# building construction design

## **WINTER 2025**

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Cover image: Stella Rooflight See page 09 for details

# How innovation is transforming pumping stations







In a constantly evolving, competitive, and challenging world, where accountability and reducing risk is the cornerstone for the future of the construction industry, Delta Membrane Systems Limited launches the innovative HLA Plus and HLA Plus Intelligent.

The Delta HLA Plus is a sleek, reliable, advanced, monitoring high-water level alarm capable of delivering real-time notification services for pumping stations. Detecting critical alarm conditions immediately – enabling instant action.

The HLA Plus has a clear goal, to keep buildings and structures safe by providing live performance data on all pump station activities. Promoting a culture of responsibility, where commitment is achieved, and risk is mitigated and reduced.

The Delta HLA Plus is a smart device, suitable for groundwater, surface, and foul water pumping stations.

The Delta HLA Plus is smart technology which has both proactive and preventive functions. Putting property owners and/or facilities managers in control. Any pumping station fitted with a Delta HLA Plus device can benefit from a range of features that keep pumps running at peak performance – maximum protection and benefits.

The Delta HLA Plus will give key users access to real-time analysis of their pumping

stations enabling service, maintenance, or repair requirements to be detected and implemented at the earliest opportunity.

With a simple dashboard and a host of features to help protect pumping stations, the Delta Pumps App offers peace of mind at the touch of a button. Always know what's happening with your pumping station, day, or night. Know what's activating as it happens. With no subscription fees and big on features, the Delta HLA Plus can connect to any new or existing pumping station – offering protection where it's needed most.

Smart home solutions have transformed lifestyles, from Alexa to Ring. Smart technology is changing our lives – it is also an opportunity to change and improve industry. The Delta HLA Plus is smart construction technology which is used to monitor the performance of pumping stations in realtime and provide detailed analytics that assist people to make informed decisions, accurate planning for maintenance, minimising delays and reducing cost.

Kevin Dodds, managing director at Delta Membrane Systems Ltd, a strategic basement waterproofing thought leader, uncovers how digitising and operationalising maintenance of equipment can improve reliability and efficiency of Type C, cavity drain waterproofing systems and optimise end-toend value chains:

"Predictive maintenance is one such solution that helps lower operating and maintenance costs by facilitating proactive servicing and repair of assets, while allowing the more efficient use of repair resources. Delta's HLA Plus delivers innovative software that maximizing customer value to streamlining servicing and boosting efficiency, both Delta's clients and our customer's clients can make better decisions and avoid costly repairs should their property be empty at the time a visual or sound alarm occurs. The unfortunate truth is, that home emergencies do happen. Even those who prepare for worst case scenario, such as high-water levels in basements, may still suffer catastrophic losses in the event of a flooded basement. These types of emergencies devastate homes, individuals, and families. A flooded basement is often called a disaster for a reason. The structural integrity of a basement can be severely damaged, leaving it uninhabitable. The Delta HLA Plus reduces the risk of these disasters occurring, especially if a property is not occupied at the time of emergency."

Whatever the needs of your project, you can rely on Delta's Technical Team to ensure you get the right advice, support, and practical help at exactly the right time its required.

01992 523 523 info@deltamembranes.com



### **NEWS FEATURE**

# A case for tiles

Tiled surfaces offer enormous aesthetic and practical opportunities for building designers. Product innovation and regulatory advances ensure that this product sector remains dynamic and exciting, meaning that specifiers need to be aware of the technical issues around tiling.

On many projects, tiles remain the best option for finishing walls and floors. If tiling is carried out correctly, it can last a lifetime. You can't say that about many of the alternatives. Consider for example, the tiling in London's underground stations, some of which goes back to the Victorian era.

In terms of functionality, ease of cleaning, durability and timeless aesthetic design, tiles just cannot be beaten.

New technical developments are adding even more versatility to tiled surfaces. One of the latest design trends is the move towards large format tiles. These are an architect's dream, as they minimise the presence of grout lines and allow the design of the tile to be fully maximised and appreciated.

The arrival on the market of the new generation of large format tiles and panels is now accompanied by new digital printing technology. This can give the tiles the appearance of natural stone, and there are many other new design opportunities.

However it is important to understand the technical aspects of tile installation, particularly when it comes to adhesives. The correct adhesive should be used for each application, and the substrate should also be considered. For example skimmed plaster walls can only accommodate 20 kg of weight and bespoke tile backer boards are by far the preferable type of substrate to use. When fixing large format tiles at height (or any tiles above 3 metres), British Standards specify that mechanical fixing systems should be used.

A further example that we still come across very regularly is that of anhydrite screeds. Although they have been around for nearly 40 years, and are popular with specifiers because of the speed with which they can be poured and their sustainability credentials, they do have a downside, namely that curing times can be very much extended compared to sand:cement screeds.

There are solutions on the market, such as Palace's own Pro Gyp-Base, which provides a sealing system to enable earlier application of tiled finishes, fixed with cement based adhesives.

These topics and more are covered in RIBA-approved CPD presentations, such as the one we have introduced this year, and I would urge any architects working with tiles to familiarise themselves with these resources.

Supplied by Nick Bratt, national technical sales manager for Palace Chemicals



# BUILDING INSIGHTS

A PODCAST FOR THE CONSTRUCTION INDUSTRY

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## **HMG's guide to coatings for Sports Venues**

**H**MG Paints has launched the first of a series of brochures to help professional applicators, merchants and facilities owners in key sectors zero in on the range of products most suited to the specific job in hand.

The Sports Venue Coating Guide sets out the suite of specialist coatings and treatments for tackling a full range of tasks.

"HMG has over 4,000 products and the guides will make it easier to navigate straight to the tried and tested coatings for use in key sectors," explains HMG Paints' James Burton.

The Sports Venues guide spotlights a suite of 13 paints or treatments that cover interior and exterior usage, high to low traffic areas, and a wide range of substrates from concrete and timber to metals and plastics, and the most economical yet effective manner in which to tackle rust spots.

The guide covers details of decorative coatings, floor coatings, cladding and structural paints and a wealth of colour and technical information.

HMG Paints is a leading independent



paints manufacturer in the UK and its products have been chosen for sporting facilities ranging from modest local halls to Olympic stadiums, they truly are one name that covers everything.

For example The Stoop in Twickenham is beneath the busy flightpath into Heathrow and air passengers have no trouble spotting the name of the stadium's sponsor, emblazoned on the roof of one of the stands with an HMG coating.

As a technical supplier to Aston Martin Racing, HMG Paints has supplied coating for the cars themselves as well as pits and corporate areas. The companies coatings were also used for Prodrive's 111,550 ft<sup>2</sup> headquarters in Banbury, Oxfordshire, UK. The facility houses Prodrive's motorsport, advanced technology, and manufacturing operations under one roof and is home to some of the most iconic racing cars in motorsport history.

Bright branding and clear colour schemes are an important aspect of modern sport and HMG Paints can match all their products to the client's club colours or livery. The firm has the biggest colour archive in the industry with RAL, BS, NCS and Pantone shades plus a colour matching service.

In addition to sports venues the suite of products is suited to any large public arena or major commercial development.

0161 205 7631 shop.hmgpaint.com



# BUILDING IN CONFIDENCE

Peter Richardson of Build-Zone provides insight into structural defects insurance policies – including what they cover, and which features developers should focus on when choosing warranties for new housing developments.



**H** ven with the best care and due diligence, building houses can be complex, and sometimes things go wrong. For developers and housebuilders, the key objective for selling newly built houses is to achieve the best financial return. This is made possible by building and completing high-quality homes that meet the specified requirements, stay within budget, and adhere to the project timeline. Put simply, the housing stock released onto the property market must be premium, finished to a high standard and supported by minimum 10 year structural defects insurance policies.

Structural defects insurance policies are sometimes referred to as inherent or latent defects insurance. They are designed to protect homeowners in new build housing developments from structural defects in design, quality and materials. They provide peace of mind and offer financial protection if there are significant issues with the structural integrity of the properties.

When housebuilders and developers

## EVEN THOUGH A NEW HOME WARRANTY ISN'T REQUIRED BY LAW, MOST LENDERS INSIST ON THIS TYPE OF COVER

sell newly built houses on the open market, they will require a structural defects insurance policy to comply with a mortgage lender's requirements. The provider must be approved by UK lenders to sell the property upon completion. Even though a new home warranty isn't required by law, most mortgage lenders insist this type of cover on the build is mandatory when considering lending to potential homeowners, meaning they won't provide a mortgage until the developer has acquired inherent latent defects insurance cover.

With the right policy, buyers can be confident knowing the properties are

protected against potentially costly inherent latent defects. Most providers will send surveyors and technical auditors to site to assess the structures and building works at crucial points during the construction period. This reduces the risk of things being missed that could lead to the development of latent structural defects. It is, therefore, essential to understand what is covered under any given policy before signing up, as not all policies are equal. This can help find the right structural defects insurance policy to protect a new build housing property portfolio.

Once properties are built, the latent structural defects policy is usually split into two periods:

- Builder Inherent Defects Liability Period: 0-2 years
- During this phase, the builder or developer is responsible for correcting any problems caused by any physical damage or defect from faulty workmanship or materials.

Structural Defects Insurance Period: Three to 10 years

During the structural defects insurance period, developers are responsible for major structural problems such as load-bearing floors/walls, foundations, the roof structure, ceilings and chimneys.

## WHAT IS COVERED UNDER STRUCTURAL DEFECTS INSURANCE?

Generally, these insurance policies cover structural defects due to defective design, materials or quality. These can be issues related to poor ground conditions, damage caused by incorrect or poor-standard construction methods and the cost of correcting or remedying faulty construction.

Features to consider when choosing a structural defects insurance provider for new build housing developments built for residential sale:

- 10 year residential development structural defects insurance policy, backed by financially secure A-rated insurers
- Part of a Consumer Code
- Accepted by the majority of lenders in the UK and an associate of UK Finance
- Fast quotation turnaround

- Quick response from professional, nationwide technical auditing or survey service
- Flexible payment method
- Full risk transfer in years three to 10 of cover
- Cover as standard for alternative accommodation, additional costs, debris removal, and professional fees.

### **BUILD TO RENT SCHEMES**

Other types of cover include inherent/ latent defects policies for Build to Rent Schemes. Many house developers are choosing to expand their offerings into the Build to Rent (BtR) sector, contributing to the increasing number of opportunities emerging in key cities across the UK. BtR involves the creation of residential properties expressly for rent and not for sale to individual homeowners. Structural defects insurance for BtR schemes works slightly differently from new homes built for residential sales as there is no lender requirement or code of conduct.

As this sector grows and evolves, Build to Rent is poised to become a key player in meeting the UK's housing requirements and defining the future of renting.

Features to consider when choosing a structural defects insurance provider for Build to Rent developments include:

- Long-term 'A' rated insurer capacity
- Single structure limits available in excess of £300m
- Cover offered on a Full Value Reinstatement Basis, with no inner financial limits
- 10 or 12 year policy period
- Loss of rent cover
- Each project is individually underwritten and technically appraised, meaning that there is no technical manual to adhere to – giving you greater creativity in the scheme's design
- An in-house technical team and independent auditors will provide input and advice from the design stage to practical completion.

Structural defects insurance policies provide security and protection against structural defects and enhance a developer's reputation by demonstrating a commitment to quality and customer care. Housing developers can ensure projects are risk-averse, compliant, and appealing to modern homebuyers and investors, especially when selecting an A-rated specialist structural defects insurance provider.

Peter Richardson is managing director of Build-Zone

## CCF passes CCPI Assessment for Merchants and Distributors

Ationwide distributor of insulation and interior building products CCF has passed the Code for Construction Product Information (CCPI) Assessment for Merchants and Distributors.

The CCPI was created in response to the Grenfell Tower tragedy and the construction industry's subsequent need to improve the way product information is managed and communicated. The CCPI aims to raise standards in the management, marketing and advertising of product information and facilitate a culture of transparency, with specific criteria for best practice set out for manufacturers, merchants and distributors.

CCF was assessed and found to have the necessary product information processes and systems in place to uphold the CCPI, and that the company is committed to diligently adhering to the CCPI and to proactively promoting and supporting the adoption of the CCPI with its suppliers. The CCPI Mark for Merchants and Distributors does not indicate that any particular product information conforms with the CCPI or constitutes any statement as to a product's compliance with any standards of quality or safety.

As part of the CCPI Assessment for Merchants and Distributors, CCF also had to demonstrate that its employees are fully supported and aware of what needs to be done to continuously



improve product information and to keep the distributor's product information up-to-date and unambiguous.

CCPI assessment requires a commitment to continuous improvement and looking ahead, CCF will be regularly reviewing its internal processes and how the company works with its manufacturing partners to raise standards in the information the distributor shares with its customers.

Commenting, CCF's managing director Catherine Gibson said: "Through collaboration within CCF's different internal departments, headed up by our product category, technical and marketing teams, and by providing relevant colleague training, we are now in an even stronger position to support our customers with reliable product information to help them select the right products for their projects.

"We are proud to have passed the CCPI Assessment for Merchants and Distributors and as an organisation, we are committed to proactively working with the CCPI to raise standards in product information and continuously improve the product information we supply."

For more information about CCF's products and services, please visit the website.

technicalteam@ccfltd.co.uk www.ccfltd.co.uk



## Fire Protection • Sound Absorption • Thermal Insulation



- Sound & Thermal Insulation
- Thin & Lightweight
- Easy to Cut & Install

**NEW PRODUCT** 

**A1** Certified

Render/Plaster Board

Available in 20, 50 & 100mm. Use on masonry, wooden or metal structures!



T: 01634 835290

## Let the Spruce Loose

Data shows that timber and timber-based panels have become the fastest-growing categories in contemporary construction, particularly in the offsite and modular niche. Whether it's walls, floors or ceilings, recent, proprietary research we conducted showed these products are predicted to make up a massive proportion of the materials used in a market forecast to grow to £1.2bn by 2028.

European-sourced plywood is particularly popular, and demand is only set to increase as the use of MMC for commercial, residential, and public buildings becomes more prolific.

However, as the last two years have shown, not all plywood is manufactured equal, with counterfeit, poor-quality or embargoed panel products flooding the market in the wake of the Russia-Ukraine conflict. Indeed, accusations of sub-standard units have also been a recent sore point within the modular sector with a number of high-profile developments called out over their structural integrity. Both situations have seriously dented investor, trade, and customer confidence.

Fortunately, these twin issues can be addressed by working with responsible, ethical supply chain partners dedicated to the combined values of safety, security, and sustainability. UPM WISA is one such brand, and its WISA-Spruce Special, a catalyst for a global renaissance in plywood is set to support another for offsite construction.

Sourced and made from responsibly managed, sustainable forests in Finland, WISA-Spruce Special is on a mission to set a new standard within the timber panels market. Its reputation as a high-spec, yet competitively priced product, is an instant mark of quality in any build in which it's used.

It's looking to develop this further for the Offsite sector, working in collaboration with James Latham to showcase its unique attributes and why we're one of their key distributors in the UK and Ireland.

So what makes WISA-Spruce Special so wellsuited to offsite construction? Let's take a look...

- Structurally robust, suitable for loadbearing applications
- Dimensionally consistent, providing all-important repeatability in an offsite



manufacturing process

Possesses up-to-date EPDs and certification from globally recognised sustainable and responsible forest management certification schemes, supporting developers looking to achieve much-coveted certifications like LEED and BREEAM for projects.

Ultra-sustainable through use of WISA® BioBond adhesive; replacing 50% of standard glue's fossil-based phenol with lignin, timber's inherent bonding agent reduces the overall carbon footprint by approximately 10%, without compromising technical performance or visual appeal.



Offsite developers also need to know they can rely on there being healthy stock levels, especially for large-scale developments. Well, we've got you covered, with WISA-Spruce Special available nationwide throughout our 12 strategically-located depot, plus a direct-from-port option for bulk loads, and dedicated technical experts to advise on almost any requirement, regardless of scale and scope.

And, with the ability to call off large quantities at short notice, you'll achieve the all-important peace of mind you can keep your lines running to deliver on short-lead demand increases.

That's not all, it's also available from James Latham in a Euroclass B FR variant, Wisa Spruce FR.

As you can see, when you order WISA-Spruce Special through James Latham, you get the full package, from great product through to great customer service, wherever, whenever.

At a time when the modular sector is facing scrutiny regarding quality control issues, knowing you're working with a panel that ticks all the compliance boxes provides essential peace of mind. Not only that, it will give clients, investors, shareholders, and occupants assurance you are dedicated to delivering safe, secure, and sustainable buildings.

Ultimately, WISA-Spruce Special is a product that adds value at every level, setting a new standard for sustainable plywood and supporting a new golden age of MMC.

### marketing@lathams.co.uk

www.lathamtimber.co.uk/products/panels/ plywood/softwood-plywood/wisa-spruce-special

# **Embracing nature's light**

Paul Trace from Stella Rooflight discusses the importance of effectively introducing the biophilic benefits of natural light into the home.

n an era marked by technological advancements and urbanisation, the longing for a connection with nature has never been stronger. Biophilic design, a concept rooted in the idea of incorporating natural elements into built environments, offers a promising solution to bridge this gap. One key element of biophilic design that holds immense potential for enhancing wellbeing, health, and productivity is natural daylight. As the trend of home working gains popularity, the significance of natural daylight in home design becomes even more pronounced.

### THE RISE OF BIOPHILIC DESIGN

Biophilic design is an innovative approach that draws inspiration from nature and aims to create spaces that foster a sense of harmony and balance between the built environment and the natural world. This design philosophy recognises the innate human inclination to connect with nature and seeks to harness its benefits for individuals' physical, emotional, and mental wellbeing.

The notion that access to green outdoor spaces and naturally bright indoor environments, improves wellbeing and productivity is not a new concept. During the 19th century industrial era, wealthy factory and mill owners would create parks to ensure their workforce had access to clean fresh air and places to relax when not working. This idea has evolved into the post-industrial age. Today, this relationship between humans and nature, and understanding of the essential human need to connect to a natural environment in the workplace is being taken increasingly seriously by architects, developers and housebuilders, and is described by the phrase 'biophilic design' or 'biophilia,' the practice of incorporating nature into the built environment.

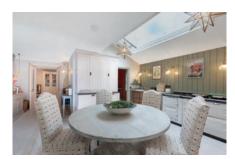
### THE INFLUENCE OF NATURAL DAYLIGHT

Among the various biophilic design elements, natural daylight is arguably one of the most influential. The introduction of natural light into a living



or working space has far-reaching effects on occupants' overall health, productivity, and mood. Researchers have found several compelling reasons to prioritise natural daylight in home design:

Improved wellbeing: Exposure to natural light has been linked to enhanced mood and reduced feelings of stress and anxiety. Sunlight triggers the release of serotonin in the brain, which contributes to feelings of happiness and wellbeing. Homes that receive ample natural daylight offer a healthier and more uplifting environment for their inhabitants.



- Enhanced health: Natural daylight exposure plays a crucial role in regulating the body's circadian rhythm, which governs our sleepwake cycle. A well-regulated circadian rhythm is associated with better sleep quality, increased energy levels, and improved immune function. By incorporating natural daylight into home design, occupants can enjoy a more balanced and healthy lifestyle.
  Boosted productivity: For individuals working from home, the impact
  - Working from nome, the impact of natural daylight on productivity cannot be underestimated. Research indicates that exposure to daylight in workspaces can result in higher productivity levels, increased focus, and reduced instances of eye strain and headaches. A well-lit home office that embraces natural light can create a more conducive environment for efficient and creative work.

### THE RISE OF HOME WORKING

The concept of working from home has undergone a seismic shift in recent years. The global pandemic significantly accelerated this trend, compelling countless individuals to transform their living spaces into productive work environments. With home offices becoming more common, the importance of optimising these spaces for health and productivity has never been greater.

### DESIGNING HOME WORKSPACES ENHANCED BY NATURAL LIGHT

Integrating natural daylight into home workspaces requires thoughtful planning and design. Here are some practical tips for maximising the benefits of natural light in your home office:

 Positioning: Choose a workspace that allows ample natural light to flow in throughout the day. Position your desk near the brightest part of the room to make the most of the available daylight.

- Solar control: Opt for glazing treatments, such as solar controlled glass, that control the amount of sunlight entering the room. This way, you can avoid glare on screens while still enjoying the benefits of natural light.
- Reflective surfaces: Incorporate reflective surfaces, such as lightcoloured walls and furniture, to help distribute and amplify natural light within the workspace.
- Biophilic elements: In addition to natural light, consider adding other biophilic elements to your home office, such as indoor plants and natural materials. These elements further enhance the connection to nature and promote a calming and inspiring atmosphere.

### THE ROLE OF THE ROOFLIGHT

Rooflights can help to provide natural light with qualities appropriate to the use of the building. Rooflights let in light from the brightest part of the sky and are not generally affected by external obstructions, such as trees or other buildings. They also provide a more even pattern of light than vertical windows.

Rooflights can form part of an effective technical lighting scheme, particularly in conjunction with efficiently controlled



artificial lighting, to produce specified illumination levels for particular tasks. According to leading consultants, horizontal rooflights provide three times more light than vertical windows (the equivalent of 10,000 candles on a sunny day), which is more than 200 times the light needed for most educational or work related tasks.

In addition, rooflights can also add to the more subjective qualities of spaces

as an integral part of the building's architecture. They can provide views of the sky and promote a sense of wellbeing and connection with the outside without the distractions encountered with views through vertical glass windows.

These facts are well understood by most people involved in building design. However the huge potential of rooflights to provide exactly the amount, type and distribution of natural light required to meet any given specification is not always appreciated.

As our lives become increasingly urbanised and technology-driven, biophilic design emerges as a powerful tool to reintegrate nature into our built environments. Natural daylight, a fundamental aspect of biophilic design, has a profound impact on wellbeing, health, and productivity.

For those embracing the trend of home working, the incorporation of natural daylight into home design is an essential step towards creating a nurturing and productive workspace. By prioritising the inclusion of natural light via rooflights, we can foster a more balanced and harmonious living environment that promotes our overall happiness and performance.

Paul Trace is director at Stella Rooflight

## Zentia launches new Product Selector tool to aid product selection process

Zentia, one of the UK's market leaders in complete ceiling solutions, is excited to announce the launch of its new Product Selector tool, designed to streamline the product selection process and offer recommended solutions for every project. Available on the Zentia website, the Product Selector makes it easier than ever for architects, designers, and specifiers to find the perfect product for their specific requirements.

The Product Selector tool is user-friendly and intuitive, allowing users to enter key project details such as sector, room type, colour, material, and shape. Based on the provided criteria, the tool offers recommendations, identifying the ideal product for the project and presenting alternative options. The recommendations are designed to match the specific demands of a wide range of sectors, including education, healthcare, and commercial spaces.

Another key feature of the Product



Selector is instant access to useful resources. After receiving product suggestions, users can immediately access relevant product documents, download PDF information packs or request samples and additional specification support.

Whether your project calls for superior acoustic performance in educational environments, infection control in healthcare facilities, or striking design elements in commercial spaces, Zentia's Product Selector offers reliable, high-quality ceiling system options to meet any challenge.

Michael Anderson, Head of Architectural and Design Consultancy, at Zentia commented on the new tool: "At Zentia, we are committed to enhancing the specification experience for our customers. With our extensive range of ceiling solutions, we understand that finding the right product can sometimes be overwhelming. The Product Selector tool makes this process easy and seamless, ensuring our customers can find exactly what they need in just a few clicks."

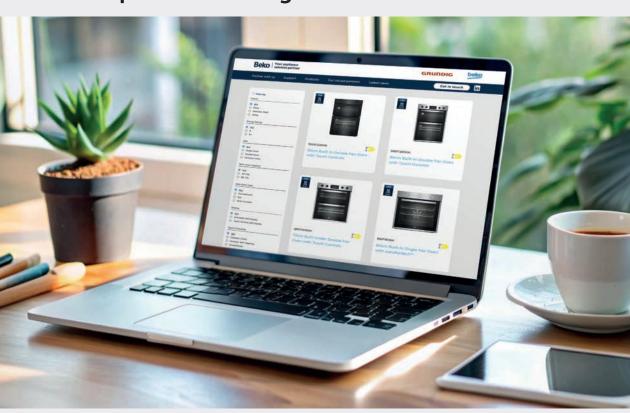
Zentia's commitment to innovation and customer service goes beyond providing exceptional ceiling solutions. The launch of the Product Selector is testament to Zentia's dedication to being a trusted partner in delivering products that perform, inspire, and stand the test of time.

### 0191 497 1000

www.zentia.com/en-gb/product-selector

Beko | Your appliance solution partner

## Beko Appliance Partners launch new online product catalogue



A ppliance provider Beko Appliance Partners, who specialise in supplying tailored appliance solutions to housebuilders, developers and build-to-rent providers, have recently enhanced their website with the addition of a new online product catalogue.

This significant update to the website of Beko's contract supply division allows visitors, for the first time, to explore the company's extensive selection of appliances from both their Beko and Grundig ranges. Beko Appliance Partners' product portfolio, which continues to prove popular amongst providers of new homes, has been thoughtfully selected for the housebuilder market from the brands' wider ranges of products by a knowledgeable specification team. The team's vast experience in providing bespoke appliance solutions for new build projects has shaped their choices for the range as they aim to create the most suitable



possible selection of products for their partners, with options for all project budgets.

Each model is presented with detailed product specification and clear energy ratings. Further information is also available on the appliance's programmes, functionality, dimensions, noise levels, connection and installation details. Whether searching for sleek, integrated fridge freezers, energy efficient induction hobs or compact dishwashers, housebuilders and developers can now easily select appliances that align with the goals of their project.

Beko appliance partners' national contract specification manager, Mike Beech comments: "We are proud to announce the addition of the Beko and Grundig product pages to our website. Our online catalogue allows our partners to easily view our entire range of appliances available for their residential developments, enabling them to find out more about the innovative technologies and unique features of our products which have been designed to add value to their homes and save their customers time and money. Larger product categories contain filters to allow users to easily view only the appliances which fit their specific requirements.

Mike continues, "Whilst the website provides a fantastic overview of our exciting product ranges, we are keen to emphasise the tailored service we are able to provide as specialist suppliers to the residential property sector. Whether our partners require large capacity appliances for substantial family homes or more compact solutions where space is at a premium, we are able to recommend the most effective solution to complement any kitchen design. We hold stock specifically to support contract fulfilment in our world-class storage facility here in the UK, and we offer a tailored support package with a nominated customer care team to provide ongoing reassurance to our partners and their customers."

The launch of this new online product catalogue reinforces Beko Appliance Partners' position as a leader in delivering quality energy and water-efficient appliance solutions to support the new homes sector. By offering competitively-priced, stylish products through an easy-to-navigate online platform, Beko aims to become the go-to appliance partner for housebuilders and developers.

appliancepartners@beko.co.uk appliance-partners.bekoplc.com/products



## How flexible design transforms retail environments

Retail design strategically utilises space, aesthetics, and functionality to enhance the shopping experience. Zentia's Prestige suspended ceiling tiles offer a wide range of colours to align with brand identity and seasonal themes. Their easy installation and adaptability enable quick changes to store layouts without compromising aesthetic or acoustic quality, ensuring a seamless and inviting retail environment.

Retail design directly impacts the customer experience and a shopper's willingness to buy a product. It encompasses everything from store layout and organisation to interior design and colour selection. Acoustics and the careful use of colour play an important part in this.

While colour can be used in retail interior design to enhance a brand, it is important to use it thoughtfully. Too much vibrant colour can cause sensory overload and make it difficult for customers to focus on products. Too much dark colour can make a store feel gloomy, causing customers to exit before purchasing. The Prestige family of products



is an excellent product to use in retail ceiling design. It offers three different levels of sound absorption and is available in six different edge details. It can also be ordered in 34 different colours, as well as white. It is one of our most flexible product ranges for both acoustic performance and aesthetics.

Prestige acoustic ceiling panels are quick and easy to install, especially when used in combination with Gridline, our suspended ceiling grid.

Choose a Board edge for a flat ceiling installation that completely exposes the ceiling grid, or a Tegular24 or Tegular15 edge type to create geometric shadows across the ceiling surface. Prestige ceiling tiles can also be specified in SL2 planks, ideal for corridors, as well as unique Integra and Conceal edge types, designed to eliminate shadows and conceal the suspended ceiling grid entirely.

Rated Class A for sound absorption with aw 1.00, the Prestige hA+ tile provides settings with a dose of calm and quiet. It is ideal for banks and other high street environments that are usually quiet. This tile is available in white only, so it suits interiors that require a more neutral colour scheme.

For retail environments that need a more lively atmosphere, the classic Prestige ceiling tile are Class C rated in sound absorption, with an added sound attenuation rating of 33 dB, a combination that helps manage ambient noise levels in open plan spaces.

Prestige ceiling tiles maintain superior aesthetic standards while providing crucial acoustic benefits, ensuring a pleasing shopping experience that minimises and manages disruptive noise levels.

### 0191 497 1000

www.zentia.com/en-gb/the-prestige-family

# ARDEX and Polypipe Underfloor Heating join forces

RDEX – one of the UK's leading manufacturers and suppliers of high-performance building products for flooring and tiling – has partnered with Polypipe Underfloor Heating to provide a trusted solution for their water-fed underfloor heating systems.

ARDEX products have been extensively tested with Polypipe Underfloor Heating's Overlay<sup>®</sup> gypsum panels, Overlay<sup>®</sup> Plus lightweight retro-fit boards, as well as their solid floor systems including the Red Floor Panel System, Clip Rail and Staple systems.

ARDEX and Polypipe Underfloor Heating have joined forces to produce a comprehensive installation guide. Available to download by visiting ARDEX.co.uk and PolypipeUFH. com, the guide covers everything from subfloor preparation and installation of retro-fit board and solid-floor systems to tiling and resilient flooring installation guidance using ARDEX products.

Emma McDonald, ARDEX UK technical



Manager, said: "After a long process involving extensive testing of Polypipe Underfloor Heating's warm-water systems with our products, we're delighted to be able to announce this partnership.

"This is one of the first partnerships of its kind in the industry, providing a recommended system when tiling or flooring onto these kinds of retro-fit systems to help ensure problem-free installations.

"The system covers everything from the preparation of subfloors prior to the installation of these systems, right to the products needed to fix tiles or lay resilient flooring. ARDEX solutions have also been tested and are recommended for use with Polypipe Underfloor Heating systems for use in solid or screeded floors.

"Whether you're installing warm-water UFH or laying a floorcovering over an existing system, our partnership provides clear guidance and will help you overcome common installation problems."

Stuart Wood, product manager – sustainable heating from Polypipe Underfloor Heating said: "We are delighted to be working with Ardex, ensuring our customers receive the best advice on floor preparation both before and after the installation of our Underfloor Heating Systems. ARDEX have worked tirelessly with us over the last few months to create a comprehensive guide that really supports best installation practises for the industry."

www.polypipeufh.com ardex.co.uk

# Building a brighter future with Vicaima

s we stand on the brink of potentially a major re-focus for the construction sector and a new emphasis upon delivering living, learning, leisure and workspace fit for future generations, incorporating designs to meet ever-changing aspirations, we must not lose sight of the need for maintaining quality, regulatory and environmental standards.

In the realm of fire safety, Vicaima has established itself as a leading manufacturer of timber doors and door kits, setting a benchmark in the industry with comprehensive certification and third party accreditation. With a commitment to design quality and performance, Vicaima has consistently demonstrated its ability to produce doors that not only meet the needs of current living, but forever look to the future. With an unwavering attention to sustainability goals, Vicaima products integrate seamlessly with the needs of the built environment.

### LASTING GOOD LOOKS

A perfect example of how Vicaima combine tough products with real room appeal is in the use of the recently expanded Dekordor HD Colours range. In a world where skills and labour shortages on site are a constant concern, the argument for using factory assembled door kits and pre-finished products is self-evident. HD Colours presents a high resistance, durable continuous pressure laminate that affords long lasting good looks, with a choice of 14 on-trend colour options. Already extensively used for student accommodation, education and commercial environments, HD Colours has a proven track record, making it a worthy alternative to the ever-present and widely used white door and frame. Fresh for Summer 2024 has been the introduction of four new finishes, including Twilight Blue, Granite Grey, Green Mist and Light Grey. These neutral colours add an ideal subtle touch for rooms. Designed for a brighter future in living and workspaces.



### SUSTAINABILITY / ESG

The Vicaima Group is committed, within the framework of the ESG (Environment, Social and Corporate Governance) criteria, to making its contribution towards achieving the Sustainable Development Goals (SDGs) defined by the United Nations.

Vicaima acts with the responsibility of providing the market with solutions that have a reduced impact on the environment, are accessible to all and ensure people's safety and well-being and contributing to a more inclusive way of living.

Being sustainable in today's timber doors market, is not just about having all your products covered under FSC certification. While that is the case with Vicaima, their aims and aspirations go well beyond ticking obligatory boxes. As the saying goes, actions speak louder than words and so it is a measure of the importance Vicaima sets in its ESG obligations that it has laid out the Facts and Figures of its path through sustainable.



Most recently, Vicaima announced that Sustainable Production and Consumption was one of its major areas of action, working actively to extend the life cycle of its solutions, by optimising the entire value chain and minimising waste.

The Vicaima Group's approach to this issue has produced concrete and measurable results. In 2023, a total of 4,139 tonnes of waste was generated, representing a 15% decrease compared to the previous year. From this volume, of which wood waste represents a significant part, 96% was valorised through reuse in new products, recycling or the production of thermal energy.

During all operations, the different waste circuits are continuously monitored and categorised, making it possible to optimise the separation and forwarding of waste for recovery via the various duly accredited waste partners or operators, with the aim of being reused and reintroduced into the value chain, thereby avoiding the final destination to be landfill.

In this context, priority is given to progressively include in Vicaima's manufactured products or those that it integrates throughout the supply chain, renewable materials, high percentage recycled materials or wood-based products made from fast-growing natural fibres, rather than virgin raw materials

As we look to the future, Vicaima continues not only to lead the way in product performance, but also to ensure this goes hand in hand with design and innovation, for a safe and sustainable environment.

technical@vicaima.com www.vicaima.com

# Gaia celebrate 35 years designing, supplying and installing underfloor heating

G aia are celebrating 35 years delivering underfloor heating across the UK and Ireland.

Established in 1989, Gaia have become a recognisable name in the underfloor heating community.

"We're proud to have become an established provider of underfloor heating. Trusted by architects, contractors, M&E consultants, builders and developers nationwide, clients come to us for our expertise, dependability and friendly approach – which have gained us many valuable relationships over the last 35 years" says Steven Rooney, director of Gaia.

The company has experienced consistent growth over the years, expanding its workforce to over 50 employees.

Today, Gaia offers the complete underfloor heating package, from system design to supply and installation – as well as an exceptional after-sales service.

"We're passionate about offering a personal service, from recommending the right system to answering any queries throughout the project and beyond. Whatever the project, our capable team are always on hand to find the most suitable solution" adds Steven.

"As we've reached this significant milestone, we're also celebrating our loyal employees – many of whom have been with us for over 20 years. Our success wouldn't have been possible



without them" adds Chris Alecock, fellow director of Gaia.

Gaia have completed a wide range of commercial and residential projects – from The Shard – One Hyde Park and Center Parcs to Canterbury Cathedral and the biggest electric project in 15 years at Eight Gardens, Watford.

Having worked with housing developers such as Taylor Wimpey and Telford Homes, Gaia have become the UK's underfloor heating partner of choice. "Whatever the scale of the project – residential or commercial – we have built a trusted reputation for designing, supplying and installing underfloor heating. With 35 years' experience – and demand for energy-efficient heating on the rise – we're ideally placed to provide the solution architects and developers are looking for" concludes Steven.

01359 242 400 www.gaia.co.uk

# Troldtekt A/S reduces carbon footprint with new initiatives

In three years, Troldtekt has reduced its carbon footprint per square metre of acoustic panels produced by 6.9%. This is shown by data in Troldtekt's CSR report for 2023. The reduction has occurred in Scope 3, which mainly covers cement from Aalborg Portland. Part of the explanation is due to the cement type FUTURECEM<sup>TM</sup>.

Cement provides the well-known Troldtekt® acoustic panels with their robustness, fire retardant properties and extensive durability. But the cement from



Aalborg Portland also accounts for virtually the entire carbon footprint of the panels. In 2023, Troldtekt reduced its carbon footprint per square metre of acoustic panel produced by 4.3%. Over three years – from 2020 to 2023 – the reduction has been 6.9%.

The new  $CO_2$  figures are included in Troldtekt's CSR report for 2023. It shows that 99% of the carbon footprint in 2023 came from the so-called Scope 3, which primarily covers the purchase of cement. At Troldtekt's own factory (Scope 1 and 2), 94.5% of energy consumption in 2023 came from renewable sources in the form of biofuel and wind power. This figure was slightly lower than in previous years due to a period of maintenance on the biomass boiler.

### FUTURECEM MAKES A DIFFERENCE

In 2023, Troldtekt doubled the share of acoustic panels produced based on the cement type FUTURECEM. Together with other reductions at Aalborg Portland, this



is a significant part of the explanation for the decrease in the carbon footprint. FUTURECEM utilises the synergies between calcined clay and lime filler, making it possible to replace a large part of the burnt clinker in the cement.

Over the entire product life cycle, the carbon footprint of Troldtekt acoustic panels based on FUTURECEM is:

- 26% lower than that of Troldtekt panels based on grey cement
- 38% lower than that of Troldtekt panels based on white cement.

Read the full report here: www.troldtekt.co.uk/ media/f5zoy0bi/troldtekt\_csr\_2023\_en.pdf

info@troldtekt.dk www.troldtekt.co.uk

# Fighting fires: an unlikely washroom hero

In the post-Grenfell landscape, fire safety in commercial washrooms is a critical issue. Carole Armstrong of Delabie UK explains how WC frames can sit at the centre of a project's fire strategy for preventing the spread of flame.

Fire safety is not the first thing that springs to mind when specifying nondomestic washrooms. The very fact that there is water literally on tap makes the concept almost counter-intuitive. However, in the wake of the Grenfell enquiry, fire safety is firmly on the agenda and specifiers are now much more attuned to the risk that fire poses in all aspects of building design. What is less obvious is the role that the choice of sanitary fittings in washrooms can play in improving fire safety.

Fire requires three things to spread: heat, oxygen and fuel. Once the initial spark has ignited a fire, the rate of spread depends on the availability of all these three factors. A significant aspect of reducing the risk lies with preventative measures, i.e. eliminating fuel sources as far as possible and reducing the potential for heat transfer. Of course, the ready availability of oxygen means that trained firefighters are best placed to actively deal with limiting its access to burning material.

### Fire-retardant sanitaryware

Post-Grenfell, material choice is definitely the topic-du-jour and in washrooms, fireretardant finishes for floors, ceilings and wall surfaces can all contribute to slowing the spread of fire.

When specifying sanitaryware, flammability is not even a consideration. Porcelain does not burn and, in the event of a fire, it will not release toxic substances or produce smoke. Similarly, stainless steel does not carry a fire rating because it cannot ignite, and it will only start to melt at temperatures over 1,400°C. When it comes to fire safety, sanitaryware can be specified for its aesthetic qualities as well as its ability to prevent the spread of fire.

There is one aspect of washroom design



that can have a positive impact on fire safety, and it is possibly the least obvious solution. In a situation where every second can make a massive difference to the outcome, there is one unsung washroom hero that can potentially be a life-saver. The toilet. Or, to be more precise, the components and frame that accompany the toilet pan.

### Intumescent frame systems

This unassuming assembly of a steel frame, flush valve and evacuation pipe can reduce the spread of fire in three specific areas. Sanitaryware can be specified for its aesthetic qualities as well as its ability to prevent the spread of fire



Firstly, a fire-retardant frame can delay the spread of flames by up to 60 minutes. British Standard BS EN 13501-2 identifies three aspects of fire-resistance: 'E' indicating integrity and the ability to withstand flame and smoke to prevent their spread; 'I' for insulation, which prevents the transmission of heat; and 'W' which indicates the ability to restrict the spread of radiation and toxic gases. So, for example, a frame system with a rating of EI 60 will withstand smoke and flames as well as insulate against the transmission of heat for 60 minutes.

The second super power of a fireretardant WC assembly derives from its valve housing which has an intumescent collar. The collar on the housing has inherent characteristics which allow it to swell when exposed to heat, increasing its volume and decreasing its density. It provides passive fire protection, sealing any apertures in the housing to prevent the passage of oxygen which is vital for fuelling the fire. In effect, there is no need for human intervention in a dangerous environment, closing off the fire's access to oxygen without the need for a fire extinguisher.

The third life-saving aspect of this

unassuming toilet frame is its soil pipe and connector which are also made from intumescent substances. Again, their ability to expand ensures that flames, smoke and noxious gases cannot pass from one room to another. In situations where the spread of smoke can pose as much of a threat to life as the actual flames, the ability to slow and prevent its spread can also be vital to preserving life.

### Unlikely hero

Until recently, safer washrooms meant preventing scalding from hot water, or improving hygiene to prevent the spread of germs and bacteria. In this new post-Grenfell era, it also means tackling the risks posed by fire and smoke.

Not all the solutions are immediately obvious, but the humble toilet frame system is a surprising one. By putting fire safety on the agenda during washroom design it is possible to provide washrooms that are safe for the user. A fire-retardant frame system can really make a difference when vital seconds count.

Carole Armstrong is senior marketing & communications manager at Delabie UK



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# Haworth Tompkins offices become a living showcase

hen architects Haworth Tompkins relocated after over a decade in Kentish Town – the move allowed the studio to combine their main office and nearby satellite office into one new larger space close to the Barbican. The move provided the perfect opportunity to make the new office a showcase of the latest materials and digital infrastructure. Keen to keep to their ethos of reuse, recycle and reduce, many



of the original fixtures and fittings were repurposed to make them suitable for the new office. Facilities also include personal lockers, bike storage and shower rooms to encourage sustainable commuting.

The new studio accommodates 110 staff on site, coupled with digitally equipped meeting rooms, display areas showing architectural models and large open plan areas including hot desks, meeting spaces and break out areas. The practice also hosts many public outreach events, such as the London Festival of Architecture, Architects Declare Sustainability events and various exhibitions. As a result, Troldtekt wood wool acoustic panels were used to control the acoustics and help acoustical performance. Specified in a natural finish, they blend in well with the existing substrate of concrete, wood and tiled floors.

Troldtekt wood wool acoustic panels excel at mitigating the problems stemming from long reverberation time and reflected sound.



They are available in a variety of different structures and colours, combining superior sound absorption with an award-winning design. The Troldtekt range has a minimum expected life cycle of 50 years coupled with excellent resistance to humidity and tested to meet ball impact standards. The range is available in various sizes and structures, from extreme fine to fine. They can be supplied as unpainted natural wood or natural grey Futurecem<sup>®</sup>, alternatively they can be finished in our standard colours or almost any RAL or NCS upon request.

info@troldtekt.dk www.troldtekt.com

## Zentia unveils Decoframe – A renaming of the Axiom range

Zentia is excited to announce the renaming of its popular Axiom range of canopies to DecoFrame. This change reflects the company's commitment to modern design and high acoustic performance, offering customers a solution where aesthetics and functionality meet seamlessly.

Previously known as Axiom, the newly named DecoFrame line includes several key changes:

- Axiom C Canopy is now DecoFrame Kit Classic Canopy
- Axiom KE Canopy is now DecoFrame Kit Blade Canopy
- Axiom Curved Canopy is now DecoFrame Kit Curved Canopy
- Axiom Circle Canopy is now DecoFrame Kit Circle Canopy

**Aesthetic Appeal Meets Acoustic Performance** Zentia's DecoFrame canopies are designed to deliver on both style and practicality, providing a modern, striking visual appearance while maintaining excellent acoustic performance. Packaged and delivered as a kit, the canopies offer quick and easy installation. With DecoFrame, there's no need to compromise between aesthetics and functionality.

This makes DecoFrame canopies the perfect solution for open-plan environments such as offices, schools, and public buildings, where controlling acoustics and maintaining an appealing design are critical.

### Key Features & Benefits

Key features of the DecoFrame include:

- Seamless Integration: DecoFrame canopies integrate effortlessly with nearly all of Zentia's range of ceiling tiles, providing designers with creative flexibility.
- Optimised Acoustics: Each canopy enhances sound control, making it ideal for open-plan spaces such as offices, schools, and public buildings.
- Customisable Design: Available in various



shapes, including circle, curved, and rectangular, DecoFrame is customisable to meet the unique needs of any project.

The DecoFrame range offers a variety of standout features designed to enhance both aesthetics and functionality. Its floating canopy design adds dimension and visual appeal to any space, available in customisable shapes like circle, curved, and rectangular forms. The frame and tile system is compatible with a wide range of ceiling tiles, offering design flexibility for all shapes, while the acoustic performance makes it an ideal choice for open-plan areas like offices and schools. Installation is simple and efficient thanks to the joggled Gridline system, allowing for quick, hassle-free setup.

0800 371 849 www.zentia.com/en-gb

# Weatherclad<sup>®</sup> gives Cardiff modular homes durable exterior finish

uroform's wood effect fibre cement shiplap planks have been used by @Home MMC to finish 57 modular homes, part of a new scheme of 154 transitional homes in Cardiff. With its natural timber look, WeatherClad<sup>®</sup> is designed for external applications where durability and performance are required.

Cardiff Living's development Ffordd-y-Rhaffau in Grangetown, a partnership between Cardiff Council and Wates Group, provides temporary accommodation for 154 families while the Council works with them to find a more



permanent housing solution. The last few units were handed over to the Council in October.

Built offsite by modular construction company @Home MMC using modern methods of construction, following groundworks, the energy-efficient, one to four-bedroom homes were transported to site and lowered into position.

Euroform supplied WeatherClad® in a range of colours to @Home MMC's manufacturing facility. The planks are easy to work and fix. A comprehensive range of colour matched profiles and trims were also provided.

Conformity assessed to BS EN 12467:2012+A2:2018, WeatherClad® carries third party BDA Agrément certification from KIWA. It has a BS EN 13501-1 Reaction to Fire classification of A2-s1,d0. Weatherclad® is part of the range of Euroform's Code for Construction Product Information (CCPI) assessed products.

With funding from the Welsh Government's Transitional Accommodation Capital Programme, Ffordd-Y-Rhaffau, which is on the site of a former gasworks, is part of the Council's response to tremendous pressures on housing and homeless services in the city.

Cabinet Member for Housing and Communities, Cllr Lynda Thorne: "Our innovative modular development at Ffordd Y Rhaffau has delivered modern, comfortable and energy-efficient homes for families experiencing



homelessness in considerably less time than via traditional construction methods. This has been a crucial part of our response to the city's housing emergency and we are very pleased to have delivered a safe and welcoming place for families to stay as we support them in finding permanent housing solutions."

WeatherClad® can be purchased from Euroform in split pallets, helping customers to avoid waste. There is no minimum order. Euroform has an easy-to-use online tool for calculating the number of boards required for projects: https://www.euroform.co.uk/ weatherclad-calculator/

Euroform develops, fabricates and supplies materials for the construction industry, specialising in ensuring fire and thermal compliance across its product range. It is part of the Performance Technology Group, a group of companies supporting the construction industry to meet acoustic, fire, thermal and vibration challenges.

01925 860 999 www.euroform.co.uk

# Wraptite<sup>®</sup> external air barrier helps to deliver performance and quality in new development

raptite<sup>®</sup>, the vapour permeable external air barrier from A. Proctor Group, is part of the highperformance residential building specification in the new Dublin city quarter, Glass Bottle.

The creation of Glass Bottle is transforming some 15 hectares of a former glass bottlemaking site that was once home to one of the most modern factories in Europe.

The work currently being undertaken, and which features the use of Wraptite as part of the specification, is Phase 1.

## Specifying an external air barrier for the new Glass Bottle city quarter

The external wall build-up of the apartment buildings is a fairly typical light steel frame structure with a sheathing board and external finish. Designed and specified by Dublin-based architectural practice Henry J. Lyons, the Wraptite external air barrier was named within their specification pack.

As an airtight and vapour permeable



membrane, Wraptite can be positioned to the external side of the structure. This moves the airtightness barrier away from the internal services zone, simplifying detailing and reducing the number of penetrations through the membrane. At the same time, allowing the passage of moisture vapour eliminates condensation risk.

It is even possible to use Wraptite as the sole membrane in a wall build-up, subject to the appropriate condensation risk analyses being carried out.

However, at Glass Bottle, the Phase 1 specification still included an internal vapour

control membrane as part of a belt-and-braces approach.

The residential apartments feature mechanical heat recovery ventilation, so an airtightness target of less than 3  $m^3/hr/m^2$  will be desirable. The better the standard of airtightness achieved on the project, the more efficiently the heat recovery ventilation will operate – and that all depends on the quality of the installation.

## Installing Wraptite external air barrier on Phase 1 of Glass Bottle

The performance of Wraptite membrane is founded on it being a simple, self-adhesive solution, with the added benefit of Wraptite Tape being used for particular areas of detailing. This approach saves on the labour and material costs associated with meeting modern energy efficiency requirements, which are at the forefront of Glass Bottle's conception.

01250 872 261 proctorgroup.com

# Get colourful with Bradite

Working with a client to select an exterior colour scheme involves a number of different considerations. Most importantly, do the colours chosen complement the exterior of the property? How should a painter and decorator select a colour scheme on behalf of a client, or advise them on how their choice may or may not work?

It's crucial that any paint chosen for exteriors should be durable enough to withstand all that the British climate has to throw at it, and Bradite's One Can certainly delivers in this respect. A primer, undercoat and topcoat combined, water-based One Can is tough and long lasting. It has excellent adhesion to a wide range of surface materials, including uPVC, and can be supplied with a matt or eggshell finish.

But most importantly for our subject, One Can is also available to be tinted in all RAL, BS and NCS colours. You can choose freely from this extensive colour range to select shades that will



flawlessly complement your client's home exterior.

Many period properties are traditionally built out of stone. Warm neutral colours work well in this case, whether you are painting masonry, front doors, window frames, sills, soffits and more. Shades like RAL 9001, or 10 C 31 in the BS 4800 range, are firm favourites for many country houses. But if the client is happy to go with something a little more adventurous, consider a bold blue-green like BS 16 E 53.

For a more contemporary exterior, there's also the option to create

contrast with a dark, impactful shade. Try a deep navy like '106 – Royal Blue' from BS 381C, or a dark grey-green like '220 – Olive Drab'. The latter is a popular choice for painting metal railings to ensure they blend into the surrounding greenery. Alternatively, a straightforward, no-nonsense jet black like RAL 9001 is great for painting garage doors and front doors.

Another popular substrate for home exteriors is, of course, red brickwork. Consider using bold shades of green on the front doors of these properties. As any artist will tell you, green is the complementary colour to red, so this is a failsafe colour choice to create instant kerb appeal. Consider rich greens like RAL 6016 or 6026.

Finally, it's often a good idea to offer the client a test with a sample pot before they make their final choice. Once the colour is agreed, you can begin your masterpiece!

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# Wall Cavity Barrier (Red Edition) meets masonry construction challenge

n medium to high rise buildings where the external facade is masonry, brickwork may need structural support, typically steel support shelves, but this is often located where a cavity barrier should be positioned. Installing wall cavity barriers together with masonry support shelves without a detrimental effect on the building's fire safety can be a challenge. Now, testing shows this can be achieved with AIM – Acoustic & Insulation Manufacturing's new Wall Cavity Barrier (Red Edition).

Launched in summer 2024, AIM's Wall Cavity Barrier (Red Edition) is for use as a cavity barrier or cavity closer within the external wall structure of a building to prevent the passage of heat, flame and smoke within the cavity it fills for 30, 60 or 120-minute fire rating periods. Due to its extended fire rating, the Wall Cavity Barrier (Red Edition) is intended for use, both vertically and horizontally along fire compartmentation lines, in medium to high rise buildings requiring



enhanced levels of fire protection.

In recognition of the challenge of installing a barrier with masonry support shelves, the Wall Cavity Barrier (Red Edition) has been tested with a Leviat designed masonry support shelf indicative of an onerous situation and performed well with cavities up to 300mm. The test configurations were varied to represent varying levels of penetration of the masonry support bracket into the barrier. The tests confirm that the Wall Cavity Barrier (Red Edition) gives up to 120 minutes El (Integrity and Insulation).

"The outcome of the testing is that our Wall Cavity Barrier (Red Edition) may be fitted at the top or bottom of the floor slab, with the masonry support shelf tested with a 50% to 140% penetration through the cavity barrier line. This gives the installer much more flexibility in installing both the masonry support shelf and the cavity barrier," explains AIM's commercial director lan Exall.

The testing is in accordance with BS EN 1366-4:2021, recognised throughout the UK and EU as an appropriate resistance to fire test standard for cavity barriers. Testing also included masonry and steel frame systems (SFS). AIM has also invested in third party certification from UKAS accredited IFC Certification Ltd in masonry activities.

Wall Cavity Barrier (Red Edition) can be



used to fill voids up to 600mm in masonry construction and has been tested in SFS construction and rainscreen cladding. Supplied in slab form for on-site cutting or cut to size, AIM's Wall Cavity Barriers are available in 600 and 1200mm wide slabs in 75, 100 and 125mm thicknesses. They are often used in conjunction with AIM's Open State Cavity Barriers (OSCBs).

AIM provides technical, specification, trainin g and on-site support. New Wall Cavity Barrier (Red Edition) technical literature, including fixing instructions, can be downloaded at: aimlimited.co.uk/solutions/wall-cavity-barrier/

01293 582400 www.aimlimited.co.uk

# Metalline's innovative rainscreen cladding: Redefining architectural design & performance

etalline has revolutionised architectural design by delivering over 1,000 square metres of cutting-edge rainscreen cladding for a landmark project. Featuring a dynamic combination of Gold Anodised Perforated UNITY TF panels fixed to the specially engineered ULTIMA 3 spandrel system, this project presented both aesthetic and technical challenges. The intricate perforated pattern of each panel seamlessly fits into the building's design, transforming the entire facade into a work of art. This bold, innovative cladding solution not only enhanced the building's visual appeal but also set a new benchmark for complex rainscreen systems.

The perforated pattern on the UNITY TF panels was carefully distributed across all sections of the building, giving the entire facade a seamless, interconnected look. Each panel was not just a decorative feature but a functional piece of a larger puzzle, with its design contributing to the overall visual cohesion of the structure. Behind the gold anodised rainscreen panels was a black PPC inverted tray spandrel panel, enhancing the contrast of the perforation and providing an added layer of aesthetic depth. The outer rainscreen panels were anodised in Europe to achieve the desired premium finish, giving the building a distinctive appearance that stands out in its urban environment.

One of the most significant challenges faced during the execution of this project was the size and weight of the panels. Due to their intricate design and robust material composition, each panel had to be carefully engineered for both structural integrity and ease of installation. Metalline overcame this challenge by ensuring that each panel was equipped with its own lifting block and pre-drilled anchor points, facilitating precise alignment and safe handling during installation. Given the limited space available on the construction site, this careful planning and the use of specialised lifting apparatus were critical to ensuring the smooth progression of the build. The panels were lifted and positioned with minimal margin for error, ensuring that the entire system fit perfectly within the building's glazing system.

The UNITY TF Through Fix Rainscreen System used in this project is a noncombustible solid aluminium rainscreen



that is designed for both new builds and recladding projects. The system's compatibility with either the CLAD-LINE CL1 or Floor 2 Floor Framing Systems made it a versatile and easy-to-install solution. In terms of safety, the UNITY TF system has undergone rigorous testing to verify its fire and structural performance. The anodised aluminium version of the panel achieves an A1 classification to BS EN13501-1, while the powder-coated version holds an A2-s1,d0 classification and has successfully undertaken BS 8414-2:2020 testing, ensuring the highest levels of fire safety. Powder-coated panels were tested to BS EN13501-1 under realworld conditions, including being mounted onto aluminium rails with horizontal and vertical joints, adequate ventilation, and a mineral wool substrate. These tests covered the full range of colour options, making the UNITY TF an ideal choice for highperformance, durable cladding with extensive design flexibility.

In addition to fire resistance, the UNITY TF system demonstrated superior impact resistance, with both soft and hard body impacts fully tested to CWCT TN75/76 standards. The panels were also tested for wind resistance, dynamic water resistance, and UV exposure, ensuring their long-term durability even under harsh environmental conditions. Moreover, the system's easy installation and cost-effectiveness made it a practical solution for replacing non-compliant cladding panels in existing structures, further broadening its appeal.

Behind the rainscreen, Metalline's ULTIMA 3 insulated spandrel panels provided essential structural support and thermal performance. Available in both A1 and A2-s1,d0 fire-rated options, the ULTIMA 3 panels are constructed from high-density mineral wool insulation sandwiched between two aluminium skins. This design ensures that the panel meets both fire compliance and structural integrity standards while maintaining the appropriate glazing edge thickness for aesthetic and functional consistency. In the A1-rated version, the outer sheet is made from anodised aluminium and is mechanically fixed to the inner aluminium tray. In contrast, the A2-rated version offers a powder-coated outer aluminium sheet with a mill-finished aluminium or pre-galvanised steel inner sheet. Both options use a Fabrock Insulation core and foil-encased Rockwool mineral wool insulation bonded to the back for enhanced thermal performance.

Further bolstering the design's robustness, the ULTIMA 3 panels are fully tested for wind resistance and impact resistance, meeting CWCT standards. With a variety of colour options available, the panels also offer low-maintenance durability and can be fitted seamlessly into structural glazing systems without visible fixings, maintaining the clean, modern aesthetic that was a key design goal for this project.

Overall, this project demonstrated Metalline's ability to deliver a complex cladding solution that balanced high-level design requirements with rigorous safety and performance standards. The combination of the UNITY TF system and ULTIMA 3 panels created a striking visual effect while ensuring the building met the highest standards of fire safety, impact resistance, and weather durability. This unique cladding system has set a precedent for future projects, offering a new benchmark in both aesthetic appeal and functional performance.

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# Linarte pushes architectural boundaries with One Baelskaai

ne Baelskaai is the figurehead of the East Bank, in Ostend's historic port. Binst Architects gave the iconic corner building commissioned by the Versluys Group undulating patios and expressive patio borders. To evoke the dune grass and dune fencing, the architects chose Renson Linarte brown-black/bronze profiled facade cladding to contrast with the flowing



horizontal lines. We spoke to Binst Architects about the search that preceded this.

"The facade reflects the character of the site, port area, and coast", explains Ward Lagrain, project architect. "The patios and their expressive patio borders give the complex a unique look and maritime character. The building's undulations mirror the undulating character of the dune landscape in front and the sea. Undulating continuous glass balustrades reflect light, air, and water."

The material usage at One Baelskaai also refers to the surrounding dune landscape. The profiled Linarte facade cladding by Renson evokes the image of the dunes. Although Linarte offers the possibility of personalisation by adding wooden inserts or led lights, the architect chose the clean, sleek look. "As architects, we did say that we wanted a vertically profiled facade that hinted at the dune grass and the wooden posts with barbed wire that demarcate the



dunes. That subtle vertical reference in our facade contrasts nicely with the horizontally sloping patio borders."

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# **Mastering maintenance**

For social landlords, implementing an effective and well-planned regime of maintenance is critical to ensuring their residents' homes are safe and fit for purpose – particularly when it comes to waterproofing, Roland Jackson of SOPREMA explains more.

ike every other variety of residential accommodation, social housing developments require a programme of ongoing diligence and maintenance. If the programme is planned and executed effectively, assets will remain in a good state of repair for longer, thus providing a secure and safe home for residents while minimising long-term building costs for authorities.

Various refurbishments of walkways, roofs, stairwells and balconies will be central to such programmes. To ensure such projects are successful and deliver on performance and value, several considerations need to be made.

Firstly, social housing refurbishment works often need to accommodate high levels of residents in situ during implementation, making it extremely important to plan carefully.

Minimising disruption and inconvenience, without sacrificing on the quality of delivery, is therefore critical. To this end, selecting products that are simple and quick to install, have non-slip properties, and are hard-wearing can have a tremendous impact.

Often the areas that are most commonly refurbished are those with the highest footfall, including walkways, entrances and stairs – to minimise disruption in the future, it is crucial that robust, long-lasting products and solutions are adopted.

It's important to also consider that social housing refurbishments involve people's homes. All residents should expect improvement works to result in an aesthetically pleasing finish, while individual preferences may need to be taken into account. For example, some residents may not be comfortable with torchon waterproofing solutions being used in their homes, from both a fire risk and a noise perspective.

Choosing the right waterproofing products is therefore essential and opting for a PMMA-based liquid waterproofing membrane and PU system aligns with many of the aforementioned considerations and requirements. Firstly, this sort of product is quick to install and cure, with much of the work being possible to complete within a day (moving from primer to finish takes only a few hours). This helps to minimise disruption for in-situ residents during the refurbishment work.

PMMA-based solutions are also robust, durable, and easy for maintenance teams and residents to clean and manage. This makes them ideal waterproofing choices for areas such as balconies, capable of withstanding the additional weight of home furniture such as tables, chairs and plant pots.

In regard to providing an aesthetic finish, PMMA-based waterproofing products are also typically available in a range of finishes that can be customised to suit a customer or resident's preferences. Tiled finishes offer a solution that is pleasing on the eye, and many products offer a variety of colours that can be utilised to create numerous decorative effects on balconies and terraces.

The choice of finish will depend on the application in question. Flat roofs, parking areas and some terraces may benefit from a Deco structure finish made up of acrylate-based chips, or a Deco mix finish based on acrylate flakes and coloured, kiln-dried quartz sand.





In terms of safety, an important feature of PMMA is that it does not need to be a torch-on solution. This makes it perfect for environments where torch-on techniques cannot be used due to fire safety requirements.

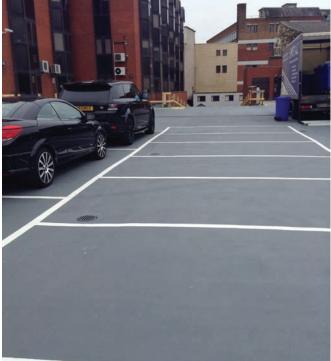
As an alternative to PMMA-based waterproofing products, bitumen membranes can also offer a solution that provides quality, durability and a strong service life, especially for flat roofs.

For environments such as balconies, additional work will be required, in the form of either adding a walkway or placing balcony tiles on top of waterproofing systems. Furthermore, in high-traffic areas, bituminous waterproofing may be more prone to damage, which is another important consideration.

Ultimately, local authorities and social landlords need to have confidence that the chosen solution is fit-for-purpose and can deliver the required upgrade efficiently and to a high-standard. The best way to select the most appropriate solution is by partnering with an expert supplier who can provide the necessary guidance and product specifications.

Roland Jackson is commercial director at SOPREMA

Selecting products that are simple and quick to install, have non-slip properties, and are hard-wearing can have a tremendous impact



### Belfast transport hub features Magply A1 fire resistant roof build-up



One of the most notable infrastructure projects to be completed in Northern Ireland over recent years is nearing completion with the specialist roofing contractor involved installing a PVC system across an intermediate level deck, where originally marine grade plywood had been specified for the deck, but Thornton Roofing changed this to achieve A1 fire performance by recommending A1 non-combustible Magply boards from the range of IPP Ltd, thereby complying with the province's fire regulations and mirroring those in the rest of the UK. With a Class 1 fire rating and backed by BBA Agrement certification, Magply MOS boards present a fire-safe and environmentally friendly alternative to conventional plywood or OSB products. Additionally, the unique production process enhances both the boards' stability and long-term durability, while they create an ideal substrate for installing the full spectrum of waterproofing systems. This includes their use in recovery applications and as a temporary protection layer. The different thicknesses of panel are also widely used as a substrate board for the direct application of proprietary render systems, as well as for flooring and pitched roof build-ups.

01621 776252 www.magply.co.uk



### Crystal keeps faith with Wykamol-Triton range inside & out

Crystal Damp Proofing & Basements is working close to its base in Croydon, Surrey while also employing a selection of products from the **Wykamol-Triton** range with which it is fully familiar. And while the company has undertaken many larger scale projects across the South-East since it was set up three years ago, the 40-year-old residential property its team is currently making progress on, is unusual in featuring existing basement areas both beneath the house and to the rear. The curved outside lightwell and the main sub-structure had both suffered long-term problems with damp and are receiving similar treatments in the form of the C20 and CM8 studded drainage membranes, installed across the concrete floor slabs and blockwork walls respectively: offering a permanent remedy to penetrating damp. Any water which does seep through the masonry is directed into perimeter drains formed using lengths of Aquachannel, which connect to a sump and one of the manufacturer's Aqua Pump kits with battery back-up. The BBA approved Wykamol-Triton CM8 and CM20 Waterproofing Membranes – manufactured from high density polyethylene – are routinely specified as an extra layer of protection for the walls and floors of cellars and basements, with their studded form allowing any water to be directed into perimeter channels and then a sump, which is automatically emptied by an electric pump.

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## Hörmann industrial doors installed at British Army Vehicle storage depot

**H**örmann are working with Skanska UK on a £259 million Ministry of Defence contract to deliver the Vehicle Storage Support Programme (VSSP) at Ashchurch in Tewkesbury, which will provide modern, sustainable and effective storage and maintenance for the British Army's land equipment fleet.

The overall project consists of the construction, mechanical and electrical engineering for a complex programme that will see the demolition of 58 buildings, the construction of 12 new buildings and refurbishment of one existing facility, plus renewal of the site's wide infrastructure. On completion it will provide a centralised facility which will ensure the operational readiness of the Army's vehicles by minimising the need for maintenance.

The updated facilities will provide Controlled Humidity Environment (CHE) storage, aimed at reducing maintenance costs and any unnecessary deterioration caused



by extreme drops or rises in temperature, ensuring that the vehicles are operationally ready at all times. As part of this key requirement Hörmann UK are supplying a total of 226 of their SPU F42 fully automated Industrial Sectional Doors which are split between the 12 new warehouse units and represents one of the largest 'door only' projects that the company has undertaken.

Hörmann SPU F42 double-skinned industrial sectional doors are well known

within the marketplace, recognised for their good thermal efficiency and air tightness properties – key factors in this major project. The doors specified can achieve an impressive U-value of 1.2 W/m<sup>2</sup>k for doors including vision panels and a value of 0.9 W/m<sup>2</sup>k for solid doors. All of the doors supplied provide Class 3 air permeability. This has been achieved with enhanced sealing of the door, with an improved bottom seal, corner seals which improve the tightness between the door frame and lintel, together with infill seals between the ribbing in each section.

All doors are finished in RAL 7016 Anthracite grey externally and Hormann's standard RAL 9002 Grey white internally and provide a minimum clear opening of 5,000 mm x 5,000 mm.

Installation of the first doors began in October 2023, with the project expected to be completed by June 2026.

01530 516868 www.hormann.co.uk

## Knauf Insulation adds to rainscreen range

Rocksilk<sup>®</sup> RainScreen Slab EE, the Rocksilk<sup>®</sup> RainScreen Slab EE, the UK's first non-combustible rainscreen sheathing insulation with an enhanced water-repellent facing. The facing reduces the risk of water damage when the insulation is left exposed to preserve the intended thermal, fire and acoustic performance of the building.

Best practice for installing insulation in rainscreen facades is to use a 'rolling front', but a survey of facade contractors by Knauf Insulation suggests that this is only achieved in approximately 50% of projects. If insulation is left exposed to the elements for too long during construction, it could be damaged, and its performance compromised.

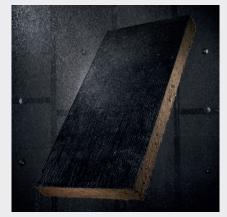


"We designed Rocksilk® RainScreen Slab EE to give specifiers a solution to the exposure problem," explained Luke Davies, product manager at Knauf Insulation, "Rather than rely on best practice on site, specifiers can now proactively protect building performance by selecting a product engineered for the real world."

Rocksilk<sup>®</sup> RainScreen Slab EE has been extensively tested to deliver proven performance. It is non-combustible, with a Euroclass A2-s1,d0 reaction to fire classification and the black facing provides an aesthetic solution for behind perforated facades.

To further simplify specification and support compliance, Rocksilk® RainScreen Slab EE has been added to the new Rocksilk® RainScreen Cavity Systems range, launched earlier this year. Specifiers will be able to meet challenging fire safety requirements with a complete, tested system that includes the sheathing insulation, fixings and cavity barriers.

Alongside the launch of the new product, Knauf Insulation will be releasing a new CPD



on using rainscreen insulation to achieve realworld performance. "Specifiers are under greater pressure than ever, particularly when designing high-risk buildings with rainscreen facades", said Davies. "This launch is part of our wider plan to support specifiers with the products, services and resources they need, to have confidence in their insulation choice."

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