

building construction design

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SPRING 2024

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Sustainability is everything



Sustainability matters when you're specifying building materials, and it's important to have transparency in the supply chain. That's why as a UK producer, we've published independently certified Environmental Product Declarations (EPDs) for our key wall construction membranes, offering a life cycle analysis of each product's carbon footprint.

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Advanced provides fire protection to 5 Aldermanbury Square in London

Fire protection solutions manufacturer, Advanced, has supplied intelligent fire panels to 5 Aldermanbury Square, London, as part of a major refurbishment. Advanced's high-performance, fault-tolerant MxPro 5 analogue addressable fire panels are providing industry-leading protection to all areas of the 22-storey building.

5 Aldermanbury Square is located in the City of London with the Eric Parry designed landmark delivering exceptional views across the London skyline. Fire safety and security specialists, Pacific Security Systems Ltd, was contracted to undertake the upgrade of the building's current Advanced fire panel network. The existing system was an Advanced MX4000 so migrating the system over to new MxPro 5 panels was the obvious solution due to the useful backward compatibility. Since all works had to be

completed overnight to ensure the system was fully operational during the day, this compatibility proved essential.

Pacific Security Systems was involved in the design, installation and commissioning of the fire system. 12 MxPro 5 panels were installed along with an Advanced graphics system and a two-stage staff alarm for false alarm management. Advanced's special build service was also able to design and build a bespoke floor-standing double annunciator that sits on the network via the PEN network device and provides: zonal indication; sounder control; damper status and control; fire phone control; and sprinkler and wet riser indication. The Advanced system is linked to over 3,000 devices including access control systems, dampers, BMS and plant shutdowns. The system uses Apollo protocol and Discovery optical smoke detectors are



installed throughout. Kirk Short, Director of Pacific Security Systems Ltd, said: "Advanced's ability to provide a full package of panels, graphics and special-build service is why we have been specifying and installing their equipment for over 10 years. The MxPro 5 panels provide a powerful platform, comprehensive cause and effect functions, fast network and user-friendly controls and were the ideal solution for 5 Aldermanbury Square. Their backwards compatibility enabled us to upgrade the system overnight while maintaining essential fire protection throughout the refurbishment – no easy feat!"

0345 894 7000 www.advancedco.com

BAL completes successful Environmental Audit

Building Adhesives Ltd – a market-leader in full tiling solutions – have successfully completed a recertification audit for the ISO 14001 (Environmental Management Systems) standard carried out by independent certification body BSI (British Standards Institution).

ISO 14001 is the internationally recognized standard for environmental management systems (EMS). It allows businesses to benchmark their current environmental performance and sets out ways to improve it.

The framework encompasses various aspects, from resource usage and waste management to energy use, transport planning, materials reuse and renewable energy generation. It also looks at how businesses are monitoring environmental performance and involving stakeholders in environmental commitments.

The audit process took place over two days and reconfirmed that Building Adhesives are meeting the standard which they first achieved in 2003.

Clare Brosnan, safety and systems manager at Building Adhesives, said: "The audit

reviewed the whole of the process and systems regarding environmental management, as well as investigating the businesses commitment to continual improvement. We did not receive any non-conformances and successfully retained our accreditation for a further three years. Thank you to all who supported and contributed to the process across numerous departments."

"We can now look forward to six monthly surveillance visits to ensure compliance with the standard."

David Hackett, managing director added: "This recertification confirms our commitment to environmental management and sustainability."

"Sustainability is at the forefront of what we do, meeting industry standards through the product life cycle from raw materials sourcing, product manufacture and consumer use."

"Our environmental policies, integrated into every area of its business activities, now influence everything from product formulation to supplier selection. They are under continual review to ensure best practice



implementation by all staff. As the long-established, acknowledged market leader – for tiling products, for technical support, for training – we aim to continue setting the tile industry standards in environmentally-conscious processes, procedures and policies."

"Comprehensive compliance with statutory legislation and Best Practice procedures, form an integral part of our activities. We believe it is our responsibility to contain and minimise the impact of our business operations on the Environment."

01782 591100 www.bal-adhesives.com

Beko Appliance Partners' parent company, Arçelik, secures inclusion in the Dow Jones Sustainability Index

Beko Appliance Partners, the specialist appliance solution provider to housebuilders, build-to-rent operators, developers and contractors, have announced that their parent company, Arçelik, have received the highest CSA score in their sector in the 2023 S&P Global Corporate Sustainability Assessment for the 5th consecutive year.

Arçelik is once again the highest scoring of the 46 companies assessed in the S&P Global Corporate Sustainability Assessment (CSA) in the DHP Household Durables Category, with a score of 86/100 earning the company a listing in the highly coveted Dow Jones Sustainability Indices (DJSI).

The CSA is an independent evaluation of some of the world's largest companies, assessing their sustainability performance and their environmental, social and governance (ESG) efforts. Performance in the CSA is then used to determine inclusion in the DJSI, that serves as a shortlist of the highest-scoring companies in the ESG criteria based on a number of global, regional and country benchmarks.

Beko Appliance Partners continue to take inspiration from their parent company's example while on their own sustainability journey. From specifying products with

higher energy-efficiency ratings, to working on improving efficiency across their local operations, the company are committed to reducing the carbon footprint for themselves and their partners whilst aspiring to encourage sustainable lifestyles.

While discussing Arçelik's consistent inclusion in the DJSI, CEO Hakan Bulgurlu said; "It is a privilege to have achieved the highest score on the DJSI for the fifth consecutive year – this recognition is a significant accolade for our business. Arçelik's efforts towards building a more sustainable future, not only for our company but also for our customers, are consistently evolving. Sustainability is

deeply ingrained in every aspect of Arçelik's value chain."

Arçelik is aiming to become a net-zero company by 2050, taking a more ambitious step to set long-term targets according to the Science Based Target Initiative (STBi). With an impressive ESG score and ongoing commitment to sustainability, Arçelik continues to set high standards and lead by example, inspiring other companies to prioritise environmental responsibility, social impact and good governance practices.

appliancepartners@beko.co.uk
[appliance-partners.bekopl.com](https://www.bekopl.com)

Beko | Your appliance solution partner

GivBax Rewards shortlisted for top international award

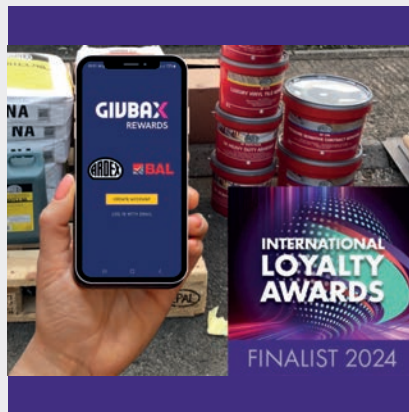
GivBax Rewards – the new loyalty programme from the ARDEX Group UK – has been named as a finalist for a prestigious international award.

The programme – designed for users of BAL or ARDEX tiling or flooring products – has made the shortlist in the Best B2B category at the International Loyalty Awards.

ARDEX Group UK is up against global giants including Budweiser, Ferrero and ExxonMobil which is already proving testament to the success to date of GivBax Rewards and recognition of such a leading programme.

The International Loyalty Awards celebrate excellence, innovation and best practice in the loyalty industry from across the world. This iconic contest celebrates the loyalty industry's most exceptional projects on a global scale. Testament to the longevity of the awards, is the high esteem in which they are held across the world and the exceptionally high standards adhered to.

All categories are judged by an influential and respected judging panel, which comprises over 25 loyalty experts working in all markets and sectors. They have a wealth of experience working in loyalty and know what it takes to shine and succeed in our ever-changing competitive world. The judging is robust, credible and transparent including shortlisting, pre-scoring and a judging session over three days when the panel discusses each entry in detail to select the winners.



GivBax Rewards has been recognised in this global shortlist due to both the ease-of-use member benefits provided by innovative receipt-scanning technology and cash reward redemption via ATMs, together with its success to benefit so many ARDEX and BAL customers in just 6 months.

Within 6 months of launch 8.8% of ARDEX Group UK sales have been logged within the program, with a 73% member engagement rate.

For the first time ever, the public will also be able to vote for their favourite loyalty programme in a new category – "The 2024 International

Loyalty Programme of the Year – As Voted by the Public." This will be open to all finalists in every category.

Voting opens on 1st March and runs until 31st March, with the winners being announced in Dubai on April 24th.

David Hackett, Managing Director at ARDEX Group UK, said: "Being named as a finalist for this prestigious award is a testament to the innovative forward-thinking nature of the ARDEX Group UK – where we are always looking at ways to add-value to our products and services.

"Despite only being 6 months old, GivBax Rewards has already seen more than 17% of our total customer base signing-up and using the programme, with tens of thousands of pounds worth of redemptions being made – that is cash back directly into the pockets of fixers and floor layers across the country. GivBax members have been blown away by the programme, which is shown by the numerous positive reviews submitted as part of the award entry."

Check out ARDEX and BAL's social media accounts to find out how to vote for GivBax Rewards for "The 2024 International Loyalty Programme of the Year – As Voted by the Public."

To find out more about GivBax Rewards or to sign-up to the program visit the website.

01440 714939
[ARDEX.co.uk/givbax](https://www.arDEX.co.uk/givbax)

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Storm protection for 19th century hotel with Vortex Shutter

Only a walk away from Tynemouth Castle, the Grand Hotel has long been a remarkable landmark. Built in the early 1870s as a summer residence, the property was converted into a magnificent hotel in 1877. Since then, it has survived 2 world wars, the 1930s depression and a constant change of ownership.

Rather unconventionally, a bespoke Vortex Bolt-On roller shutter from CGT Security now contributes to preserving a portion of the hotel's architecture!

As the hotel is located at the top of a cliff and faces the sea, it would often experience extreme winds. Whilst in an ideal location for tourists, bad weather did lead to a very draughty reception and entrance area.

Vortex offered the ideal protection against extreme winds for this luxury seafront hotel by safeguarding the entrance and lobby from harsh weather effects.

A certified solution against storm impact and capable of resisting wind loads of up

to 114 MPH, the Vortex Shutter by CGT Security was an ideal solution for protecting this luxury hotel from frequent storms.

Vortex's small rolling feature and radically reduced installation space maximises the overall opening size but minimises the visual impact of the shutter on the hotel's elegant facade. A Vortex shutter has a patented lath design resulting in up to a 50% smaller roll zone when compared to standard shutters. It was installed with a perforated lath to allow outside guests to see through the entrance and know that the hotel is open.

Not only that, but Vortex shutters can also be finished in any RAL colour, in this case, ensuring that the colour is sympathetic to the historic stone of the building. Vortex now protects the main entrance from being forced open and prevents the weather from being let into the lobby, whilst preserving the aesthetics of this remarkable building.

0330 024 9409 www.cgtsecurity.com



Make space for living with the Guardian Home Extension

Guardian Building Systems has launched Guardian Home Extension — a revolutionary offsite solution for domestic extensions. In addition to providing the flexibility and thermal performance needed for modern homes, its simple construction allows it to be built up to five times faster than traditional brick and block approaches, giving you the space your



home needs as soon as you need it.

The system combines the Guardian Warm Wall, fabricated from structural insulated panels (SIPs), with the popular Guardian Warm Roof system. This creates a highly insulated structure which can achieve U-values of 0.18 W/m²k with a much slimmer construction than traditional cavity walls. This can help to increase the useable floor space within a typical 5m x 4m extension by up to 20%, giving you more room to live, play or work. All the elements are manufactured offsite to each project's bespoke requirements, ensuring the highest quality and limiting the need for onsite adjustments and waste.

Guardian Home Extension is available in several configurations, with a range of roof types, shapes and external finishes available, from rendered walls to traditional brick and



slate constructions. To help guide and inspire customers, Guardian has developed five template Guardian Home Extension designs for common uses: Social+, Creative+, Play+, Rest+, and Utility+.

0800 066 5832
www.guardianbuildingsystems.co.uk

Knauf Insulation launches first online condensation risk tool

Knauf Insulation has launched the industry's first online condensation risk analysis tool. It will save architects and specifiers time by enabling them to evaluate the risk of interstitial condensation and generate U-value calculations in less than five minutes.

"Interstitial condensation can result in rot or corrosion within the structure," explained Bradley Hirst, Technical Services Manager at Knauf Insulation. "So calculations evaluating this risk give architects and specifiers peace of mind that their design will not cause unintended damage to the building's fabric."

"The problem is they take time. We know architects and specifiers often do multiple U-value calculations for housing developments, but if they wanted to assess the risk of condensation, they needed to contact our technical team or enter the same data into previously downloaded third-party software. Then if they change the U-value they have to start the whole process again."

"By integrating a free condensation risk analysis calculator into our online U-value calculator, we have reduced a process that could take up to 24 hours to just a few minutes."

The condensation risk analysis tool is quick and easy to use. First, users need to generate the U-value by choosing from a range of typical build-ups and tweaking the data using drop-down menus to match their exact specification. They then have the option to analyse the risk of condensation.

Opening this function pre-populates the tool with the build-up and U-value data. Users then need to enter the postcode for the building location, which automatically identifies the country and the nearest available region for climatic data. Next, they select the property type from the dropdown menu. Once the risk of condensation has been calculated, users can view the boundary conditions (data used) and download the calculation, including the temperature data and dewpoint graphs.



When they close the tool, the condensation risk is automatically displayed alongside the U-value. If they then alter the build-up information within the U-value calculator, the risk of condensation will automatically be updated without needing to go back into the tool.

All calculations are performed in line with BS EN ISO13788 and follow the guidance in BS 5250: 2021 Code of Practice for the Management of Moisture in Buildings.

To try Knauf Insulation's free online condensation risk analysis calculator, visit www.knaufinsulation.co.uk/uvalue-calculator.

01744 766 666

technical.uk@knaufinsulation.com

ROCKWOOL® launches guide to BS 5422:2023

To support HVAC and building services professionals in meeting the latest thermal performance guidance, stone wool insulation manufacturer ROCKWOOL has released its Guide to BS 5422:2023. The new brochure clarifies recent changes to BS 5422, the technical guidance document covering thermal insulation of building services, and is available to download.

BS 5422:2023 presents updated specification recommendations for effective thermal insulation of pipework, ductwork and other building services equipment, covering a range of applications throughout commercial and domestic buildings. Changes to the guidance includes the removal of thermal performance for legacy materials, adjustments to the heating tables, and the change from 'National Class' reaction to fire to 'Euroclass' classifications.

The changes presented in BS 5422:2023, effective since 30 June 2023, give designers more stringent thermal performance targets in line with energy efficiency commitments and the route to net zero. The ROCKWOOL Guide to BS5422:2023 puts these changes



into context, with a clear breakdown of what each means to the designer, on top of providing application-specific advice and best practice. Specifically, the ROCKWOOL Guide to BS 5422:2023 explores:

- Changes to BS 5422 – an accessible breakdown of each change presented in the latest edition of BS 5422, and how the transitional arrangements are to be managed.
- Insulation guidance and best practice – an overview of how effective insulation can simultaneously provide thermal

performance, acoustic absorption and fire resistance in building services applications.

- Up-to-date thermal tables – putting all the new thermal tables in one place, enabling specifiers to review them in the context of the 2023 changes.
- Relevant ROCKWOOL solutions – the guide presents a series of relevant ROCKWOOL solutions which support designers in meeting the new standards for common building services applications.

While following BS 5422 guidance will not guarantee statutory compliance in every construction scenario, following the latest methodology will support building services professionals in effectively insulating their projects – and the new ROCKWOOL guide makes it easier to do so, while remaining mindful of wider specification guidance including Approved Document L. Visit the website to download the guide today.

01656 868 490 rockwool.link/bs5422

Vicaima revolutionizes customer support and service automation with its transformational AI chatbot

In an era where flexible working is increasingly the norm and technological advancement moves at an ever-increasing pace, Vicaima is proud to announce the launch of their new AI-driven knowledge base, Vicaima24/7. This innovative tool is not just a testament to Vicaima's commitment to customer-centric innovation but a leap forward in providing round-the-clock support and answers to customer queries.

Enhanced customer service

Vicaima24/7 stands out as a cutting-edge solution for providing continuous support and rapid responses to customer inquiries, considerably improving the user experience. This AI-driven tool is designed to seamlessly answer questions, guiding users to a wealth of information spread across installation instructions, maintenance advice, technical datasheets, and many other resources, thus ensuring customer queries are handled efficiently and effectively.

Service automation

Unlike static websites, Vicaima24/7 is a dynamic, evolving platform. It automates repetitive tasks and customer service processes, saving valuable time and resources. This evolution in service means that Vicaima can adapt to changing market needs and advancements in its own product and service offerings, ensuring that the information and support provided are always up-to-date and relevant.



24/7 availability

One of the standout features of Vicaima24/7 is its round-the-clock availability. Customers can access this service anytime, anywhere, which is crucial in a global market with varying time zones. This constant availability ensures that support is always at hand, even outside conventional office hours, thus enhancing the accessibility and convenience of customer support.

Efficient customer relationship management

Vicaima24/7 is more than just a chatbot; it's a tool for more efficient and personalized customer relationship management. By providing immediate and relevant responses, it helps build a stronger connection between Vicaima and its customers, fostering loyalty.

Adapting and enhancing through systematic updates

A crucial aspect of this new solution is its capacity for adaptation and enhancement, aligning with the evolving needs of our customers. While the core functionality of Vicaima24/7 depends on our meticulously curated knowledge base, our commitment goes beyond static information. We at Vicaima

are dedicated to systematically updating this base, ensuring that the information remains relevant, comprehensive, and in step with the latest developments in performance timber door systems and customer needs.

Parallel to these updates, the chatbot tool itself undergoes continuous improvements. These enhancements are not just in response to technological advancements in AI and chatbot functionalities, but also a reflection of our deep understanding of customer interactions and feedback. This dual approach of updating the knowledge base and refining the tool ensures that Vicaima24/7 remains a dynamic, responsive, and cutting-edge solution in customer support.

To experience the benefits of Vicaima24/7, simply visit www.vicaima.com (select United Kingdom version) and look for the bubble icon. Start a conversation by typing your query and receive immediate answers. For those who prefer spoken communication, a voice option is also available.


Vicaima24/7 is more than a chatbot; it's a symbol of Vicaima's unwavering dedication to customer satisfaction and technological excellence.

01793 532333 info@vicaima.com



vicaima

UNEXPECTED HARMONY



Security Door Solutions

Seeking innovative design and performance?

Knauf introduces plasterboard recycling scheme

Knauf UK and Ireland are pleased to announce their new partnership with Encore Environment to deliver an enhanced waste management service to reduce plasterboard waste. The landmark scheme looks to move towards a circular economy by taking waste plasterboard and reintroducing it to the local supply chain.

According to the Waste and Resources Action Programme (WRAP), plasterboard can make up to a third of all waste from a fit out. And with plasterboard banned from landfill, the need to effectively manage this waste is critical.

Knauf isn't new to plasterboard recycling, having pioneered a recycling partnership directly next to their Sittingbourne factory. "The existing factory and recycling service is fantastic. However, with this partnership we're able to really tap into on site recycling and



ensure as much goes back into the supply chain as possible." Explains Jon Watts, National Client Development Manager UK & Ireland.

Contractors that use Knauf products and opt into the Take Back Scheme will be connected to local and vetted recycling companies via Encore's nationwide network. These dedicated skips will be sent to their site and, once filled, are collected and brought to specialised local centres. "This is critical, we don't want plasterboard being taken all over the country. It's broken down locally and then gets distributed back to plasterboard manufacturers" continues Jon.

The latter process is critical to creating the basis of a circular economy. "We already have something similar at Sittingbourne for local contractors. The Encore partnership opens it up nationally."

The scheme also provides contractors with valuable insights into their waste management, as Jon elaborates: "As an industry we are always trying to find ways to improve waste management. The new Knauf Take Back Scheme offers our customers in-depth reports into their waste output. This includes project specific carbon data and insights into waste hotspots to promote future waste reduction improvements. This data is available via an online portal to make access easy. Our new Take Back scheme is aimed at promoting the increased use of a circular economy and reducing carbon through the remanufacture of materials while also



providing social value."

While this data reporting process is standard for Encore, this added insight will prove invaluable to Knauf to help the business meet its sustainability goals. Thanks to their expertise in waste management, Knauf can effectively start tracking circularity and design out waste for future projects.

What sets Encore Environment apart from traditional waste management services is their dedication not just to waste reduction, but social value too as Stacey Bee, Key Account Manager at Encore explains. "First and foremost we're a social enterprise. That means our efforts aren't just on reducing the number of skips on site by designing out waste, but by supporting local communities via our social value initiatives ProjectDIVERT and Waste Wise Kids. From donations to home-grown initiatives, it all supports the social value contribution of a site, while contributing to a company's ESG and sustainability credentials."

0800 521 050

[knauf.co.uk/our-services/knauf-take-back-scheme](https://www.knauf.co.uk/our-services/knauf-take-back-scheme)

Old meets new in the Cotswolds



Combining traditional craftsmanship with the latest building design techniques, this stunning property, set in the heart of the Cotswolds, comprises a period cottage with a contemporary extension built into the hillside. However, when the property is empty, such a remote location can cause concerns about security, prompting the client to specify shutters on all the windows and entrances. Naturally, when so much thought had gone into matching the old and new buildings, the aesthetic design was of paramount importance. By choosing Equilux security shutters from Charter Global Ltd they could be intelligently concealed within the honey-coloured Cotswold stone and when lowered, the anodised shutters' have a subtle matt silver finish which complements the natural choice of building materials. Installed at the time of build, the Equilux system incorporates a shutter within a structural lintel, providing an unobtrusive structurally integrated solution that still addresses the usual features of lintel design, but has the added benefit of acting as a high security shutter. The bespoke security shutters have been integrated into the property's Building Management System.

0845 050 8705 www.charter-global.com

Marmox Thermoblocks specified on Wigan PassivHaus development



The final phase of a PassivHaus development is just getting under way in Wigan with high performance Thermoblocks from the range of Marmox being used to counter cold bridging beneath a highly insulated timber frame construction. The St. Mary's project is being under taken for Wigan Metropolitan Borough Council by principal contractor, Tyson Construction with Pozzoni Architecture being the lead architectural consultant and BTP Architects gilling the roll of specialist PassivHaus assessor. All of the Thermoblocks in 100 mm and 140 mm widths, along with boxes of the special Marmox 360 adhesive are being supplied by Travis Perkin's Blackpool branch. The scheme to provide much needed affordable and easy to heat new homes has been part-funded by the Government's Department for Levelling Up, Housing & Communities. When complete the development will provide eight one-bed apartments, nine two bed houses and ten three bed houses, plus a further four with four bedrooms. There will also be 16 one and two bedroom bungalows.

sales@marmox.co.uk www.marmox.co.uk

Titon wins Domestic Ventilation Product of the Year at Energy Saving Awards



Titon is thrilled to announce that its newest MVHR unit, the HRV4.25 Q Plus, has won the Domestic Ventilation Product of the Year category at the Energy Saving Awards 2023. The Energy Saving Awards celebrate the very best professionals, products and projects across the Plumbing, HVAC and Energy Management sectors. The awards were created to acknowledge the important work that has been achieved by manufacturers, installers, contractors, suppliers and organisations to reduce carbon emissions and become more energy efficient. The HRV4.25 MVHR unit is part of the new HRV4 Q Plus Range and boasts cutting-edge technology and exceptional energy efficiency capabilities, making it an industry leader in sustainable ventilation solutions. One of the standout features of the HRV4 Q Plus Range is its highly efficient heat exchanger, achieving up to 91% heat recovery. This outstanding recovery not only ensures superior ventilation but also aids in reducing energy consumption and associated costs. The Energy Saving Awards panel acknowledged the HRV4.25 MVHR unit for its outstanding contribution to energy efficiency and environmental sustainability.

0800 970 4190 titon.com/biglittlemvhr

Builder hails benefits of West Fraser panels



An experienced carpenter and builder has taken to social media to demonstrate the speed and efficiency of installing West Fraser's CaberDek, as well as the manufacturer's SterlingOSB Zero. Steve Mayes commented: "The SterlingOSB Zero is being used to conform to the structural engineer's requirements. Then to install the CaberDek across the joists, we are using the CaberFix glue and 50 mm ring shank nails to make sure there are no squeaks; the adhesive is applied to the tongue and groove joints as

well. We particularly like the ruggedness of the boards which means you don't get any damage to the edges when you are pulling them up over the scaffolding, like you do with some makes, slowing things up."

uk.westfraser.com

BRAND NEW CPD FROM LEVIAT



Leviat's latest CPD seminar, 'Considered Facade Solutions for Complex Applications' helps specifiers and building professionals understand the complex issues that can arise when designing masonry facades – crucial in order to keep control over the design process and to keep within budgeted construction costs.

On 21 November, Sara Dawes, one of the Regional Technical Sales Managers at Leviat, delves deeper into wall ties, damp proof coursing, large cavities, pier arrangements, as well as other slab zone components, and how they can impact the design of masonry support systems.

0114 275 5224 cpd.uk@leviat.com

Oxford College's facility fire protected using 9 mm Magply



The alterations and refurbishment of the SCR, Dining Hall and Kitchen at Trinity College Oxford are nearing completion with 9 mm and 12 mm Magply boards from the range of IPP Ltd, having been specified to provide the necessary fire compartmentation, as well as other performance benefits. The work to fit out the kitchen, bar, offices, fully accessible toilets and ancillary areas is being undertaken by Savvy Construction, from nearby Horspath, while Original Field of Architecture is the architectural practice responsible for the design work. This has included using two layers of the A1 rated, non-combustible Magply to clad either side of timber studwork in order to create a half hour separation and provide compartmentation for a single storey staff sitting room. Independently tested to demonstrate they offer A1 non-combustible performance, Magply boards are routinely specified in place of OSB and plywood as a sheathing for steel framed high-rise properties, as well as in flat and pitched roof construction. With an ultra-low 0.01% chloride content, the stability and durability of Magply sees it recommended as a backer board for proprietary render systems.

01621 776252 www.magply.co.uk

12mm Magply Boards ensure sustainable SIPs panel passes fire test



IPP Ltd.'s widely specified Magply Boards have been successfully employed by the Surrey based manufacturer of an innovative new Structural Insulated Panel – or Bio-SIP™ system – in order to achieve compliance with EN-1365-1 and demonstrate the environmentally produced solution can be utilised for even more types of construction. Qube Building was established in 2021 to create small and versatile habitable structures which have been utilised as garden studios, forest lodges, pool changing rooms, gymnasiums and for other applications with performance and demountability at their heart. Crucially, its Bio-SIP™ panel system is able to match the coveted PassivHaus standard and has now undergone further evolution to incorporate the ArmaPETR Eco50 insulation from Armacell. This is produced from 100% recycled material, including waste plastic and has recently been awarded Environmental Product Declaration (EPD) status with a Global Warming Potential of 23.2 Kg/CO₂ eq/m³. Qube Building's Director, Justin Murray explained: "The Bio-SIP™ system offers unique innovation in sustainable modular building systems with unmatched thermal stability."

01621 776252 www.magply.co.uk

Future-proof your residential facade

Mark Snowden from Rockpanel outlines the benefits of ventilated facades, why their specification can help ensure the wellbeing of occupants and how substandard external cladding systems can lead to hidden costs and uninsurability

2017 marked a defining moment in the public's consciousness regarding the fire safety of materials and systems used in the external cladding of new and renovated high-rise structures. It also brought into stark focus issues concerning compliance with and interpretation of fire and building regulations and how they impact on the materials originally specified for a project compared to what was, in reality, used.

In England, changes to fire regulations regarding residential buildings over 18 metres made it mandatory that all components in the external wall meet or exceed EN13501 Class A2-s1,d0, with guidance that those of 11 metres also adhere to the same specification.

Increasingly, the proposed use of some cladding systems, be they substandard in terms of fire-safety or inferior surface quality and shorter product life, can lead to difficulties in securing funding, issues with building insurance, future maintenance and replacement costs, impacting both residents and property owners.

WHAT IS A VENTILATED FACADE?

A ventilated facade is a construction with an air gap between the insulation and the cladding. It protects a building against the elements while at the same time helping maintain a healthy indoor climate. This type of external cladding offers many advantages. A ventilated facade is lighter and quicker to install than other options, leading to savings in construction costs and minimise disruption to residents. Individual panels can also be dismantled for maintenance and the whole facade can easily be replaced, reducing inconvenience to the building's inhabitants.

Once in place, a ventilated facade reduces the direct solar impact on the building, resulting in a healthier indoor climate. It also offers thermal insulation, which contributes to energy efficiency and acts to reduce the impact of exterior noise on those within. Ventilating cladding also affords architects and specifiers opportunities to use colour and other surface designs to create facades not achievable with other alternatives. Realistic interpretations of wood, steel and stone are available along with RAL-matched colour and an ingenious design which changes colour depending on how light hits its surface.

THE EUROCLASS SYSTEM

Euroclass represents the most comprehensive and up-to-date standards system regarding reaction to fire. It compares ignitability, flame spread, heat release, smoke production and propensity for producing flaming droplets/particles etc. Within this system each classification means that, for a product tested within a certain end-use situation, specific parameters are achieved. For example, with relevance to an A2 rating, all of the tests for previous classification levels are completed, plus a test for the calorific content.

CONSIDERING THE SYSTEM AS A WHOLE

In order to be confident that a facade adheres to the highest fire safety performance, it is vital to view the characteristics of its construction as a whole – from panels and sub-frame, through to the insulation used and the design of cavity compartmentation, fire barriers, fixings and all other components.



ARRIVING AT AN AGREED SOLUTION

Ideally, with any recladding project, a feasibility programme is instigated to explore design options and to consult with stakeholders, residents and other interested parties to arrive at a jointly agreed solution. A resident committee member commented about one of the projects depicted here: “The consultation process was very democratic. Regular meetings were held to discuss the plans and progress with due diligence given to every aspect of the materials and installation. We are very pleased with the results and know surrounding residents are envious, with some assuming the three blocks are complete new builds.”

In relation to this project, residents were shown examples of the proposed materials, with tenants and landlords able to visit an on-site space where they could view samples, gather information and build confidence in the renovation scheme. Tenant and council meetings were also held where the fire resistant properties of the proposed materials were demonstrated.

Two projects where sustainable and non-combustible ventilated facades have been used to great effect in the complete recladding of residential blocks, a development of three in London and a similar grouping in Manchester, delivering future-proof transformation for the hundreds of homes within.

Planning approval for The Manchester project was made considerably easier due to the wide range of surface designs available, enabling close matching of the cladding to be replaced.

For the London properties, the panels have a unique appearance which reflects in such a way that, depending on the angle light hits its surface and the point of view, a changing spectrum of colour tones are visible. Due to an innovative and unique crystal effect layer, it transforms any building into an eye-catching structure that is constantly transforming, impactful and inspiring.

Mark Snowden is business manager for the UK and Ireland at Rockpanel

Titan Lite deals with 200mm movement range at Amazon Data Centre



One of FIREFLY's regular customers is currently making use of Titan Lite™ 120:60 fire barriers to create compartmentations to protect multiple zones within a huge new Amazon Data Centre at Hemel Hempstead, where the possible degree of structural movement predicted for the building prevented the manufacturer's competitors from offering a viable solution. Amersham based GSI Contract Services Ltd. is approximately halfway through a year-long specialist sub-contract for TSL, installing the high-performance Titan Lite™ 120:60 along all of the floor and roof junctions to the internal partitions, providing both integrity and insulation while accommodating relative movement of +/- 200 mm. FIREFLY's area Technical Sales Manager, Andy Greenwood, was closely involved in offering advice on the specification and supplying project specific installation details. Site training of GSI's operatives has also been delivered. FIREFLY Titan Lite™ 120:60 has been developed as a flexible fire barrier to provide compartmentation of larger concealed spaces within different types of buildings including factories, warehouses, healthcare facilities and even railway stations.

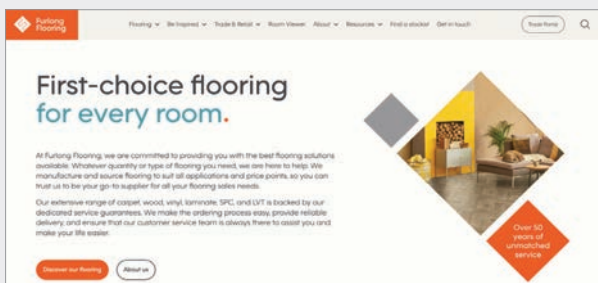
01706 758817 tbafirefly.com

Triton Systems used in underpinning old Kent water mill



One of Triton Systems most experienced installers has employed a package of its waterproofing products, while carrying technically challenging improvements to the basement and substructure of a 19th century watermill in Kent. Archer Specialist Treatments was called in by the South African based owner of the scenic residential property near Ashford, owing to it suffering continuing problems of water ingress as the floor level lies nearly two metres below the surface of the old mill pond. Paul Halliwell said: "Archer Treatments is a family run business which has been trading successfully for 35 years – working from Chichester on the South Coast across to Canterbury and taking in much of London. In the two decades or more we've been using Triton, we have come to depend on the product range's quality and reliability for all types of residential projects in different ground conditions. On a regular basis we employ their cavity drain systems – the TM3, CM8 and CM20 – the injection chemicals for damp-proofing and the TT55 cementitious waterproofing additive as well as the fungal and dry rot chemicals. It is a very good relationship we have with the company."

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Furlong Flooring launches new website

Furlong Flooring is delighted to announce the launch of its brand new website – furlongflooring.com. Featuring outstanding design, content and functionality this new online resource offers comprehensive information about its innovative and trusted flooring solutions. The new website has been redesigned and rebuilt on a new technology platform. With a fresher, modern look and feel, the website features new functionalities and content, and sections dedicated to new products and innovations. In addition, a 'Room Viewer' visualisation tool is designed to allow people to see exactly what each type of flooring will look like in their own rooms or offices. The new website presents and categorises Furlong's extensive flooring range which includes new and updated collections and product offerings. This includes the ground-breaking new EcoSense range of 100% recycled yarn carpets, and the luxury Beyond Wool® ranges to give customers more choice than ever before. Other new flooring products include durable and easy-to-clean vinyl flooring options with stylish designs and enhanced slip resistance, making them ideal for busy households and commercial spaces. There's also a wealth of useful information and resources for retailers, housebuilders and flooring contractors.

01322 628700 furlongflooring.com

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Beauflor for better floors in social housing



Beauflor® manufactures affordable, durable and easy to maintain sheet vinyl floors that can help landlords, associations and other providers of social housing to ensure tenants benefit from the wellbeing advantages of floor coverings.

There is a growing amount of research that highlights the benefits on tenant wellbeing through the provision of floor coverings within social housing, and in the case of the Welsh Housing Quality Standard (WHQS), this has forced regulatory change. WHQS now demands that social housing should have suitable floor coverings at change of tenancy.

Whether this will become the case in England and Scotland where regulations place no such standards on flooring remains to be seen. But social housing landlords looking to provide their tenants with a safe home that supports their wellbeing could do well to follow the model for all projects, regardless of location.

Currently, it's estimated that around 80% of social homes are rented to tenants without floor coverings. Landlords are often concerned with the health and safety issues that may arise from leaving carpets in place (carpets account for 50% of all social housing floors). However with many tenants not having the capability to fund new floors, they often end up struggling with debt through loans or living on bare floors for months or years throughout their tenancy.

With sheet vinyl flooring there is an opportunity to provide tenants with floor coverings without having to replace them at tenancy voids, saving cost while also providing tenants with a standard of home that increases well-being and minimises ill health. In addition, providing flooring can reduce the chance of loneliness and isolation as tenants will feel proud to have people to visit their home.

Made in Belgium, Beauflor sheet vinyl flooring offers an affordable and attractive finish across a wide range of popular natural looks with benefits that include easy installation, durability

and low maintenance. In many domestic rooms Beauflor sheet vinyl floor can be laid without glue, cutting down on material costs and time. The benefits of fast installation are made even more apparent in floors that feature a textile backing, such as the Blacktex collection. These can be installed loose lay in areas up to 35 m² over a range of substrates, including tile and timber floors, making them a good choice for refurbishment.

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www.beauflor.com



SuperPhon panels provide reverberation control at new school

CMS Danskin Acoustics' SuperPhon panels are contributing to reverberation control at a newly built school in East Hertfordshire, helping to ensure standards for acoustics in new school buildings are met.

Buntingford First School is a school for around 330 children between the ages of three and nine, which opened for the 2023 autumn term. Built to Passivhaus standards by Morgan Sindall Construction for Hertfordshire County Council, the 1,643 sqm school includes a nursery and ten classrooms.

During construction 175 SuperPhon panels of varying sizes and colours were installed by SCL Interiors, mainly on classroom walls, to absorb sound and provide reverberation control.

SuperPhon provides up to Class 'A' acoustic performance and has a Noise Reduction Coefficient from 0.80 to 1.15 – an NRC of 0 indicating perfect reflection and an NRC of 1 indicating perfect absorption. The sound



absorption coefficient is tested to BS EN ISO 354:2003.

New school buildings must satisfy the requirements of Section 1 of Building Bulletin 93 (BB93) – setting out the constructional standard for acoustics in new school buildings.

SuperPhon is available in standard sizes, thicknesses and finishes, including wipe clean and art panels, but also as bespoke panels in terms of size, thickness, shape or fabric facing. Designed for use in applications, including recording/rehearsal studios, audiology



rooms, cinemas and theatres, schools, call centres and conference rooms, SuperPhon has been installed at the Liverpool Academy, Edinburgh Observatory, Jodrell Bank and the Hydro Arena in Glasgow.

CMS Danskin Acoustics, part of SIG plc, provides a free reverberation calculation service as well as full technical and on-site support. The panels are manufactured at their Warrington site.

01925 577711
www.cmsdanskin.co.uk

Bjelin unveils striking Contrast Collection

Bjelin has launched a new range for the UK market within its revolutionary hardened wood flooring portfolio.

The new Contrast Collection comprises a palette of five different colourways – Desert, Vapor, Silver, Ivory and Granite. These leverage the existing hues and tones within the wood to create stunning contrasts, while blending with the existing hardened wood 3.0 range. The new range is available in the XL size in Spačva oak. This type of oak, which is sustainably sourced from Croatia with FSC certification, is renowned for its stunning beauty and distinctive grain.

This vibrant new range was created through the fusion of technology and ageless craftsmanship and suits both residential and heavy-traffic commercial environments.

Utilising its access to the state-of-the-art R&D department belonging to sister company Välinge Innovation, Bjelin has pioneered a cutting-edge approach to enhancing the wood's natural structure. The ground-breaking Woodura™ surface technology brings hardened wood floors to life, making it possible to use a sophisticated array of nine precision-engineered brushes to seamlessly integrate contrasting pigments into the surface, highlighting the natural grain of the oak.

Woodura™ surface technology makes hardened wood floors three times stronger than traditional engineered wood options, giving enhanced resistance to water and dents. When it is combined with the leakproof 5G Dry™ floor locking system, the Contrast Collection ensures



lasting durability and boasts a superior class 33 pro matt lacquer – Bjelin's toughest to date.

"This striking collection gives both commercial and residential users a new and exciting option," says Simon Darbyshire, managing director of Välinge Innovation UK Ltd. "Our hardened wood flooring products

are already generating widespread interest. The new Contrast range redefines the game in residential and commercial design, injecting a sleek, tech-savvy edge that screams innovation."

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www.bjelin.com

All-round protection: The safe shower for secure settings

In safety-critical settings like mental health, secure prisons, and some supported housing facilities, prioritising user wellbeing and minimising harm is crucial. Horne's showers excel here, offering highly robust, pre-plumbed units uniquely specialised for challenging behaviours and environments.

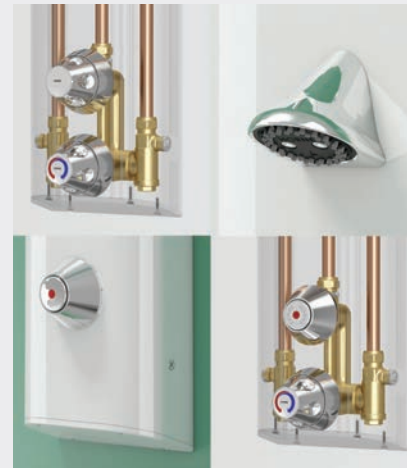
Built with a tough aluminium casing, Horne showers are engineered to withstand both accidental damage and intentional abuse, protecting internal components (user interference) and users from potential harm (burn risk from hot water supply pipe). Shower heads and controls are crafted from robust brass and die-cast zinc, and are designed with optimised geometries to mitigate the risk of self-harm, specifically via ligature.

At the heart of every design is its thermostatic control valve, a technology that Horne invented in the 1920s. Approved for demanding healthcare applications,

the integral mixing valve ensures safe, reliable, and consistent water temperatures, irrespective of water system fluctuations. A comfortable shower experience not only enhances user satisfaction but further deters interference and vandalism.

Testament to the above, Horne showers were selected by the Ministry of Justice for their Decency Showers Programme, aimed at enhancing shower facilities to improve dignity and welfare for prisoners. Horne has already supplied over 600 of their LR, ligature resistant units, with various flow control options, to multiple UK prison sites as part of this initiative.

Further advantages include off-site fabrication, with rigorous pressure and performance testing, enabling quick and straightforward installation. To maximise lifetime value and operational longevity, Horne designs also prioritise easy maintenance, and low-cost spare parts and comprehensive training resources further



assist a prolonged and sustainable installation.

By prioritising user safety, equipment durability, resource and budgetary considerations, Horne's showers prove an indispensable asset for secure facilities seeking to enhance safety and wellbeing while optimising resources.

sales@horne.co.uk
b.link/SafeSecure

Luceco's complete lighting solutions package at Springpack!

Luceco has supplied a comprehensive lighting solution to Springpack, an eco-friendly packaging provider who has recently completed a state-of-the-art warehouse relocation.

Such an environmentally focused business required cost effective energy efficient lighting, Luceco supplied a host of luminaires including over 250 Elara Bays illuminating the warehouse alongside recessed modular LuxPanels on mezzanine floors where ceiling grids were available and linear IP65 rated Climate Extra luminaires. Elara is an LED low bay with a fastfix gear tray and an IK10 high-impact resistant steel body. With polycarbonate lenses, Elara Bay is suitable for surface, trunking, or suspended mount installation, offering a truly flexible solution for warehousing and industrial settings.

Contemporary runs of Contour suspended linear luminaires along with Platinum Mini, Element and Platinum Surface downlights were also installed creating beautifully lit



environments whilst offering occupant friendly and practical lighting in office and circulation spaces. The Contour lighting system consists of connectable modules that can be surface mounted, suspended or recessed forming contemporary, decorative, and highly effective illumination.

With the emphasis on Springpack's workplace well-being ethics, Luceco's Leren

lighting system was installed in the state of the art gym facility offering a modern, flexible environment for employees to work out as well as relax in breakout spaces. Leren offers both upward and downward light distribution, particularly where there are high or open ceiling voids to illuminate. Supplied complete with adjustable wire suspensions, Leren benefits from through-wiring, including electrical connectors as standard, to assist with both standalone and continuous run installations. Accessories available include ceiling mount electrical connection rose and blanking modules in 600, 900, 1,200 and 1,500 mm lengths.

Circulation areas were illuminated with a range of luminaires including Celeste, a circular decorative bulkhead style fitting, with a direct/indirect light distribution offering up to 100,000 hours working life, and Contour Wall was installed in stairwells.

01952 238100 www.luceco.com/uk

ROCKWOOL® launches guide to BS 5422:2023

To support HVAC and building services professionals in meeting the latest thermal performance guidance, stone wool insulation manufacturer ROCKWOOL has released its Guide to BS 5422:2023. The new brochure clarifies recent changes to BS 5422, the technical guidance document covering thermal insulation of building services, and is available to download.

BS 5422:2023 presents updated specification recommendations for effective thermal insulation of pipework, ductwork and other building services equipment, covering a range of applications throughout commercial and domestic buildings. Changes to the guidance includes the removal of thermal performance for legacy materials, adjustments to the heating tables, and the change from 'National Class' reaction to fire to 'Euroclass' classifications.

The changes presented in BS 5422:2023, effective since 30 June 2023, give designers more stringent thermal performance targets in line with energy efficiency commitments and the route to net zero. The ROCKWOOL Guide to BS5422:2023 puts these changes



into context, with a clear breakdown of what each means to the designer, on top of providing application-specific advice and best practice. Specifically, the ROCKWOOL Guide to BS 5422:2023 explores:

- Changes to BS 5422 – an accessible breakdown of each change presented in the latest edition of BS 5422, and how the transitional arrangements are to be managed.
- Insulation guidance and best practice – an overview of how effective insulation can simultaneously provide thermal

performance, acoustic absorption and fire resistance in building services applications.

- Up-to-date thermal tables – putting all the new thermal tables in one place, enabling specifiers to review them in the context of the 2023 changes.
- Relevant ROCKWOOL solutions – the guide presents a series of relevant ROCKWOOL solutions which support designers in meeting the new standards for common building services applications.

While following BS 5422 guidance will not guarantee statutory compliance in every construction scenario, following the latest methodology will support building services professionals in effectively insulating their projects – and the new ROCKWOOL guide makes it easier to do so, while remaining mindful of wider specification guidance including Approved Document L. Visit the website to download the guide today.

01656 868 490 rockwool.link/bs5422

Zentia expands horizons with the grand opening of its Gateshead Innovation Centre

Zentia, one of the UK's market leaders in complete ceiling solutions, is excited to announce the grand opening of its Innovation Centre in Gateshead, created to contribute to the growing vibrancy of the North East as a national hub for architects and specifiers seeking inspiration and industry networking.

Zentia, previously part of Armstrong Ceiling Solutions, faced a significant rebranding in 2020 to separate itself as an innovative, quality brand. Zentia continues to offer the same high-quality products, but builds on its digital approach, and works to continually strengthen partnerships, connections and communication.

As a part of Zentia's mission for strengthening connections, it has created an Innovation Centre at its grid plant on the Team Valley site. It features a large conference space that can accommodate up to 60 people and is equipped with AV facilities for presentations, as well as a thoughtfully



designed ceiling grid that displays Zentia's latest product innovations. The centre also has two smaller meeting spaces that can accommodate six and 10 people.

The Mayor of Gateshead, Councillor Eileen McMaster, officially opened the Innovation Centre in early December,

signifying its importance as a regional and national milestone.

Graham Taylor, sales and marketing director at Zentia said: "We are excited to open our new innovation centre and provide architects and specifiers with a space to experience our products in a real-world setting. We believe that this centre will provide a space where architects and specifiers can come to learn about our products and how they can be used to create acoustically comfortable and visually appealing spaces."

Mayor of Gateshead, Councillor Eileen McMaster, said: "Zentia's new Innovation Centre is a fantastic facility and a testament to the company's significant investment in the Gateshead area. It's amazing to see a UK manufacturer creating local job opportunities for our communities and I'm confident that this will open up lots more opportunities for Zentia."

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Avoid failures in bathrooms and wetrooms with BAL Waterproof 1C

When tiling in wet areas such as bathrooms, showers, wetrooms, pools, etc. it is vital to make the correct product selection to avoid costly failures.

Ensuring your wetroom, bathroom or shower installation is fully waterproof is perhaps the most important part of any developer's work, because tiles, tile adhesive and tile grout on their own will not inherently protect against water damage.

Did you know that the British Standards (BS 5385) and NHBC Standards 2023 both state, that in wet areas or areas of repeated or persistent wetting, backing surfaces should be protected by a suitable tanking system.

BS 5385 Part 4 states that the use of a ceramic tile together with an impervious tile grout and tile adhesive are NOT a substitute for a tanked or waterproofed bath, shower or wet room installation. The effects of water damage are well known and documented.

Therefore, using a suitable waterproofing (or tanking) product – such as new BAL Waterproof 1C – is a prerequisite for a wet room installation, either within the building structures or ideally on the substrate surface prior to the application of ceramic or natural stone tiles.

Waterproofing on the substrate surface is often ideal as this ensures water is prevented from tracking through a screed for example into other areas.



In a wet room, waterproofing should be specified on both walls and floors.

Available now, BAL Waterproof 1C is a ready-mixed tanking solution that can be used without priming on most common substrates* and is ready to tile after only two hours!

Formulated with fibre-strand technology

for improved strength, it can be applied in one-coat on walls and floors with a brush, roller or 4mm notched trowel.

No additional tapes or matting are needed as it is crack-bridging from 2-3mm.

01782 591100 www.bal-adhesives.com

Acoustic floor build-up ensures student accommodation exceeds document E standards

CMS Danskin Acoustics has worked with acoustic consultants Atelier Crescendo to arrive at a floor build-up which has contributed to achieving acoustic performance significantly exceeding Approved Document E 'Resistance to the passage of sound' 2003 standards at new student accommodation for St Catharine's College in Cambridge.

The accommodation provides two new houses and communal spaces for students to work and socialise. The project was designed by Cottrell & Vermeulen Architecture, and the main contractor was Conamar Building Services. Designed with sustainability in mind, the student accommodation has mass timber frames (mostly Cross Laminated Timber), triple-glazed windows and air-source heat pumps.

Internal base floors are cross laminated timber (CLT), which supports the sustainable ethos behind the design. CLT is increasingly used as it helps in locking

away carbon by using it as a long-term construction base and it reduces the use of concrete in floors. However, because CLT is around one third of the mass of concrete, it presents challenges acoustically. Its sound reduction index is poorer and its damping properties from impacts are also lower than concrete, therefore it requires an acoustic strategy to limit impact and airborne sound travelling through.

After taking into account the BREEM® requirements, the criteria to be met for St Catharine's was that the airborne noise reduction must be over 48 dB DnTw and the impact noise must be measured as under 59 dB LnTw.

CMS Danskin Acoustics designed and supplied a floor/ceiling build-up using recycled materials to help improve the floor mass and enhance its impact absorbing properties. The strategy involved double REGUPOL impact isolation layers. Layers of 3 mm REGUPOL sonus eco, 18 mm Versapanel® from Euroform



and 15 mm REGUPOL sonus core were used to isolate impact sound, followed by a 32 mm Smartspan, which is finished with a timber floorboard or plywood underlay with vinyl.

CMS Danskin Acoustics also specified and supplied Kinetics IsoGrid hangers, a high performance hanger used for suspending ceilings where the maximum noise reduction performance is required.

01925 577711 www.cmsdanskin.co.uk

Vicaima opens the door to fresh inspirations for construction in the AI era



It's a common exercise in any sector of activity – to foresee macro-trends, understand phenomena and draw up plans to respond to those same expectations of a future that is always more innovative, challenging and non-linear. The complementary worlds of architecture, construction and design are no exception and are the forerunners of boldness and disruption of norms, an attitude that brings them closer to the frontier between the beauty of evolution and the power of change.

As one of Europe's major players in the design and production of cutting-edge solutions for interior doors, technical doors, frames, wardrobes, panels and furniture pieces, Vicaima identifies some of the focal priorities that are already being followed by professionals in the field and whose relevance is expected to increase this year.

One point will be common to all sectors – the transformative power of artificial intelligence (AI). Whether for interior design and decoration or in construction processes and software, disruptive technologies will have an influence on the efficiency within the different phases of a project, from the generation of 3D models, integrated project management or the selection of decorative elements, enhancing the creativity and uniqueness of spaces by combining the analytical capacity of digital tools with the aesthetic and functional sensitivity of the human insight.

How can we go even further and understand what lines will shape the future of these sectors? Let's go through, in detail, the features, concepts and movements that promise to make 2024 a transformative era.

SUSTAINABILITY FACTORS WILL CONTINUE TO PLAY AN ESSENTIAL ROLE

This year, sustainability will play a role in more than the choice of a decorative product, through elements that reflect the appreciation of local culture, proximity to communities and consideration for future generations.

In the construction sector, the inclusion of products with FSC® (Forest Stewardship Council®) certification, the organization that

promotes responsible forest management, is almost a prerequisite, as specifiers seek to look beyond, sourcing and specifying products from organisations who take a more holistic approach to their ESG (Environment, Social and Corporate Governance) obligations.

In addition, the rehabilitation of existing buildings will become even more important, adding to the value that restoring historical heritage can bring. In the interiors, thermal insulation will be one of the key factors in reducing energy consumption, while guaranteeing comfort for users, maintaining the constant priority of natural lighting for users by providing a warm and appealing environment.

At the same time, acoustic insulation will also be relevant, an important factor when silence is the most audible response to today's demand for tranquility and comfort. Among several growing sectors, 2024 foresees an increase in university residences, which are increasingly necessary in urban centers, where soundproofing is essential for the comfort of young people who use these places to study and work.

DOORS AS A FUNDAMENTAL ELEMENT OF PERSONALIZATION

The selection of styles, tones and surfaces has risen to an archetype that promises to become the next design revolution. Today, there is a growing demand for doors with customized designs and finishes adapted to specific needs and aesthetics, a factor leveraged by AI when it comes to analyzing data, lifestyles and preferences.

In this panorama, the authenticity of the choices promises to be revealed in the choice of door finishes, developing surfaces in which texture can be the differentiating factor. Among Vicaima's wide range of options, this creative wave is already reflected in the Dekordor® 3D range of door finishes, which stand out for their modern look and pronounced texture. In total, it offers an exquisite palette of fifteen on-trend designs, in light and dark tones.

In fact, it's precisely the effect of tone and colour that reigns in highly customized

projects, as Pantone's choice for 2024, Peach Fuzz, translates in all its essence, which can stand out as a differentiator in any decor. A true invitation to the smooth and profound assimilation of welcoming spaces, symptomatic of the contemporary dynamism that embraces historical tradition with vibrant brushstrokes for a perfect canvas of what tomorrow might look like.

In 2024, spaces will be increasingly "ours", mirroring the personality of those who use them. In buildings designed for housing, hotels, commercial services, healthcare or schools, the details that emanate a familiar and welcoming feeling will be highlighted. For projects looking to develop settings with a tailor-made concept, one of Vicaima's many solutions can be found in the Wardrobe Transform range – a highly personalized offer that appeals to the senses and imagination of customers looking for a touch of exclusivity.

NEW THEMED PROJECTS EMERGING, FROM HOTELS TO HOMES

Rooms associated with an iconic character from a movie or an animated element from a TV series are a throwback to a nostalgic childhood, but they are freeing themselves up as inspiration for themed projects, a growing trend in which physical spaces are also a feeling. Not only in housing, but also in the hotel sector, designs evocative of literature, elements of nature or cities will be less and less uncommon. Creativity will continue to blur boundaries, driving disruption in a new dimension of interior design that is very much present in the Vicaima Infinity line.

In an era defined by AI, the different trends indicate that emotion will not cease to exist, but will prove increasingly decisive, responding to the demand for authenticity and connection. As a whole, these are the building blocks for architecture, construction and decoration that will continue to create modern and attractive spaces with sustainability and uniqueness.

01793 532 333
www.vicaima.com

Zentia introduces the Oplia product family: A bright horizon for ceiling tile solutions



Zentia, one of the UK's market leaders in complete ceiling solutions, proudly announces the launch of 'Oplia,' the latest family addition to its product portfolio. Formerly recognised as Perla, the renaming reflects Zentia's commitment to pushing the boundaries of design and functionality in ceiling tiles.

The range, launched on the 10th January, offers a diverse set of visual and acoustic solutions for interior spaces. All tiles within the range have a smooth, laminated finish for a sleek aesthetic. Oplia hA dB, Oplia hA and Oplia hA+ offer excellent sound absorption, Oplia hA dB and Oplia dB offer impressive sound attenuation properties, and alongside Oplia Triangles the range provides the ideal solution for a wide spectrum of communal interiors such as offices and classrooms.

Alongside white, 34 new exciting colours have been added to the range to experiment with design, create defined zones and assist

with wayfinding. Each tile has a high light reflectance of 86% and extremely low Volatile Organic Compound (VOC) content, offering overall enhanced health, wellbeing and productivity for the end user.

The Oplia dB tile delivers an enhanced sound attenuation performance of 41dB, reducing the sound between adjacent spaces, and making it a great addition for private offices and boardrooms, or multi-let buildings. Alternatively, the Oplia hA dB is an ideal solution for flexible working spaces, with excellent levels of sound absorption and sound attenuation in one tile.

Also, within the new product family, the Oplia hA tile provides a Class A sound absorption rating and performs best in open-plan areas such as libraries and cafeterias. The Oplia hA+ tile has the highest possible α_w coefficient of 1.00 and has been designed for areas that require enhanced focus and concentration, with the light

reflectance improving interior light levels, diminishing artificial light reflectance and enhancing user wellbeing.

Lastly, the Oplia Triangle tile system offers additional design freedom, formed with interlocking isosceles triangles, which when combined with our choice of 34 additional standard colours, can add a very striking and impactful visual element to any project's interior.

Graham Taylor, Director, Sales & Marketing at Zentia commented on the launch: "The introduction of Oplia signifies our ongoing commitment to redefining the possibilities within ceiling tile solutions. With a renewed focus on amazing aesthetics and acoustic excellence, the new Oplia family offers a great canvas for architects and designers to innovate and create inspiring spaces."

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Take design up a level

Staircases are fundamental to the flow and functionality of a home. Richard Harding of British Spirals & Castings discusses what to consider when choosing a design for your property

Staircases are situated at the heart of many homes, and are often one of the first things you see when you open the front door. Despite their prominence, it's surprising how often these features are almost an afterthought in the design process. By giving some careful thought to your staircase at the start of your project, you can not only achieve an aesthetic which is tailored to your taste, but also optimise the flow and sizing of the spaces across your home.

The most fundamental decision when selecting a staircase is its style and layout. This will impact both the footprint of the staircase, the size and the dimension of the opening needed on the upper floor. There are a range of staircase styles available which can suit different homes.

STRAIGHT

Straight staircases are the most common choice for homes of all sizes. Their long linear footprint makes them a good option for narrow halls, but they can equally work well as a statement piece when centralised in wider spaces.

KITED & COMBINATION

These add a quarter turn at either the foot or head of a straight staircase (or both). These turns reduce the linear length of the staircase – making them a good option for more rectangular hall spaces.

The quarter turns can also provide clear benefits for loft conversions, helping to minimise any loss of living space at the foot of the staircase and ensuring the upper steps run out into the centre of the attic, allowing you to maintain the minimum headroom of at least 2 metres beneath pitched roofs.



HALF-TURN

As their name suggests, these staircases incorporate a full half-turn at the mid-point of a straight staircase. In addition to creating a more rectangular footprint, this mid-level landing can also act as a resting spot for occupants or even a display area for favourite decorative pieces.

SPIRAL

Winding around a central pillar, spiral stairs provide a solution when you need to keep the footprint of the staircase to an absolute minimum. This is not only beneficial when overall floorspace is limited, but also provides a great option if the staircase sits in an open-plan space,

making a beautiful talking point.

HELICAL

Helical staircases feature a flowing curve but without a central pillar. This means the radius of the curve can be adjusted to your preference, either providing a gentle curve with a linear footprint or a tighter turn similar to a spiral design.

A bespoke manufacturer or joiner can also work with you to develop designs which may combine different elements of one or more of these styles. This can be particularly beneficial where you need to work around obstructions in an existing space such as the location of doors, fixed furniture or the pitch of a roof.

To ensure the staircase is safe and easy to walk up, it is recommended that the maximum pitch for straight stairs is 42 degrees



FINE-TUNING THE DESIGN

With each staircase layout, there is significant scope to tailor the design to ensure it works well within your home and meets your practical requirements. These include adjusting the width of the treads to provide more space for occupants to pass one another if needed. In most cases, you should plan

for a clear tread width of around 800 mm as a minimum in line with building regulations. For staircases serving a single habitable room (such as a loft conversion) it may be possible to reduce this to 600 mm.

To ensure the staircase is safe and easy to walk up, it is recommended that the maximum pitch for straight stairs is 42 degrees. For spiral and helical staircases, the total measurement of two rises (step-up between treads) plus 1 going (tread depth) should generally be between 550 and 700 mm and should be identical all the way up.

Spindles, treads, and handrails can all be selected in a range of profiles and designs, providing the balustrade height is at least 900 mm and no gaps are large enough to allow a 100 mm sphere to pass through.

With a bespoke staircase, there is also a huge range of design options to add a personal touch to your chosen style. For materials, you can choose conventional timbers, a combination of timber and metalwork with integrated metal supports and balustrades, or go for a full metalwork staircase manufactured from a material like cast aluminium. This can add a more traditional or contemporary feel, depending on the design you choose.



The right staircase can really transform and elevate a home. By working with a bespoke manufacturer or joiner, you can ensure the finished staircase not only works within your home's layout and usage but stands as a piece of personal design in its own right.

Richard Harding is the director of British Spirals & Castings

Wykamol launches ultra-thin ISO-THERM retrofit insulation



Wykamol has launched an innovative, patented textile-based thermal wall insulation which is ideal for creating dry and warm walls, primarily in retrofit situations, with the potential to save energy and protect properties from penetrating damp. ISO-THERM is an ultra-thin – approximately 4 mm thick – specially woven polyester-based material which, due to its flexibility and ease of use, can quickly be cut around light switches, sockets, radiator brackets, architraves, skirting boards and even complex shaped decorative mouldings. This therefore avoids the disruption and cost of employing additional trades such as electricians, plumbers or carpenters. The ISO-THERM membrane is secured to the brick or block substrate with Wykamol's unique ISO-THERM Adhesive, applied at a thickness of approximately 5 mm using a notched trowel. The ISO-THERM is then simply rolled into the glue before receiving a plaster skim coat, affording an overall finish of approximately 10 mm. The ISO-THERM material is both waterproof and vapour permeable and therefore does not support the growth of surface mould, instead allowing the wall to breathe.

01282 473 100 www.wykamol.com

FIREFLY® Zeus Horizontal Barriers protect East Midlands office's stair cores



High performance but lightweight fire barriers from the range of FIREFLY® have been specified by one of the manufacturer's Preferred Installers, to upgrade the fire protection within the stair cores to a large office property in the East Midlands continuing a burgeoning business relationship between the two specialists. The work on the two-storey commercial property, which dates from the 1990s, has been carried out by Coventry based KRASI Fire Protection using the FIREFLY® Zeus Horizontal 60:30 barrier, with FIREFLY's Technical Manager for the region attending site to offer design guidance, as well as during the contract period. The improvements were confined to the first-floor ceiling voids above each of the building's four staircases, but will help ensure escape routes are maintained in the event of any future emergency. FIREFLY® Zeus Horizontal is a lightweight flexible fire barrier designed to provide fire compartmentation of larger concealed spaces and voids within buildings, offering 60 minutes integrity and 30 minutes insulation. It has been specifically developed and tested for horizontal installation, including fitting around service penetrations.

01706 758817 www.tbafirefly.com

Bauder waterproofing systems are now CCPI verified



As a market leader in bringing high-quality products and systems to the roofing and construction industry, Bauder is leading the way again, by adopting the new Code for Construction Product Information (CCPI) across its roofing portfolio to have information verified for accuracy and clarity to ensure specifiers can rely on the data when selecting a Bauder solution.

The CCPI was initiated by the Construction Product Association (CPA) as a direct response to Dame Judith Hackitt's review of Building Regulations and Fire safety setup in the wake of the Grenfell Tower tragedy. It was created to promote an urgent and positive change in the way the construction product manufacturing industry manages and provides information on its products.

By achieving conformance, specifiers and contractors that use Bauder systems with a CCPI mark can recognise that any claims made about them have been independently assessed and verified across 11 clauses, bringing a greater level of confidence across the supply chain. This provides greater clarity on product information so that the right systems are more easily selected in the right application. All records are also maintained for product tracing and system assurance.

The objective of the code is that any claim made about a construction product or system must be substantiated by appropriate, clear, and unambiguous evidence. It will help restore trust and help the construction

specification process to be safer and more robust. Together with the Building Safety Bill, it can also help make buildings safer.

Product manufacturers apply to Construction Product Information Limited (CPI), (who are the custodians of the code), for verification of their products or systems, and successful applicants must demonstrate their conformance to the relevant clauses of the code for these products/systems.

The code comprises 11 clauses covering a wide range of matters from responsibility for product information to accuracy and clarity of performance claims, general information, and competency of those involved in product information.

It helps to create a level playing field for manufacturers of all sizes and type, ensuring that the information provided to specifiers, contractors, installers, and other users of information pass five crucial acid tests. All clauses must be adhered to in order to successfully obtain a CCPI verification for product sets, and for product and system information these must be:

- Clear
- Accurate
- Up-to-date
- Accessible
- Unambiguous

As a leading supplier of flat roofing systems, integrity is at the heart of everything Bauder does. The company strives to be the best in its industry, and transparency is a vital part of its business model.

CCPI Verification for Bauder systems means that you can have greater confidence in the knowledge that you will have unambiguous information at your disposal when deciding which of our systems is best for your new build or refurbishment project.

Bauder is well on the way to getting each of its systems verified and has already achieved CCPI verification for various flat roof waterproofing systems including:

- Bauder Total Roof System PLUS
- Bauder Total Roof System
- Bauderflex
- Airtech
- Thermofol PVC
- Thermoplan FPO
- LiquiTEC Cold Liquid Applied Roof and Terrace System
- LiquiTEC Cold Applied Balcony and Walkway System
- LiquiTOP Cold Applied Liquid Roof System
- Bauder Bakor Hot Melt

For more information regarding Bauder's CCPI-verified systems please contact your Area Technical Manager.

01473 257671 bauder.co.uk/contact



Defending schools from vandalism and damage

Following a merger of four local primary schools, the community of Port Glasgow, Scotland received a brand new, environmentally responsible education facility. However, the state-of-the-art primary school faced a number of challenges. Other schools in the district had suffered severe damage from wilful fire-raising.

As a heavily funded project, the facilities were at risk of malicious damage along with theft of expensive equipment. A high security alternative to grilles or standard security shutters was therefore required. As the school



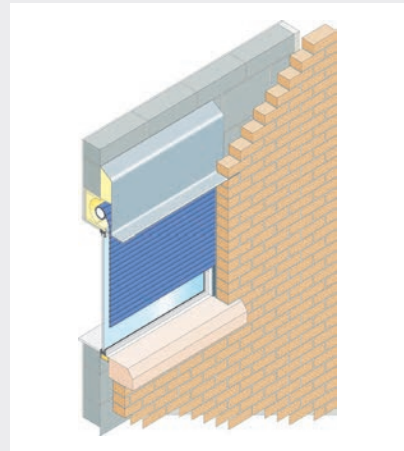
overlooks the river Clyde, the landscape lent itself to the building's concept, with sloping roof structures and valley-like subdivides within the playground. The £9.6m project was designed to inspire the children and staff on site every day.

The solution implemented ultimately had to maintain the aesthetic properties without compromising on security or creating a fortress!

As a specialist manufacturer of integrated security shutters, Charter Global, were approached during the early stages of the project conception, allowing the design to integrate with the architecture of the building to give a much more aesthetically pleasing result.

Working closely with Charter Global's design team, the solution took the form of Intergr8 structural built in Shutters securing all ground level apertures against unwanted intruders.

The Intergr8 structural lintels removed the need for any unsightly head-boxes, and recessed guide rails further reduced the shutters' visual impact. Finished in both



vibrant red and a contrasting blue finish, the shutters are also resistant against the coastal weather and play an important part in the building's bold and striking design.

enquiries@charter-global.com
www.charter-global.com/integr8

Sunsquare Skylights: Revolutionising roof design for architects

Esteemed for its pioneering contributions to the rooflight sector, Sunsquare consistently establishes benchmarks with its Skyview and Horizon Walk-On Rooflights, receiving widespread recognition from the architect community for unmatched quality and innovation.

The Skyview Rooflight, Sunsquare's premier offering, represents the epitome of design refinement and thermal efficiency. Distinguished as the first rooflight to receive the BSI Kitemark in its category, it meets and surpasses rigorous standards for safety, durability, and energy efficiency.

Boasting system U-Values as impressive as 1.05 W/m²K and an optional upstand reaching 0.92 W/m²k, the Skyview Rooflight exemplifies Sunsquare's commitment to architectural excellence. Furthermore, its 'CERTIFIRE' certification for fire ratings of EI30 or EI60 underscores Sunsquare's dedication to innovation and safety. The Horizon Walk-On Rooflights, in



contrast, epitomise the seamless integration of aesthetics and functionality for exterior applications. Specifically designed for terraces and rooftop spaces necessitating pedestrian access, these BSI Kitemarked roof lights permit abundant natural light to penetrate the interiors beneath, ensuring utmost safety and performance. Crafted to endure harsh conditions, the Horizon

series offers unparalleled safety and thermal efficiency, rendering it an ideal selection for environments where durability and design distinction are paramount.

With the recent integration into the Surespan family, Sunsquare will further revolutionise the skylight industry in 2024, with its Skyview and Horizon roof lights serving as symbols of innovation, safety, and environmental stewardship in the industry. By consistently surpassing the anticipations of architects, builders, and homeowners, Sunsquare solidifies its leadership in providing cutting-edge rooflight solutions, illuminating the path for future architectural design and building efficiency enhancements.

A highlight of this collaboration is the in-house bespoke production of insulated upstands, a clear demonstration of the synergistic relationship between Sunsquare and Surespan.

01922 714 087 www.sunsquare.co.uk

Hardie® Architectural Panel chosen for Go Modular project

Beam Contracting, the high-end construction firm, has chosen to utilise the Hardie® Architectural Panel, a product from James Hardie, the world leader in the manufacture of high-performance fibre cement and fibre gypsum building solutions, as part of its construction of ten modular flats in Poole in conjunction with Go Modular Technologies (UK) Ltd, the modular building manufacturer.

The decision to choose the Hardie® Architectural Panel was based on the fact that it is easy to install and delivers a cost effective, low maintenance solution with the assurance of an A2 fire rated performance. Vivalda, the independent distributor of cladding panels, supplied the materials for the project, fabricating the panels in phases to coincide with the construction schedule. Smooth sand, one of the available textures, was chosen to match the planning specification in three of the core panel colours (Arctic White, Anthracite Grey and Cobblestone), giving the project a modern and contemporary look, and reflecting the coastal location.

Steve Hawes, Project Director at Beam Contracting commented: "This was the first time that we've used the Hardie® Architectural Panel and we were really pleased with how easy it was to install - so much so that we have subsequently added the panel as a standard specification option for Beam Contracting."

Lee Bucknall, UK Sales Manager at James Hardie, added: "Modular buildings are becoming



an increasingly popular solution providing construction firms and clients with lower project costs, sustainability benefits and significantly reduced build times. Hardie® Architectural Panel is perfectly suited to supporting modular

building methods providing a sustainable solution that is durable and easy to install."

0121 311 3480
www.jameshardie.co.uk/en

Senior specified for UK's first carbon-neutral built community arena

The new Canon Medical Arena in Sheffield has been designed by architects Bond Bryan and features a duo of sustainable aluminium fenestration solutions from Senior Architectural Systems.

Senior's SF52 curtain wall system was the ideal choice for the arena's modern facade, offering attractive slim sightlines and design flexibility without compromising on exceptional thermal performance.



The use of this system, which offers full cradle to cradle recyclability, complements the Canon Medical Arena's sustainable credentials as the UK's first carbon-neutral built community arena.

Senior's SD aluminium commercial doors were selected to complement the use of the SF52 curtain wall system and provide a robust solution for such a high traffic application. Both Senior products were expertly fabricated and installed by specialist contractor MIS Architectural Aluminium Rotherham on behalf of main contractor Beboys.

The Canon Medical Arena has been designed to address inequality in Sheffield, providing significant employment opportunities in the city as well as offering a 'one-stop-shop' preventative healthcare service. The centre will be home to cutting-edge diagnostic imaging systems which will help to relieve post-Covid waiting lists and allow residents to receive early intervention



where needed. It is also the new permanent home of the Sheffield Sharks and Sheffield Hatters, as well as the RESPECT programme, which aims to provide young people with better access to sports and health education.

For more, search for Senior Architectural Systems on Twitter, LinkedIn and Facebook.

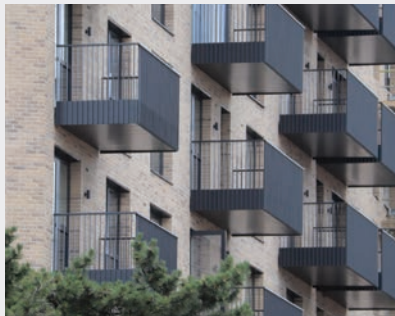
01709 772600
www.seniorarchitectural.co.uk

West London's revitalisation sparks surge in residential development

Sapphire Balconies attention to detail ensured offsite manufactured balconies were meticulously delivered in phases to align with the construction timeline. Nestled on Merrick Road, The West Works site occupies the north-west corner of the former Malgavita Works site, once a pioneering margarine factory and later the home of Walls sausages. Under the stewardship of Redrow, the site has been transformed into a modern residential hub, with two additional projects already completed on Merrick Road.

Comprising 489 apartments of various sizes and floor plans, along with a small commercial space, The West Works adopts a four-core concept, featuring a central courtyard and three core sections ranging from seven to 16 storeys in height. The standout feature of the development is the 22-storey Merrick Tower, distinguished by its striking brick cladding.

To cater to diverse preferences, The West Works offers a range of apartment sizes,



layouts, and balcony types. Notably, 92 apartments feature Sapphire's Glide-on™ Cassette® balconies, adding visual interest and flexibility to the design. Manufactured offsite in Sapphire's specialist facility, these balconies were meticulously delivered in phases to align with the construction timeline, showcasing efficiency and precision in execution.

Upon arrival at Merrick Road, the balconies were seamlessly integrated into the structure using cast-in anchors with thermal breaks, ensuring both rigidity and energy efficiency. While maintaining a consistent specification across all units, the project accommodated variations in balcony placement and decking materials, underscoring Redrow's commitment to customization and client satisfaction.

The West Works stands as a testament to the transformative power of residential development in West London, offering residents a blend of modern amenities, connectivity, and architectural innovation. As the region continues to evolve, projects like The West Works serve as beacons of progress, reshaping the urban landscape and redefining the concept of contemporary living.

0344 88 00 553
[balconies.global/case-studies/malgavita-merrick-road](https://www.balconies.global/case-studies/malgavita-merrick-road)

Product highlight: ME055 FR Breather Membrane (WHITE)

Illbruck, a brand of Tremco CPG UK Ltd, is proud to announce the launch of the newest addition to their building facade protection range; ME055 FR Breather Membrane (WHITE).

The latest addition to the range is a non-combustible and highly vapour permeable breather membrane that is A1 in accordance with EN 13501-1 and water resistance to Class W2 in accordance with EN 13859-2.

Designed to be used as a full facade breather membrane on new build and refurbishment projects; this solution offered to the marketplace is highly breathable, water resistant, and easy to install. It is important to note that Illbruck's FR Breather Membrane (WHITE) meets the fire performance for membranes installed on "relevant and higher risk" building types as defined in Approved Document B of the Building Regulations for England and Wales.



Features and Benefits of ME055 FR Breather Membrane (WHITE):

- Class A1 Reaction to Fire Classification
- UV-resistant up to 3 months before cladding
- High-temperature resistance
- W2 water resistance
- Classified as a breather membrane with an Sd value of 0.03 m.

This new product offers specifiers, architects, and main contractors confidence in product performance and suitability of product selection in a variety of applications. Suitable for use within high-rise buildings, timber

frames, lightweight steel frame constructions, and off-site construction. One can rest assured that this product boosting an A1 fire classification will perform if ever called upon.

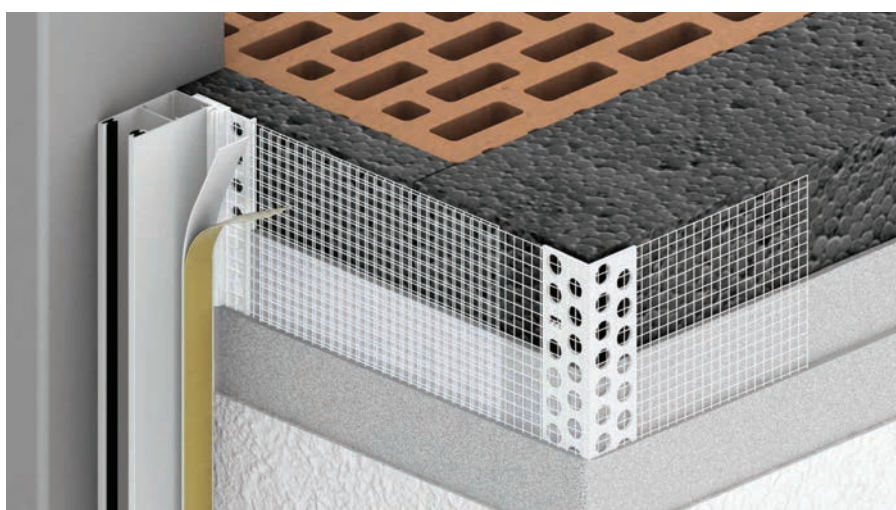
How can Illbruck support?

Illbruck has a range of breather membranes, suitable for all applications. Our in-house specification team will be able to provide support for architects, specifiers, and designers in ensuring that the correct breather membrane is chosen for the project at hand.

www.illbruck.com/en-gb/products-systems/product-overviews/fire-rated-membranes

Fix project performance and aesthetics

Mark Newell of EJOT highlights how some of the latest developments in fixings and profiles are enhancing system performance and aesthetics



ETICS profiles perform a key role in the durability and performance of EWI systems as the corner bead angle and frame seal bead show here



Anchor marks visible on the rendered facade of a property treated with an external wall insulation system

External wall insulation (EWI) systems, which we also refer to as ETICS, are playing a crucial role in upgrading the thermal performance of UK homes and other non-domestic buildings. This is important not only in terms of reducing the built environment's overall carbon emissions, but also for enabling homeowners and building managers to reduce heating costs.

Technical innovation is undoubtedly driving ever higher performance possibilities from EWI systems, most notably in terms of thermal insulation levels, but also longevity and aesthetics. This means systems providers are continuously raising the bar, giving architects and specifiers ever more viable refurbishment routes for poorly performing buildings, and avoiding the need for demolition and replacement with new build.

Key to this ever improving performance are the latest generation of fixings and profiles used to attach systems to the building's existing facade. As with any type of building envelope system, it is only ever as good as the components that hold it all

together, so it is important to understand how seemingly minor design features in EWI attachment products help to optimise a system's performance.

Secure anchoring and maximising visual appeal

EWI systems are typically designed with anchors which securely attach insulation to the substrate. Due to the different types of insulation available, including phenolic boards, EPS (expanded polystyrene), XPS (extruded polystyrene) and mineral wool, along with huge variations in the building's substrate, a range of anchoring approaches has been developed. Their principal design objectives include enabling easy installation using the fewest number of fixings and minimising the potential for thermal bridging.

The plastic washer and metal fastener combination that many systems utilise is, therefore, critically important to the long term success of an EWI system. So, it is important to look for ETA (European Technical Assessment) approved products, or those with other credible third-party certifications, for additional assurance when specifying.

Today's advanced EWI systems provide higher levels of thermal insulation by using thicker insulation, held in place by countersunk anchors. Without the right anchoring approach for a thicker layer of insulation, however, there is the potential for weak points in the thermal performance and 'anchor marks' to appear on the rendered finish.

This is due to insufficient treatment of the recess in the insulation, resulting from the countersinking process, which often means it is deep filled with render. As a result, the consistency of the insulation is broken, creating a difference in how heat and moisture transfer through the EWI system at those points.

One of the ways to overcome these issues is to use an anchoring solution, when used in combination with a special tool, this allows the anchor to be installed into the insulation to the correct depth in a controlled manner.

The installation tool cuts the area around the anchor washer and the insulation material is automatically compressed under the washer when the anchor is screwed in. An insulating cap formed using the same type of insulation can then be inserted flush into the recess between the anchor washer and the facade surface, allowing for a homogenous installation surface to be achieved.

Understanding profile basics

Equally important to the installation simplicity and long term performance of an EWI system are the profiles. Innovative detailing in their design can make a significant difference to the quality of the rendered finish, particularly at corners and around reveals such as windows and doors.

Corner bead angles, for example, provide reinforcement to allow for the exact formation of 90° corners. They may feature a one-sided mesh overhang to achieve

an optimal overlap, as well as helping to prevent cracking. Other types of profiles serve specific purposes, such as drip edge profiles, which provide targeted water flow, and frame seal beads designed to create a permanent seal around windows and doors to prevent moisture ingress.

Accommodating external attachments

Innovative fixings also enable the integration of secure attachment points within the ETICS facade for elements that will need to be installed once fully rendered. Planned attachments can be integrated within the EWI system as it is built-up, providing these are considered at an early design stage, which will be needed for safety critical elements, such as the railings for balconies.

Other elements that may not have an exact position set at the outset, such as brackets for downpipes, mountings for air-conditioning units and exterior lighting, can be attached to a completed facade with ease.

Mark Newell is external thermal insulation composite systems specialist at EJOT UK



An anchoring solution which enables the installer to achieve consistency in the insulation when recessing anchors and avoid anchor marks

The art of perfect transparency from Hörmann UK



Hörmann UK have announced an exciting addition to their market leading range of sectional garage doors, the ART 42 Vitraplan which offers an eye-catching blend of transparency and reflection. Featuring surface-mounted, flush-fitting grey glazing panels the door provides the perfect design choice for exclusive, modern residential architecture. The ART 42 Vitraplan has been developed for the domestic market from a similar Hörmann industrial door which is widely used in high-end car showrooms. It is an elegant aluminium frame sectional door with concealed frame profiles in RAL 9005 Jet black. The large surface-mounted, flush-fitting grey glazing panels provide maximum light creating a modern, showroom style garage door combined with all of the market leading features and benefits of a traditional Hörmann sectional door. The glazing panels feature the unique Hörmann DURATEC scratch-resistant finish. DURATEC is an innovative surface coating, which protects the glazing panes from scratches and damage caused by cleaning and environmental conditions over the long-term, helping to guarantee a permanently flawless appearance.

01530 516868 www.hoermann.de/en/innovations/detail/show/aluminium-frame-door-art-42-vitraplan

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Sustainable Retrofit with Nordic Copper

Adaptive reuse of existing buildings is an essential strategy to reduce embodied carbon, while regenerating our urban environments. An exemplar of this approach – 72 Broadwick Street – is crowned by a profiled roofscape clad in Nordic Brown Light copper from Aurubis.

Set within the Soho Conservation Area, 72 Broadwick Street is a half-acre island site fronting London's iconic Carnaby Street. Originally built in the 1970s as a 'brutalist' concrete, seven-storey headquarters building, its recent extensive mixed-use redevelopment now provides a range of uses including offices, restaurants, a gym, retail and residential units. Designed by architects Buckley Gray Yeoman (BGY) for developer Shaftesbury Carnaby, the regeneration project demonstrates how a diverse range of uses can be accommodated within one urban block in the heart of London.

72 Broadwick Street was recognised as the 'Best Mixed-Use Scheme' by the 2023 Building London Planning Awards. As well as requiring major structural alterations and remodelling, the project also presented various challenges for architects BGY, planning consultant Rolfe Judd and main contractor Blenheim House Construction. They included working around the West End's largest electrical substation, keeping existing ground floor units operational and minimising impact upon a major retail destination. The building's exterior has been transformed with new fenestration throughout, new feature brickwork and existing brickwork treated to give the complete development a contemporary feel.



Reduced Structural Demands

The original fifth and sixth storeys were demolished and replaced with extensive, lightweight rooftop additions wrapped in an external skin of Nordic Brown Light copper, creating residential apartments around a central courtyard. Eleven of the fifteen apartments have distinctive pitched roofs that rise and fall to create a dynamic roof profile. Ben Oram, BGY's Head of Technical, said: "In one of inner London's densest districts, the profiled roofscape of this re-purposed urban block helps to embed it among the varied age, materiality and massing of its neighbours." Conceived as the 'crown' of the building, the copper roof eaves sit above terraces enjoying panoramic views across Soho, with their deep overhang contributing to solar shading.

Copper is also used extensively for vertical cladding in the form of cassette panels, some perforated to provide ventilation. Rachael Owens, BGY's Head of Sustainability, explained: "Copper cladding was chosen due to its lightweight nature, as the structure at the top of the building needed to be as light as possible to prevent the need to strengthen the existing structure below. When compared with alternative metal cladding products, the copper could be specified with a reduced thickness, due to its strength, which reduced overall material use and embodied carbon emissions".

The Nordic Brown Light roofing and cladding, supplied by Aurubis stockist Metra Non Ferrous Metals and carefully installed and crafted by Roles Broderick, defines the regeneration of this landmark building. Nordic Brown copper is pre-oxidised in the Aurubis factory to provide straightaway the same oxidised surface that develops naturally over time externally. The lighter or darker shades of brown – determined by the thickness of the oxide layer – will continue to change in the environment and Nordic Brown Light gradually develops a stable dark chocolate brown colour.

NordicCopper@aurubis.com
www.nordiccopper.com



Photos © Dirk Lindner

AeroBarrierUK headlines Future of Airtightness event at the Building Performance Hub

AeroBarrierUK, a trailblazer in air-tightness solutions, took centre stage at the Building Performance Hub event held on Wednesday, 10th January. This event, attended by devolved government representatives and UK government advisors, highlighted AeroBarrierUK's Connect Sealing System as a groundbreaking innovation, demonstrating a significant leap towards scaling low-energy, low-carbon homes through reducing draughts.

The Future of Airtightness event also showcased a number of industry innovations, with AeroBarrierUK headlining the days with a live seal of the Building Performance Hub's Training Suite. This demonstration culminated in an impressive draught reduction two-thirds to achieve outstanding low-energy airtightness



Envelope Leakage Report from the Building Performance Hub – 2/3 of all draughts removed in under 60 minutes. ©AeroBarrierUK

results of 1.23 ACH50, providing EnerPHit-standard airtightness results. Furthermore, AeroBarrierUK's award-winning system achieved this in under 1 hour of sealing time, with its targeted and scientific sealing system using less than 1.5 litres of material – reducing on-site waste, improving delivery speed and guaranteeing improved energy performance.

AeroBarrier Connect, the revolutionary sealing system at the core of AeroBarrierUK's success, guarantees a specific level of air tightness. Using patented technology, the system employs a modified blower door test, pressurizing buildings and applying a non-toxic mist coat to seamlessly seal any leaks. Real-time monitoring of air-tightness levels ensures predictability, repeatability, and reliability for both domestic and commercial projects.

The AeroBarrier System addresses gaps as minuscule as the width of a human hair up to 12mm, achieving air-tightness ratings ranging from the UK building standard of 5m³/hm² to outstanding Passivhaus levels of 0.11m³/hm³. Its efficiency, proven to be at least three times faster than traditional methods, mitigates concerns about human error and test failures during construction, enhancing overall quality assurance.

Utilizing a blower door test, the AeroBarrier team analyses real-time data readings to track the distribution of the sealant in the space.

The Building Performance Hub Training Suite – sealed during a live demonstration by AeroBarrierUK. ©BCTA Group



Once the desired air-tightness level is achieved, the sealing process concludes, followed by a final blower door test to verify the results. Post-sealing cleanup takes mere minutes, allowing other site work to resume shortly thereafter. Clients receive a Certificate of Completion detailing pre- and post-leakage results for the work undertaken.

AeroBarrier's sealant, a water-soluble organic compound, is proven safe with ultra-low volatile organic compounds (VOC) and GreenGuard Gold certification. Its inactive nature eliminates the need for chemical reactions to form a seal, ensuring no off-gassing or airborne release of harmful chemicals into building envelopes, maintaining the designed indoor air quality.

01432 513 499 www.aerobarrieruk.co.uk

Glidevale Protect covers all solar roofing needs with 15 year product warranty

Glidevale Protect has unveiled a new 15 year product warranty on its pitched roofing underlays and ventilation products when used as a complete system where integrated in-roof photovoltaic (PV) panels are installed, offering quality assurance across its range.

The warranty extends to Glidevale Protect's full range of vapour permeable and impermeable pitched roof underlays plus its high and low level ventilation products. Under the warranty, Glidevale Protect will replace any products that are verified to be defective on a like for like or nearest equivalent basis for up to a period of 15 years, offering added reassurance to the industry.

Matt Neary from Glidevale Protect commented: "Roof designs can be complex, for example with the increasing popularity of integrated in-roof solar PV panels. It's imperative that the correct underlay and ventilation strategy is implemented, to minimise the risk of harmful condensation forming and therefore the potential of rotting roof timbers. Our technical team is able to offer guidance on a full roof ventilation strategy to suit the specific parameters of each project, drawing on our range of high quality products, which are made here in the UK. Our new 15 year product warranty provides the assurance that our roofing



materials are manufactured to the highest quality and are designed to last the lifetime of the roof, provided they are correctly installed in accordance with our fixing instructions."

Glidevale Protect's complete range of roofing underlays covered under the 15 year warranty includes their latest product, Protect A1 Solar, a heavy duty type HR impermeable roofing underlay designed to reduce condensation forming on the

underside of integrated in-roof solar PV panels.

Terms and conditions apply. For more information about the 15 year product warranty and the company's range of roofing and ventilation products, visit Glidevale Protect. Follow Glidevale Protect on LinkedIn.

info@glidevaleprotect.com
www.glidevaleprotect.com



BUILDING INSIGHTS

A PODCAST FOR THE CONSTRUCTION INDUSTRY
LISTEN AT HBDONLINE.CO.UK





Cover image © Dirk Lindner
See page 29 for details