs highlight the character of the project, they also provide residents with

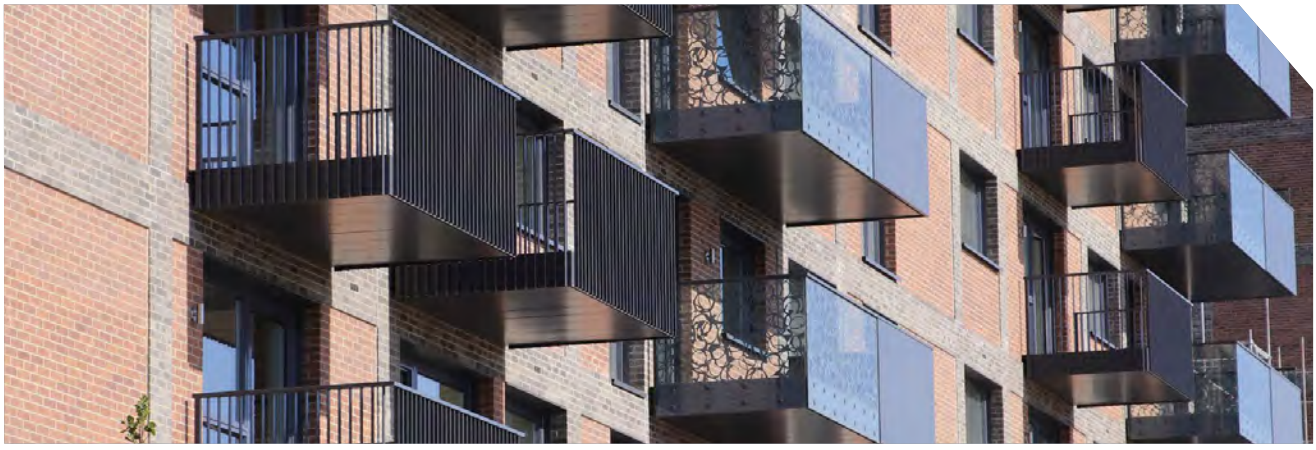
exceptional privacy and shelter from the elements. As a further point of design complexity, the balconies also featured a continuous handrail along all three types of balustrade for a seamless finish. These intricacies were made possible by our exceptional levels of quality control and offsite production. Each balcony was manufactured and prefinished offsite, before being placed into secure storage ready to be called, when needed, for installation on site.

The future residents have been carefully considered throughout the design process at Nestle Factory, from electric vehicle charging points to 2000 cycle spaces and extensive communal landscaping. Other amenities include a gym, community space, coffee shop and canteen.

Key Stats

Architect:	**Makower Architects**
Contractor:	**Barratt Homes**
Balconies:	**124 Cassettes®**
Storeys:	**10**
Location:	**Hayes, West London**





Ask The Expert

Lee Goodenough

Lee is Head of Sales and Commercial at Sapphire and looks after customers from early tender stage to contract signing, with a keen eye on developing long-lasting relationships. Lee guides clients in finding the best balcony solutions for their requirements with an emphasis on building longevity and simplicity on site.

Since December 2020, the price of aluminium and steel has grown exponentially. The rise has had significant knock-on effects in the construction industry, which has been the brunt of decisions which prioritise other industries for these materials. This, coupled with a skilled labour shortage have led to the industry flat-line.

Lee Goodenough discusses how the construction industry can collaborate to lessen the impact of skills and materials shortage.

Q: The recent price rise of materials and the significant skills shortage in the industry is having a huge impact on construction. How can the industry combat this?

A: The skills shortage has been felt for some time now and many feared the implications of Brexit on the labour market. Off-site manufacture and MMC provide many benefits, so even before these issues arose, these tools provided a way to mitigate the problem of skills shortage. For Sapphire, our innovation and standardisation of balconies and balcony products reduces the need for labour onsite, a saving that passes benefits onto the customer.

Q: The lack of materials is impacting many businesses around the globe, yet priorities are often given to other industries. Why?

A: There are many for geopolitical reasons for this. One was that, as we come out of the pandemic, the manufacture of white goods and cars will increase. These industries have a greater influence through their associations, which construction doesn't have. Steps need to be made to create that single strong voice to protect everyone's interests.

Q: The topic of competency is covered in The Hackitt Report. With the skills shortage facing the industry, how can we ensure a high level of competency and productivity?

A: Problems of poor productivity, lack of materials and skilled labour can be solved with the adoption of the DFMA's methodologies. Encouraging standardisation and early engagement with specialist contractors will lead to effective forecasting in use of materials, workload and help to overcome complex designs.

Standardisation has a reputation for being restrictive, but it also lends itself easily to rationalisation – learning from previous designs and applying improvements to future designs. These improvements can often mean a large saving, which can be passed on to the customer. Not only that, an architect's design may only need a few adjustments to fit with a standardised product, allowing for unique features to remain in the design.

Q: What is Sapphire's design approach to skills and materials shortage?

A: Having an unlimited amount of designs to fit with any building comes with time, labour and cost implications. Early engagement is important to establish key principles from the start. Tools like COACH, our online configurator, enables architects to see the ramifications of different design choices in real time so they can make the best choices for their project.

COACH allows architects to design balconies for their project faster than traditional approaches, while maintaining their unique vision. It offers choices on cost and design elements within buildable design parameters.

Openness and preparedness to share best practice across construction will enable the industry to improve its practices as well as mitigate any further issues with skills and materials shortages in the future.

Try COACH today!
www.sapphire.eu.com/coach

Knocking It Out of the Park at The Madison, E01/E02 Wembley

The Madison, Eastlands E01 & E02, is one phase of a substantial development of Wembley Park surrounding Wembley Stadium. Given the project's location the site had strict procedures in place for deliveries, maintaining a high level of security. Sapphire's offsite manufactured modular balconies were essential to maintaining the project programme and avoiding costly delays.

Wembley Park is an 85-acre development by Quintain comprising of an astounding 8,400 new homes, a 7-acre park and extensive office and retail space totalling 8.8 million sq ft. Wembley Park is set to be an exceptional place to live with bustling shops and venues and, of course, the stadium right on the doorstep. Block E01 & E02 was constructed by Wates and designed by PRP Architects.

The Madison's central location meant limited storage space on site so offsite manufactured modular balconies were essential. Working closely with the site team our logistics team were able to coordinate deliveries to arrive just as they were needed, which were then installed quickly and easily. Delivery slots were booked in advance in order access the holding area to maintain the exceptional levels of site security at Eastlands. This meant there was no time for delays en route to Wembley as our logistics team remained in close contact with drivers and site teams throughout.

One of the ways the logistics and design team worked together to ensure smooth deliveries to site was by redesigning our double stacking trailers. These in addition to our 'nesting' techniques allows for fewer deliveries to site and drastically cuts emissions. With deliveries of balconies daily the project manager was impressed by the volume which were delivered in "a short space of time".

The Madison, Eastlands E01/02 required agility in both production and install due to the tumultuous time the nation faced while

the project was ongoing. The majority of the balconies were fitted during the height of the COVID-19 lockdowns while many of the nation's projects ground to a halt. Although some other companies on site were called off due to social distancing restrictions, the install of our Glide-On™ balconies continued due to the ease of the system.

Through a system of close coordination between our logistics team and the installers on site all 610 balconies were installed quickly and safely. Our accredited installers Steelbuild maintained exceptionally high standards of safety on site with rigorous COVID checks of all staff. Their standards were so high they won the Wates supply chain award for Health, Safety and Wellbeing for their work at The Madison.

The decking chosen for the balconies was upgraded to the MyDek Vista range which was changed without difficulty due to our nimble offsite manufacturing and storage facilities. Our offsite manufacturing method also allows for exceptional QA standards, guaranteed by our Rigid.Ready.Right. brand promise, the project manager commented "everyone raves about the quality".

The project manager went on to describe Sapphire as "a reliable balcony provider with a quick easy install who will make the job safer and quicker".

Key Stats

Architect:	**PRP Architects**
Contractor:	**Wates**
Balconies:	**610**
Storeys:	**16**
Location:	**Wembley, London**

Resibuild Events in Q2

This quarter we tackled two major topics on the minds of many industry professionals, fire safety and sustainability. In April we discussed how fire safety might change over the coming years and in May, we tackled Construction's Carbon Dilemma.

Unlock the recordings of all past events and sign up to attend those upcoming for free at www.resi.build.

How might fire safety change construction in the next few years? - 14th April

We saw the digitalisation of the fateful Grenfell Tower fire, which brought to light major issues related to fire safety in the construction industry. Since then, the government has been relentlessly trying to find out the existing fire risks in the industry and deal with them, along with strengthening the current building regulations to ensure the highest level of fire safety standards to prevent future mishaps and increase safety and efficiency in the industry.

At this event our panel included Nick Coombe of the National Fire Chiefs Council, Chris Taylor of WSP, Scott Sanderson of PRP LLP, Valentina Amoroso of Eckersley O'Callaghan, and Andrew Taylor of ASFP.

The panel discussed the future of fire safety, anticipated regulation changes and the practical steps the industry may take to meet this challenge. They discussed topics from The Building Risk Review, the obstacles to improved fire safety, the ban on laminate glass and how sustainability efforts can play a role.

Access the recording **on demand.**

Construction's Carbon Dilemma: Why, When & How

Construction's Carbon Dilemma: Why, When & How? - 26th May

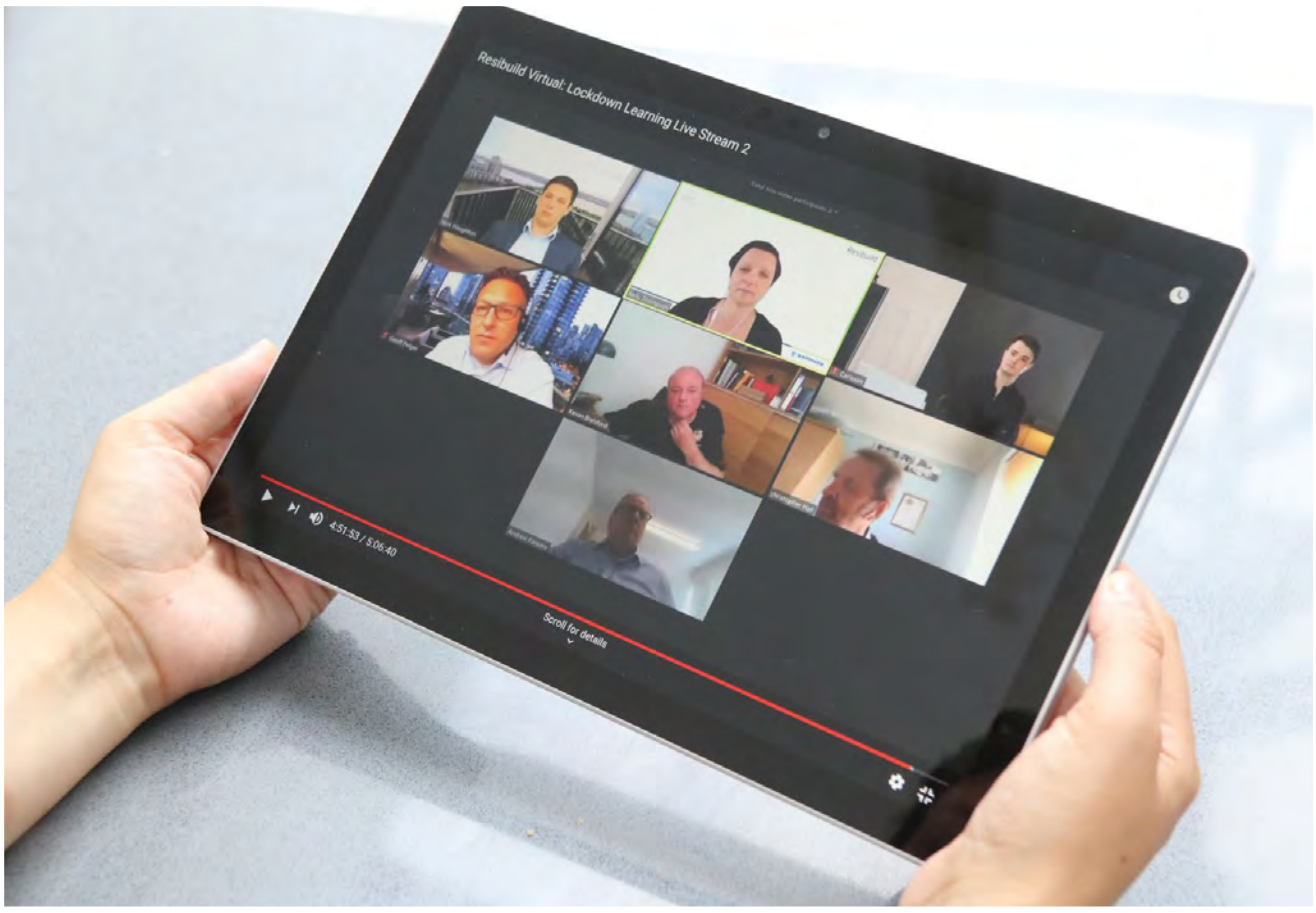
The environment we are facing today means that the way we see homes, and the role they play in our everyday lives, is forever changing.

The UK Government has set out to achieve an 80% reduction in greenhouse emissions by 2050. It is estimated that 25% of carbon emissions come from homes and a further 17% from non-domestic buildings, so a decision was made to improve energy efficiency in every household.

Our multinational industry panel included Syeda Zainab of Wates, Hamid Vossoughi of WSP Canada, Lukas Thiel of White Arkitecter, Amir Hassan of EXP, Dr Rochelle Ade the Green Building Whistleblower and others.

The panel explored construction material selection and embodied carbon, concerns around high carbon emissions caused from thermal bridging and uncovered differing perspectives on energy efficient buildings. The panel concluded by discussing current blockers in the industry and need to have better regulation and targets globally.

Access the recording **on demand.**



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The Recommendations of BS 8579 on Reducing High-Rise Fire Risk

Fire safety is a critical consideration when specifying balconies for today's high-rise residential buildings. Published in 2020, BS 8579 provides a clearer definition between balconies and terraces, which is important as regulations refer to them separately. It also makes a clear distinction between open and enclosed balconies, previously stated by BS 9991 (relating to fire safety in residential buildings). If the facing enclosure is over 50% of the relevant height it becomes classified as an enclosed balcony. Enclosed balconies are, by definition, an internal room, adding to the distance that any person needs to escape in the event of a fire. BS 8579 also gives guidance regarding the proximity of balconies, fire resistance and reactions to fires. For example, where enclosed balconies are stacked the need for fire-separating floors and walls is triggered.

Laminate glass

BS 8579 recommends non-combustible material on all balconies in accordance with the 2018 combustible cladding ban. Specifying laminate glass in balcony balustrades is currently banned over 18m due to the combustible cladding ban, as the interlayer is combustible. However, many view laminate glass as a safer alternative to monolithic glass due to the safety risks in the event of broken panels.

While monolithic glass leaves a void and allows particles to fall from the balcony, the interlayer in laminate glass typically contains the fragments and preserves the barrier until the panel can be replaced.

This debate has driven us to undertake extensive research into the testing of laminate glass products in isolation, and in full balcony scenarios, and our findings form part of a whitepaper to analyse this critical point and provide clarity for the industry.

Soffits

BS 8579 recommends that all balconies should include drainage and suggesting soffits be included in the design. The inclusion of soffits in balcony design not only provides a sleek finish to the balcony structure but also assists in limiting the spread of a balcony fire. Furthermore, aluminium soffits have been shown in practice to reduce the possibility of rising or falling embers affecting balconies above and below a fire.

Reducing Fire Risk

Balcony fires often begin because of accidents like overturned barbecues or cigarettes landing on combustible furniture. While such accidents can be minimised through education, the regulations require that all necessary precautions be made to limit fire spread at the design stage.

Download a copy of our Fire Safety Whitepaper

Sapphire Accredited

Steelbuild are Sapphire Accredited installers. Find out more at www.sapphire.eu.com/sapphire-accredited

STEELBUILD

"There is no Standard but the Steel Build Standard"

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4 years on from Grenfell

The tragic Grenfell Tower fire shocked the nation and brought into focus how much change the industry needed to commit to. Many residents continue to live in fear, worry and uncertainty as they feel the regulatory changes do not address current challenges, go far enough in guidance, do enough in funding or enforcing improvements.

Four years on, how much have the regulations, guidance and practices of the residential construction industry changed?

Changes to Approved Document B (AD B)

Approved Document B addresses fire safety. Recent changes to the document include improvements to preventing fire spread and measures that aim to increase the safety of occupants, firefighters and those close to the building in the event of a fire.

In 2018, amendments made to AD B "require that materials in external wall systems and balconies have a minimum performance of class A2-s1, d0 or A1 under the relevant European classification system set out in BS EN13501-1." The changes came into force on 21st December 2018. The Approved Document has also since been updated with amendments in 2019 and 2020.

Advice Notes from MHCLG

The MHCLG has issued various advice notes regarding fire safety since Grenfell. The January 2020 consolidated advice note states "Particular attention should be paid to any risk of fire spread from balconies and other attachments containing combustible materials".

This consolidated note brings the Expert Panel's advice together in a single document and supersedes the existing Advice Notes 1 to 22.

Fire Safety Act & Building Safety Bill

The Fire Safety Act became law on the 29th April (read more on p.7) and the Building Safety Bill is expected to pass later this year. Both pieces of legislation, once passed, will deliver some of the recommendations of the Hackitt Report. The Building Safety Bill tackles wider safety concerns while establishing methods of improved fire safety.

BS 8579:2020 Guide to the design of balconies and terraces

Published in August 2020 BS 8579 provides a clearer definition between balconies and terraces, which is important as regulations often refer to them separately. Read more on p.19.

The London Plan

The most recent Plan was amended in 2019 and runs to 2041.

Part B of Building Regulations covers fire safety compliance, and the London Plan runs alongside this. It states all planning proposals in London must "create a safe and secure environment which is resilient to the impact of emergencies including fire and terrorism". Policy D12 in the plan focusses on fire safety specifically.

Conclusion

Significant changes have been made to the regulations, standards, requirements and guidance to improve the safety of residents, reduce fire risk and fire spread. While considerable change has been made, there is much yet to happen and many in the industry still feel these changes don't go far enough. With resident wellbeing at the heart of building design, these improvements are just the beginning of a lifelong commitment to improved fire safety.

This article is abridged, **read** the full article here.

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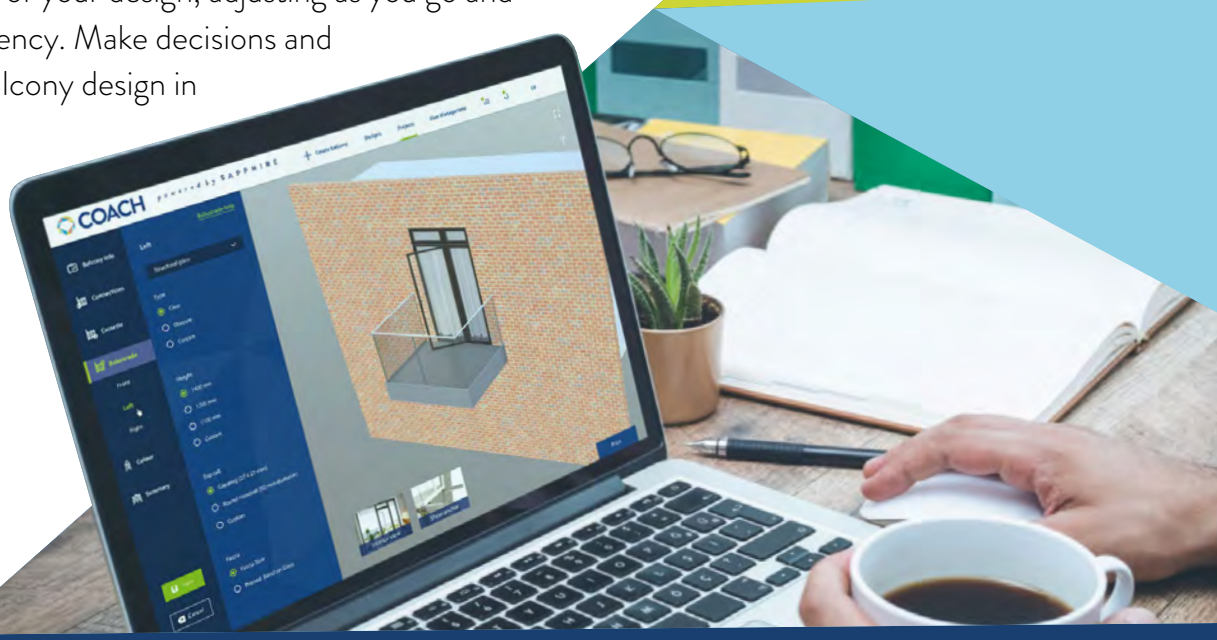

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Creating a Firestop Health Check

How do you know if the fire seal you are looking at on site is fit for purpose? It is not a comfortable feeling when you consider that these seals are essential to life safety. We interviewed Duncan Alabaster, Technical Manager at Polyseam to find out more.

The 'Firestop Health Check' gives designers, builders, building maintenance and other responsible persons a basic four stage template of key points to consider with penetration seal design when assessing the suitability of a firestop. The check list based on firestop systems which have either CE marked or UKCA (United Kingdom Conformity Assessed) approvals.

Construction of the walls and floors

The first thing that needs to be established is the construction of the fire compartment wall or floor that services are passing. The service penetration seal testing standard EN1366-3, specifies a number of standard wall and floor constructions with specific fire resistances.

Separation distances

The second area to focus on is the size of the aperture around the penetration. This is likely to influence the type of firestop that you can use to fill the void around the penetration and enable the installer to install a sufficient depth of seal.

With larger apertures (greater than 30mm wide) in walls, you will need to use a product like a Protecta FR Board, which is cut around the service and adhered together and to the wall with Protecta FR Acrylic Intumescent Sealant. For smaller annular spaces (10-30mm wide), you may need to use Protecta FR Acrylic Intumescent Sealant with an appropriate backing material.

Service types passing through compartment walls and floors

The third factor to consider are what services pass through the aperture and whether they are single or multiple services. The European Technical Assessment (ETA) for a product will determine the maximum percentage fill of an aperture with multi-service penetrations

Service support centres

Lastly, it is important to ensure that the first service support away from both faces of the walls and from the top of concrete floors, sits within the maximum distance stated in the approval.

Read the in-depth article on creating firestop heath check.

FREE fire white paper

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