

# building construction design

[www.buildingconstructiondesign.co.uk](http://www.buildingconstructiondesign.co.uk)

WINTER 2024

Appointments & news	02
Building products	14
Interiors	19
Exteriors	24

Cover image: Renson UK  
See page 30 for details



The image features a central fire door set against a dark background. The door is framed by a thick, intense ring of orange and yellow flames that appear to be consuming the frame. The door itself is dark and has a silver handle. The overall composition is dramatic and emphasizes fire safety.

# vicaima

UNEXPECTED HARMONY

Fire Door Solutions

## Safety First

# Vicaima Group reaffirms ESG commitment and sets targets driven by the sustainable development goals

*The Group shares its strategy, practices and objectives within the scope of the ESG criteria, and its alignment with the 2030 United Nations (UN) Agenda.*

Driven by the motto “Together We Build the Future”, Vicaima Group has just presented the sustainability strategy that will guide the Group’s performance until 2026. With a transversal approach and integrated ESG criteria, the Group is reinforcing its responsibility and ambition to continually reduce the impact of its activity, as well as contributing to a more sustainable construction industry in favour of a better planet.

Focusing on transparency and the involvement of all stakeholders in this important mission, the Vicaima Group shares its strategy, implemented practices and goals within the scope of the ESG (Environment, Social and Corporate Governance) criteria, as well as its alignment with the SDGs (Sustainable Development Goals), aimed at developing sustainable, transparent and socially responsible business.

In the words of Arlindo da Costa Leite, Chairman of the Board of Directors of the Vicaima Group: “We’re making a long-term commitment which reflects our desire to integrate and ensure the alignment of the Vicaima Group’s strategy with the sustainable development agenda. We see this moment as an important and transformative milestone for our business, and it’s not merely meant to be a simple description of initiatives, goals, objectives or wishes.”

The reduction of greenhouse gas (GHG) emissions, the adoption of circular economy principles, along with the optimisation of materials and resources, minimising waste and residues, are now seen by the Vicaima Group as key innovation catalysts, based on a production model with a strategy to create value with responsibility.

## Significant reduction in emissions led to increased efficiency

In 2022, the Vicaima Group achieved a 15% reduction in the tCO<sub>2</sub>e/sales emissions index, reflecting an absolute decrease of 578 tCO<sub>2</sub>e,



despite the increase in production volume.

These figures are the result of the implementation of energy efficiency projects and other specific initiatives aimed at reducing GHG emissions, such as investment in more efficient production equipment, production of renewable energy for self-consumption or focus on electric mobility.

All these policies and activities are part of a holistic perspective for the Organisation, based, according to the Chairman of the Board of Directors, on a “growth strategy founded on a path of innovation and differentiation, seeking a balanced social, environmental and economic dimension”.

## Four foundation pillars of an ongoing strategy

The Vicaima Group has identified four fundamental pillars in its strategy for integrating ESG issues into its business: People and Community, Climate Action, Sustainable and Innovative Products and Responsible Business. These aspects represent the Group’s focus and represent the relevant material topics in the ESG sphere resulting from a consultation process with internal stakeholders and from the definition of the Materiality Matrix.

Based on its own projects and the association with partner organisations, the Vicaima Group has been reinforcing its commitment to solidarity, environmental, safety, health and well-being initiatives, as well as to valuing Human Capital. In

this last sphere, it is worth highlighting the implementation of several projects aimed at qualifying and diversifying employees’ skills, as well as synergies with the educational and academic world, with a view to promoting and enhancing youth employment.

These are priorities reflecting the Vicaima Group’s identity, given that, as Arlindo da Costa Leite points out: “our path is based on a strong corporate integrity, entrepreneurship, rigour, innovation and social commitment, translating into a combination of human capital and business development”.

## The art of transforming and adding value to wood

Currently, the Vicaima Group is amongst the largest private economic groups in Portugal, operating in over 36 markets worldwide and with a direct presence in Spain and the United Kingdom. Employing more than 800 people, it continuously strives to strengthen its commitment to technology, organisation, human resources and the environment.

The Vicaima Group’s 2022 Sustainability Report is available to view in full at: [www.vicaima.com/en-gb/sustainability#inicio](http://www.vicaima.com/en-gb/sustainability#inicio)

01793 532 333 [www.vicaima.com](http://www.vicaima.com)

**vicaima**  
MADEIRAS SGPS, S.A.

## SITE LINES

# Modular methods of construction

Is modular construction the missing jigsaw piece needed to solve the UK's housing crisis? HKR Architects' Ayna Azhigali says it is, and that aesthetics need not be an issue

**W**e are all acutely aware of the housing crisis that the UK is undergoing, with the number of new homes being built falling short of the Government's targets and a critical need to ensure that people have access to suitable housing that is safe, warm, and healthy.

HKR Architects has over 20 years' experience designing and delivering a wide range of modular projects, both in the UK and internationally, and therefore have first-hand experience of the benefits the method brings in delivering new homes at a faster rate with minimised disruption to the local community.

### Modular pocket schemes

With the challenge of tackling three tight urban sites in London on the edge of existing residential estates and alongside a busy railway line, HKR Architects used their knowledge and practical experience to design and deliver quality homes for local first-time buyers.

Creating identical modules across the three Pocket Living projects but designed and assembled to create three distinctly different schemes, these new homes completed the original estate and brought an active community feel to a previously neglected area.

The modules were constructed concurrently, with coordinated factory slots, delivery and sequencing using materials to reflect the local vernacular. By doing this the work on site was completed within four weeks, halving the number trucks on site, considerable reduction in waste and a six-month reduction in the programme.

Due to the close proximity of residential buildings, using

modular construction was particularly beneficial as the construction site had considerably less dust and noise, and in addition the whole construction programme was a lot shorter, resulting in less disruption to the neighbouring houses.

One of the interesting aspects of these three projects was that the client and planning authority didn't want the developments to look like modular construction, but instead look more in line with traditional brick houses.

To make sure that the joints were not visible on the facades, cladding was applied after the modules were installed. This resulted in the building having a more traditional construction look, with each project having distinctive characteristics, while internally the modules are identical, allowing for speed of construction.

### Leveraging airspace through modular

Appointed with Adstone Construction and Apex Airspace, HKR Architects completed the design and delivery of an innovative modular rooftop extension and infill development for Lambeth and Southwark Housing Association.

This enhanced scheme, above two existing 1950s residential blocks, created 30 new additional affordable homes by leveraging the airspace while existing residents remained in their homes.

As the existing roof was coming to the end of its life, a bespoke exoskeletal structure could be created. Added to the rooftop to carry the weight of the new modular homes – as part of the rooftop extension – the structure also helped to improve the insulation and weathertightness of the existing homes.



Juxon Street, modular housing scheme in Lambeth



## The benefits on show

There are a plethora of benefits that can come from modular construction, and the positive impact it has on residents, the environment, and businesses.

With most of the construction itself undertaken in a factory environment the time on site is significantly reduced, easing traffic, dust, and noise disruptions to both residents and the local area. Storage of materials is not an issue, and work can continue without disruption of weather conditions and being able to get homes finished internally in a factory setting ensures a greater consistency and quality.

With recycling being undertaken throughout the build process there is a significant minimisation of site waste, and the way technology is embraced reduces human error, so less snagging issues when installed.

Technology itself cultivates further positives; the speed of production equates to much needed homes being available sooner. Modular is an innovative solution for infill or extremely tight residential sites, as well as being extremely effective when looking at the regeneration of large urban housing estates.

One of the major challenges a lot of housing associations and private developers face is decanting residents of dilapidated housing who don't want to move away from their home area. Modular provides a comprehensive solution that allows homes to be built nearby, quickly, without disruption to residents, and can also make challenging sites more viable.



Antony and Roderick, new affordable rent scheme in Bermondsey, London SE1

Modular pocket-style accommodation has the ability to be constructed quickly in areas such as street car parking spaces on run down housing estates, and existing residents could be decanted into this new accommodation so that they don't have to move out of the area. Once they have moved however, the wider works could begin on the rest of the estate.

By understanding clients' objectives, we can work with them, the sites and the modular product to provide opportunities to bring forward their projects and redevelopment.

## Modular is not one thing

There are many facets to modular, another being that it also lends itself well to remote sites across the globe where services are not



Mountearl Gardens, south London

established and there is no or limited accommodation for staff to live. This can be one of the biggest challenges that developers initially face in projects.

## Future benefits

Using MMC reduces the amount of people onsite by 80% – with most of the work being carried out in the factory, and a number of factories can synchronise to deliver the modular at scale at the same time.

Modular construction can also help address the skills shortage in the industry. As production is streamlined within the factory, the risk of not being able to find the correct tradesperson is reduced. With AI now able to take over the time-consuming repetitive work that traditionally has been carried out by trained staff, we will be able to free up more skilled people and speed up the production of the homes.

With carbon and sustainability targets high on the agenda, modular ticks these boxes with the minimised waste on site, higher percentage of recycling, reduction in carbon footprint on site and increased insulation to reduce bills for residents.

What we need now to help us deliver the quality homes that are urgently needed is planners to embrace the many advantages of modular and as an industry we have to continue to change the perception it has in order to deliver the number of new homes that are needed.

It is also imperative to move to making planning decisions within the statutory time frame of 8-13 weeks, so that projects can be financially planned and be realised. Unfortunately, this is not the case at the moment, and unknown timeframes and uncertainty over planning approval is causing issues within the industry.

Looking at the need for modular going forward, we need to have more definite timeframes to allow for swift factory production, particularly during economic uncertainty, with rising inflation and interest rate; an unknown time frame can kill projects.

Speeding up the planning process will not only help achieve the houses we need, but also have a wider positive impact on the economy, providing work for subcontractors through to large construction companies and all the professions involved in between.

Modular isn't the only answer for addressing the acute housing shortage, but it is a key piece of it.

*Ayna Azhigali is associate director for HKR Architects*

## The Aico|HomeLINK Community Awards to return for 2024



Aico|HomeLINK are bringing their spectacular Community Awards back for 2024, returning on Thursday 18th April 2024, at The ICC, Birmingham.

Hosted by Carl Jones, presenter of Shropshire Business Live TV, the ceremony will welcome over 400 guests and finalists for an evening of celebration, and recognition of excellence within the social housing industry and local community. The Community Awards consists of 13 different categories, ranging from the Woman in Fire Safety Award, to Sustainability Project of the Year.

Aico is also delighted to launch the Apprentice of the Year Award for 2024. The award has been established to honour the brightest talents within

the electrical industry. The top six candidates for this award will be invited to the Aico|HomeLINK Community Awards Ceremony, where the winner will be announced.

All categories are now open to enter. The Community Awards by Aico|HomeLINK are open for nominations to the public and organisations across the UK. Entries will be accepted until the 16th of February 2024.

Neal Hooper, Managing Director of Aico, comments: "We are thrilled to be bringing back the Community Awards, these awards are a celebration of the inspirational people and organisations within social housing and our local communities. Corporate Social Responsibility

(CSR) is a key focus for Aico|HomeLINK. We believe it's about making a real difference in the lives of those around us, that's why it's so important to recognise the individuals and organisations who are going above and beyond to make their communities a better place. We look forward to celebrating the achievements of the nominees at the Awards in April."

To find out more, and how to enter, please visit: [www.aico.co.uk/news-and-events/aicohomelink-community-awards-2024/](http://www.aico.co.uk/news-and-events/aicohomelink-community-awards-2024/)

01691 664100  
enquiries@aico.co.uk  
[www.aico.co.uk](http://www.aico.co.uk)

## ARDEX returns to SPATEX 2024

ARDEX UK are once again exhibiting at SPATEX – the UK's largest pool, spa and wellness show – which is taking place from 6th to 8th February at the Coventry Building Society Arena.

At the heart of the pool and leisure industry, SPATEX is backed by a number of prestigious associations including ISPE (Institute of Swimming Pool Engineers), SPATA (Swimming Pool and Allied Trades Association) and BISHTA (British and Irish Spa and Hot Tub Association).

ARDEX will be returning to Stand D1 to showcase their world-class tiling solutions for pool and wet leisure installations – providing an extensive range of products, designed to work as systems – not only for fast-track installation times, but that also produce long-lasting, durable finishes.

Join the ARDEX team of technicians and specification experts to find out why ARDEX are the experts in swimming pool and wet leisure installations – with systems specified on a many prestigious projects including the London Aquatics Centre for the 2012 Olympic Games,



the Toll Cross International Swimming Centre for the 2014 Commonwealth Games and many, many more!

Visit the ARDEX stand and talk to professionals about your pool projects, find out about products and systems and how ARDEX taps into the resources of the ARDEX Group – a global leader of high-performance building products – to provide solutions to a range of situations.

Shaun Howarth, Head of Business Development at ARDEX will also be

delivering a RIBA-approved CPD 'Specify Tiling in Swimming Pools and Leisure Centres' at 1.15pm on Tuesday 6th February in the ISPE Workshop Arena. Shaun will be discussing the latest developments and standards in swimming pool design and tiling and considerations for contractors and architects when selecting and specifying the most appropriate tile fixing solutions for use in swimming pools and leisure centres.

[www.ardex.co.uk](http://www.ardex.co.uk) [www.spatex.co.uk](http://www.spatex.co.uk)



## Frameclad reveal new 'Premier Team' at Offsite Expo

With 15 years of experience in designing and manufacturing a comprehensive range of steel framing systems, Frameclad has grown in strength and stature. Founder Mark Munns has been on a mission to recruit the best of the best to the business. A mission that has been very successful - with three high-profile new signings in the last few weeks.

Following the arrival of Dan Payne, the new Regional Sales Manager for the South to the team last month, Frameclad's latest top talent was revealed at Offsite Expo. Steel frame specialists Paul Kent and Andrew Land had their first outing, joining Mark Munns and Joint Managing Directors Nik Teagle and Martin Jamieson and the rest of the Frameclad team at the event.

Now Frameclad's Regional Sales Manager for the Midlands, Paul has worked with some of the most prominent and well-established names in the light steel frame industry and will be well known to many. With an equally strong track record in the sector, Andrew Land joins Frameclad as Commercial and Estimating Manager.

Founder Mark Munns said: "Our business is going from strength to strength, and attracting the best talent is fundamental in this success. We pride ourselves on providing an agile and adept service that exceeds customer expectations, whether it's a small bespoke project or a complex build that requires our extensive experience and technical know-how."



As a leading BOPAS-accredited manufacturer of steel framing systems and components, Frameclad offers a complete package of services to customers. The business has invested significantly in state-of-the-art manufacturing technology and a 12 strong in-house design and engineering team that provides cost estimates

within 10 days and detailed designs within one week. The precision steel roll-forming machinery produces one of the largest ranges of steel sections available in the UK today from a single manufacturer.

01384 401 114 [www.frameclad.com](http://www.frameclad.com)

## Heat shouldn't cost the Earth

Is your heat network performing at its best? It's a crucial question for housing providers and property managers responsible for heat networks. The truth, however, is many UK heat networks operate at only 35% to 45% efficiency because they're not correctly operated and maintained. Consequently, they become less efficient over time. This can lead to a host of serious problems, including high energy costs, excessive carbon emissions, impaired comfort for residents, shorter repair and replacement cycles and even potential safety issues.

Heat networks are high-value assets and must be properly looked after to ensure they live up to the substantial benefits they promise. When you consider that a 10% efficiency increase in a 50-unit development can yield a total scheme saving of around £9,612 per annum, while a 20% improvement can generate

savings of £16,121 per annum, it's clear why heat network maintenance is so important.

### HEAT NETWORK EXPERTS

Finding a contractor with the right expertise can be hard though. Although heat networks are growing rapidly in popularity, the technology is still new. Heat network maintenance differs significantly from ordinary boiler maintenance because a heat network is building-wide, and the ways in which the central plant room connects with individual dwellings on the network are very specific.

Insite Energy has been working with heat networks since 2009. Insite's maintenance engineers are trained in-house to ensure their knowledge of the technology is at the forefront of the market, guaranteeing more reliable and efficient heat distribution at a reduced cost.



### TAILORED SOLUTIONS

Insite offers the UK's most bespoke heat network maintenance service, tailored to cover your specific needs. Contracts are tailored to cover whatever is needed, including plant room assets, heat interface units (HIUs), heat meters, metering solutions, heat pumps, water quality and network efficiency improvement (NEI) services. In addition, Insite's ESCo Manager solution provides everything needed to effectively manage your heat network, without tying you into long contracts.

Ready to unlock the full potential of your heat networks? Contact Jarrad Bedford, Insite energy's maintenance development manager, for more information or a quote.

07899 030759 [insite-energy.co.uk](http://insite-energy.co.uk)



## Passivent makes the grade at historic Northumberland Hall

Leading natural ventilation solutions manufacturer Passivent has helped breathe new life into the Grade II listed Matfen Hall in Northumberland following an extensive refurbishment programme designed by Doonan Architects.

The refurbishment of this gothic hall, which dates back to 1832, has greatly enhanced this stunning hotel and wedding venue set in the beautiful Northumbrian countryside. Passivent worked closely with specialist building environment and services engineers Skelly & Couch to develop a natural ventilation strategy for the hall's newly covered external courtyards. This led to the use of Passivent's high performance Aircool wall ventilators beneath the striking rooflight in order to maintain a fresh air supply to the enclosed area that has now been created.

In total, ten Aircool wall ventilators were installed by Passivent's client, J P Westhall, in the lower courtyard, with seven in the



upper courtyard. Passivent also supplied a two-zone iC8000 intelligent controller which monitors the internal and external temperature and carbon dioxide level to allow the facilities team to control the natural ventilation system.

Close collaboration was key to the successful delivery of the ventilation system, with Skelly & Couch working with Passivent very early in the design stage to access the relevant technical product information

and calculate the required free area. This information was then passed back to Passivent so the Aircool wall ventilator's aperture could be sized accordingly.

Passivent's Aircool range features both insulated wall and window ventilators that are fully controllable and ideally suited for use within the external facades of all types of buildings. The electrically actuated dampers provide controlled air intake, making them the perfect partner for natural and passive ventilation strategies. The Aircool range of ventilators is also suitable for night-time cooling strategies where daytime heat build-up is purged from the structure during the night. They also have excellent weatherability which allows the units to remain open even in inclement weather conditions. Passivent offers a number of options for its Aircool system including standard, thermal, acoustic and hybrid versions.

01732 850 770 [www.passivent.com](http://www.passivent.com)

## Zentia take home Made In Britain Award 2023

Congratulations are in order for Zentia, one of the UK's leaders in complete ceiling solutions, for being announced as the Grand Final Winner of the Made in Britain Awards 2023, a category within the North East Business Awards.

Following Zentia's win in the Northumberland and Tyneside heat of the North East Business Awards 2023, the company went head-to-head with the other sub-regional heat winners to be named overall North East winners for the Made in Britain category. Zentia was subsequently crowned winners at the Grand Final, which took place on 26th September 2023 at Hardwick Hall, and was hosted by Iwan Thomas MBE.

The Made in Britain category aims to recognise and champion businesses that are promoting manufacturing and production in the UK. Zentia places a focus on UK manufacturing, with its home base in Gateshead, Tyne and Wear, it is the UK's only manufacturer of complete ceiling solutions. Its UK focus also extends to technical and specification experts, as well as creating short supply chains and reliable



deliveries, making it a deserving winner for the Made in Britain category.

Dirk Jaspers, Managing Director at Zentia said: "This makes us very proud. Our company is only three and a half years old, but we have evolved to impressive new heights. We have invested in assets, in people, and in our premises in Gateshead, and we

have also invested in partnerships across the value chain in the UK. We excite our employees, please our customers and thrill our shareholders, so we are very honoured to receive this award."

[info@zentia.com](mailto:info@zentia.com)  
[www.zentia.com/en-gb](http://www.zentia.com/en-gb)



## Class 1 Magply boards withstand real life fire test on Surrey home



A potentially catastrophic blaze, which consumed the garage containing a parked vehicle adjoining a £1M house in rural Surrey, was stopped in its tracks thanks to the use of 12 mm A1 non combustible Magply being chosen as the render substrate board on the contract, the property was constructed using a Structurally Insulated Panel system construction (SIP) with A1 non-combustible Magply being used on the exterior of the building as the substrate panel for the proprietary render system. Magply is a multi-use A1 non-combustible board with an impressive library of testing for fire applications, in the offsite and timber frame sector the board is designed and specified to contain fire and support the emergency service with added crucial time! Although the emergency services were quick to attend the fire, which happened in August, it had taken sufficient hold that the large timber framed garage was totally destroyed with just some sections of the frame still standing. However, the gable end to the house which features a relatively thin, weatherproof finish of the silica-based K-Rend suffered only surface damage.

01621 776252 [www.magply.co.uk](http://www.magply.co.uk)

## Marmox enjoys success at London Build Expo



Insulation specialist, Marmox, is reporting the widespread interest and leads generated by its stand at London Build Expo, which took place at Olympia (15-16th November), where the company displayed a range of its products, including flying the flag for a new Fireproof and sound absorbing product. The UK's largest construction show involving some 350 exhibitors was attended this year by over 30,000 visitors, the numbers embracing builders, architects, engineers and developers, many of whom took time to stop by the Marmox stand and look over its well-respected and highly versatile Multiboard, along with the new Marmox Fireboard which will be available to purchase in January 2024. Fireboard can be specified for both internal and external wall insulation (IWI/EWI) applications and shares Marmox's honeycomb surface structure with its XPS forerunner, Multiboard, to create an A1 non-combustible certified render-backer which is weather resistant. Multiboard also on display meanwhile, remains a tried and trusted construction material across building sites around the country.

[sales@marmox.co.uk](mailto:sales@marmox.co.uk) [www.marmox.co.uk](http://www.marmox.co.uk)

## Nottingham E-sports competitors protected by FIREFLY® barriers



While concrete walls and Armco barriers are conventionally used to help protect drivers and spectators at motor racing circuits around the world, products from the range of FIREFLY® have been specified to provide the necessary fire protection periods within an East Midlands venue which has become a focus for E-sports enthusiasts in the UK. The work at The Metronome in Nottingham is being carried out by one of FIREFLY's approved installers on behalf of the venue's operator, Confetti Media and is making extensive use of the manufacturer's FIREFLY® Zeus Lite 90:30 barrier, along with the Collaroll product to create compartmentation throughout a basement area, and as parts of The Metronome are also used by Nottingham Trent University and its students as a recording and production studio, Krasi Fire Protection Ltd.'s contract is in fact being phased – with work due to complete to work around the academic year. Manufactured from woven and non-woven glass, the FIREFLY® range is designed to optimise resistance to flame and smoke as well as offer heat protection in a wide range of scenarios.

01706 758817 [www.tbafirefly.com](http://www.tbafirefly.com)

## New Marmox Fireboard offers ideal EWI and IWI substrate



Marmox has introduced the highly versatile Fireboard into its range for both internal and external wall insulation (IWI/EWI) applications. The Marmox Stone Wool based product shares the unique Marmox honeycomb surface structure with its XPS forerunner, Multiboard, to create an A1 non-combustible certified render-backer which is fully waterproof. It can further be used internally across walls or ceilings to take a plaster finish, while providing sound decoupling and acoustic absorption properties, as well as thermal insulation. The Marketing Manager for Marmox, Grant Terry, commented: "The introduction of Fireboard into our range significantly enhances our offer to the construction industry, meaning we have an A1 non-combustible backer board for internal or external use, which can safely be used across masonry as well as timber or steel framing systems. The Stone Wool the boards are made of is formed of molten rock, meaning it is impossible for the fibres to absorb moisture, so they will not degrade no matter what weather they are exposed to."

[sales@marmox.co.uk](mailto:sales@marmox.co.uk) [www.marmox.co.uk](http://www.marmox.co.uk)

## In-house expertise a driving force behind success



Nik Teagle, Joint Managing Director of Frameclad

*As a BOPAS Accredited light steel frame specialist, Frameclad has an advanced offsite manufacturing infrastructure underpinned by customised digital technology. But Joint Managing Director Nik Teagle considers it's the firm's in-house capabilities that's the driving force behind their success.*

**D**on't get me wrong, manufacturing and digital construction technology is massively important but with Frameclad, our strength lies in our people and the technical know-how within the team. From standard infill systems and off the shelf sections to vast medium rise bespoke light steel loadbearing developments – every project gets the same exceptional quality as standard, but it is our unrivalled customer service that sets us apart.

Transitioning from a merchant to a light steel manufacturer more than 15 years ago, we operate from two adjacent factories in Kingswinford with a combined area of 50,000 sqft of factory and office space.

Substantial investment in six cold roll-forming machines, supported by customised Tekla software, produces one of the largest ranges of steel sections available in the UK today from a single manufacturer. But it's our investment in in-house expertise that drives our business forward and keeps us ahead of the curve.

### Design and Consultancy Solutions

In spring 2022, Frameclad acquired Design and Consultancy Solutions (DACS) and has a 12-strong team of designers and engineers based in our office in Teesside. Providing cost estimates within 10 days and detailed designs within one week – our in-house team has the ability to make swift decisions and go that extra mile to meet rapid turn-around times.

DfMA – Design for Manufacture and Assembly is at the very centre of every offsite project, so we believe having total control over the manufacture and design elements – is essential. Our design and engineering team work in total synergy with our client's

architects to ensure a cost effective, safe and sustainable solution – that will not only be robust and reliable but is also practical to install. One project that demonstrates this, is the Chocolate Factory.

### Pick and Mix Steel Solutions

The development in London's Wood Green takes its name from the old Barratt & Co confectionery factory that once stood on the site. We are responsible for delivering the secondary structural framework, from design and engineering to fabrication and on site delivery. Block E2 is being transformed into 71 apartments and nine duplex houses – with the structural steel frame now due for completion.

The Chocolate Factory development combines infill light steel for the building's lower floors and panelised loadbearing frames are used to construct the top storey on the sixth floor, with only minimal requirement for structural reinforcement. When it came to detailing the loadbearing



frames of the top floor, the large panel sizes definitely presented us with a challenge from a logistics point of view. We overcame this by carefully considering the size and weight of the individual frames and how these could be loaded onto lorries and transported to site safely.

This is where our investment in Tekla Structures software came in. With our in-house skills supported by digital technology, the design and engineering team were able to identify the weights and centre of gravity for each component, carrying out checks and generating reports. This was a massive help in ensuring we didn't encounter any roadblocks further down the line, with potential problems being identified at an early stage.

Building Information Modelling (BIM) offers the ability to check, verify and compare information in a digital environment to ensure it is correct, before progressing to fabrication. For the light steel frames on the ground level to fifth floor – a clear benefit of the constructible modelling software was the ability to break down the individual steelwork using the user-defined attributes.

This meant that we were able to automatically sort the steel by phase, floor and zone – with the ability to easily filter and sort the information needed at a specific time to generate fabrication reports, and efficiently phase manufacture and delivery of the steel framing solutions.



Once fabricated, each piece of steel also had a unique code stamped on it detailing the specific zone, floor, profile size and

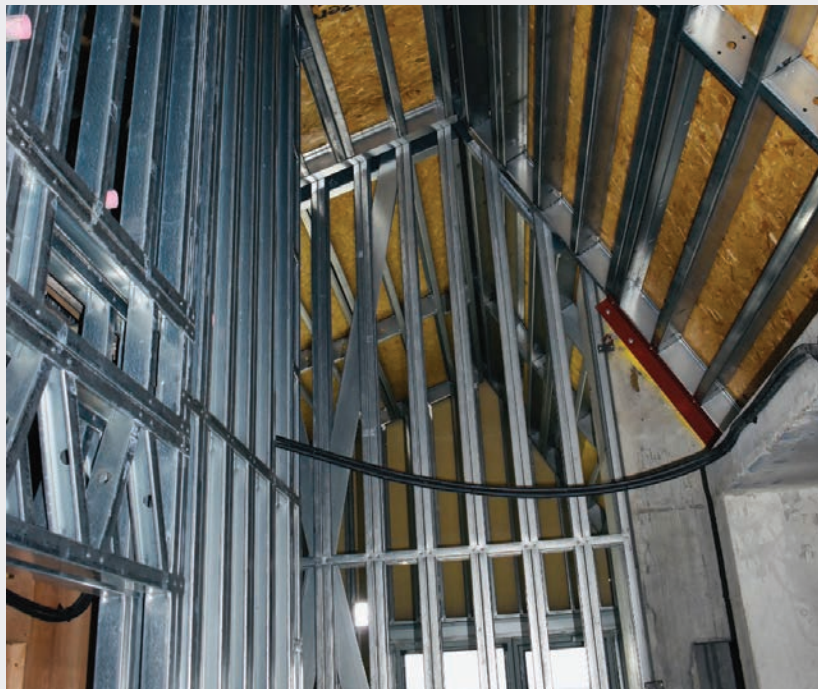
steel length. The site team could therefore easily identify the location for each piece of steel. All of this made for quicker and more organised fabrication, delivery and assembly processes – facilitating just-in time deliveries.

The framework for Block E2 is due for completion and is the result of another successful collaboration with an up-and-coming contractor Formation Design & Build Ltd. The Chocolate Factory development as a whole is expected to be completed by early 2024.

### Frameclad

Frameclad supply a complete range of loadbearing and non-loadbearing light steel framing systems and sections to the construction industry across the UK. Backed by BOPAS Accreditation to design at full scope, NHBC SCI, Infill and CE Certification, Frameclad has also invested in a growing suite of fire test and performance data to offer assurances to main contractors, architects, engineers and public sector clients. With a can-do attitude and in-depth technical know-how, they are keen, fiercely competitive and are considered trailblazers within the light steel sector. For more information please visit the website.

01384 401 114 [www.frameclad.com](http://www.frameclad.com)



# Lifecycle Analysis – A ‘Game Changer’ for Light Steel Solutions

**B**uilding safety is a key concern of the Light Steel Frame Association (LSFA), our members and end-clients. But safety does not have to come at the expense of sustainability – with light steel frame, construction professionals can achieve both. The LSFA is on a mission to highlight the safety and sustainability credentials of light steel – here we contrast and compare different metrics for assessing environmental impact.

Once environmental discussions focused on lifecycle analysis including recycling buildings at the end of life. More recently the focus has been on embodied carbon. But this is only part of the sustainability equation. Embodied carbon assessment is a subset of a broader discipline of lifecycle analysis which covers a range of different environmental impacts.

To understand the environmental performance of a product, the LSFA and our members firmly

believe its entire lifecycle needs to be taken into consideration – not just the manufacturing and construction phases. A lifecycle assessment of a steel product looks at resources, energy and emissions, from steel production to its end-of-life stage, including recycling or reuse.

As the construction industry continues to prioritise safe and sustainable building solutions – light steel framing has become an increasingly attractive option. This type of steel framing offers several environmental advantages that make it well suited for numerous applications in both residential and commercial buildings.

## ENVIRONMENTAL BENEFITS

National targets for carbon emission reductions and the drive for buildings that are ‘low carbon’ in operation present a huge challenge to the construction industry – a challenge which the steel

construction sector is playing a major part in overcoming.

In addition to being strong and economical, light steel frame systems also provide excellent thermal insulation properties due to their airtight nature – reducing in-use carbon emissions for the lifetime of the building. The use of light steel also allows for more efficient insulation systems compared to other materials used in offsite technology portfolios. Lightweight metal studs create air pockets that can be filled with insulation which helps reduce heat loss through walls or roofs and increases thermal efficiency within a structure’s envelope.

These structures require fewer resources to build and maintain while providing greater durability over time, they have longer lifespans resulting in lower long-term costs associated with maintenance and repairs. In addition, the frames have exceptional acoustic performance which makes







them suitable for use in areas where noise pollution needs to be reduced or eliminated altogether.

Overall, light steel provides many environmental benefits. Its low weight facilitates easy transport, reduced foundation requirements and prefabrication means it is quick to assemble on site. Its ability to support multiple types of finishes makes it suitable for a variety of cladding options allowing architects greater scope in their designs without compromising sustainability goals. In addition, its excellent thermal properties offer significant potential savings in terms of heating and cooling costs throughout the lifespan of light steel buildings.

#### ONCE PRODUCED – FOREVER IN USE

Manufactured from the most abundant component on earth, steel can be recycled or reused endlessly without detriment to its properties. This unique characteristic gives steel a high value at all stages of its lifecycle. The recovery infrastructure for steel recycling is highly developed and extremely efficient and has been in place for decades. Current recovery rates from demolition sites in the UK are 99% for structural steelwork and 96% for all steel

construction products – figures that far exceed those of any other building material.

Site waste is virtually eliminated by the use of prefabricated light steel systems compared to the industry average wastage of 10% in construction materials. Cold rolled steel components are manufactured to length, the swarf and offcuts produced which are minimal, can be recycled so there is no production waste.

Light steel frame construction is used extensively in the UK in a wide range of developments. The overriding benefits of safety, quality, speed, strength and value are widely acknowledged but the sustainability benefits can be overlooked. As innovators in light steel systems, leading manufacturers within our membership want to inspire construction professionals to develop buildings that meet the rigorous requirements of the recent Building Safety Act but are also highly sustainable.

A lifecycle approach will be a 'game changer' for the light steel sector and long-term analysis will show that it is intrinsically more environmentally sustainable than other construction materials. Its properties make it the ultimate sustainable

construction solution in terms of its longevity, superior in-use performance and its ability to be recycled and reused. But most importantly – enhancing the safety and sustainability credentials of new buildings.

#### LIGHT STEEL FRAME ASSOCIATION

The LSFA works to drive engagement, champion change, and spread the word about the cost, productivity, performance, sustainability and safety benefits of contemporary light steel systems. Trusted and widely specified by the UK construction industry – highly innovative and digitally savvy, the light steel sector has developed panelised and modular solutions that deliver high quality buildings on fast-track construction programmes. Bringing together a wealth of experience and technical know-how, the LSFA's website has a library of valuable information, including guides on sustainable steel and circular construction. To download please visit the website.

01743 290 001  
[www.lsf-association.co.uk](http://www.lsf-association.co.uk)

## Delta Membrane Systems launches new 800 Series of Packaged Pump Stations

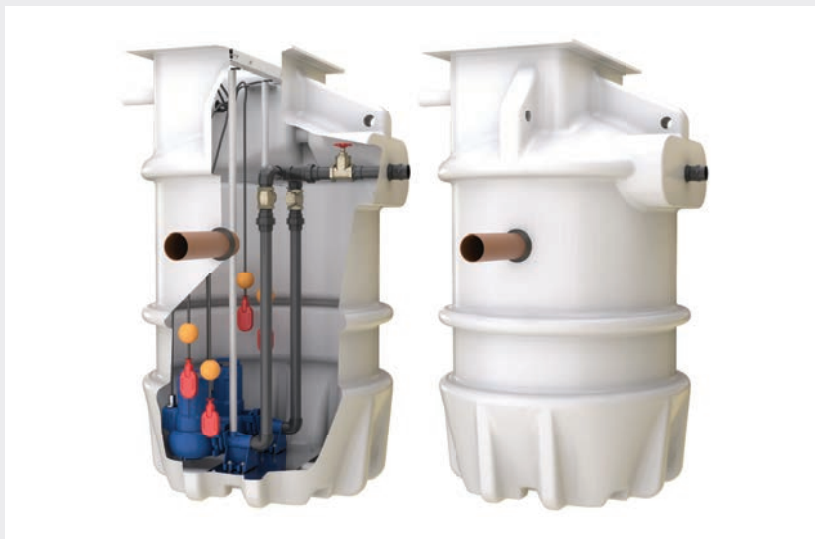
Delta Membrane Systems Limited, recently launched “Delta Pumps” a customised department in all things basement pumps and drainage. The newly formed department offers a wide range of standard and bespoke submersible pumps and pumping stations.

The Delta Bespoke 800 Series is suited for larger domestic and commercial projects due to its higher chamber capacity.

The Delta 800 Series of Package Pumping Station are available in depths from 1,250 mm to 2,000 mm and with varying pumping capabilities from the Delta Single V3 Foul to powerful Delta Dual V6 pump. Designed for pumping groundwater, surface water and foul water depending on specific project requirements.

As the name implies, a submersible pump is one that is designed to be immersed in a substance (from groundwater to foul water). While foul pumps are focused on pumping away foul and grey water. Subject to specification, groundwater sump pumps are used in conjunction with a Type C waterproofing solution to protect structures against groundwater. The purpose of a sump chamber is to collect and discharge (to a suitable evacuation point) any water ingress which has collected in the cavity drain membrane system and to discharge groundwater to a suitable external discharge point such as the mains drainage system.

Delta Membrane Systems Limited have substantially invested in their new range of packaged pump stations, with further investments planned for 2023.



Delta's Packaged Pump Stations are a complete unit. Comprising of chamber, pumps, pipework kit, valves, Control Panels, etc which are pre-assembled at their Pump Distribution Hub.

The new 800 series of package pump stations compliments, Delta's upgraded 695 and 895 chambers.

All of Delta's sump pump stations are built for durability, longevity and designed to withstand the most demanding of below ground environments. Whether it be a multi-level commercial, social facilities, or larger residential project, Delta Pumps have the solution to meet the specific needs of the contractor/architect/specifier.

Commenting on the announcement, Christopher Burbridge, co-founder of Delta Membrane Systems Limited said: "I'm incredibly proud of our continued success and delighted to see the company expanding operations with the opening of our Pump Distribution Hub. Delta continues to receive strong support from the waterproofing community, helping us to drive product development and future growth plans."

"The investment in 'Delta Pumps' signifies our business and team's strengths. With Kevin Dodds (managing director) overseeing our product development, I believe Delta will continue to add exciting new technology and

products to our already impressive portfolio."

"We recognise that every project has different requirements and therefore our Technical Teams work together as one, to provide tailored solutions that meet specific site and project needs. We manufacture all our package pump stations in-house from design, through to assembly and testing."

"We tailor the project scope to the client's requirements, providing basement drainage designs for developments of all sizes."

Delta Pumps are proud to be manufacturing and fabricating all their sump pump chambers from their new warehouse facilities in a new dedicated Pump Distribution Hub close to its Epping Headquarters to enhance the company's ability to serve their nationwide customer base.

To explore the new range of Delta Pumps visit the Package Pumps and Basement Drainage Systems section at Delta Membranes' website.

Whatever the needs of your project, you can rely on Delta's Technical Team to ensure you get the right advice, support, and practical help at exactly the right time its required. Call Delta today on 01992 523 523.

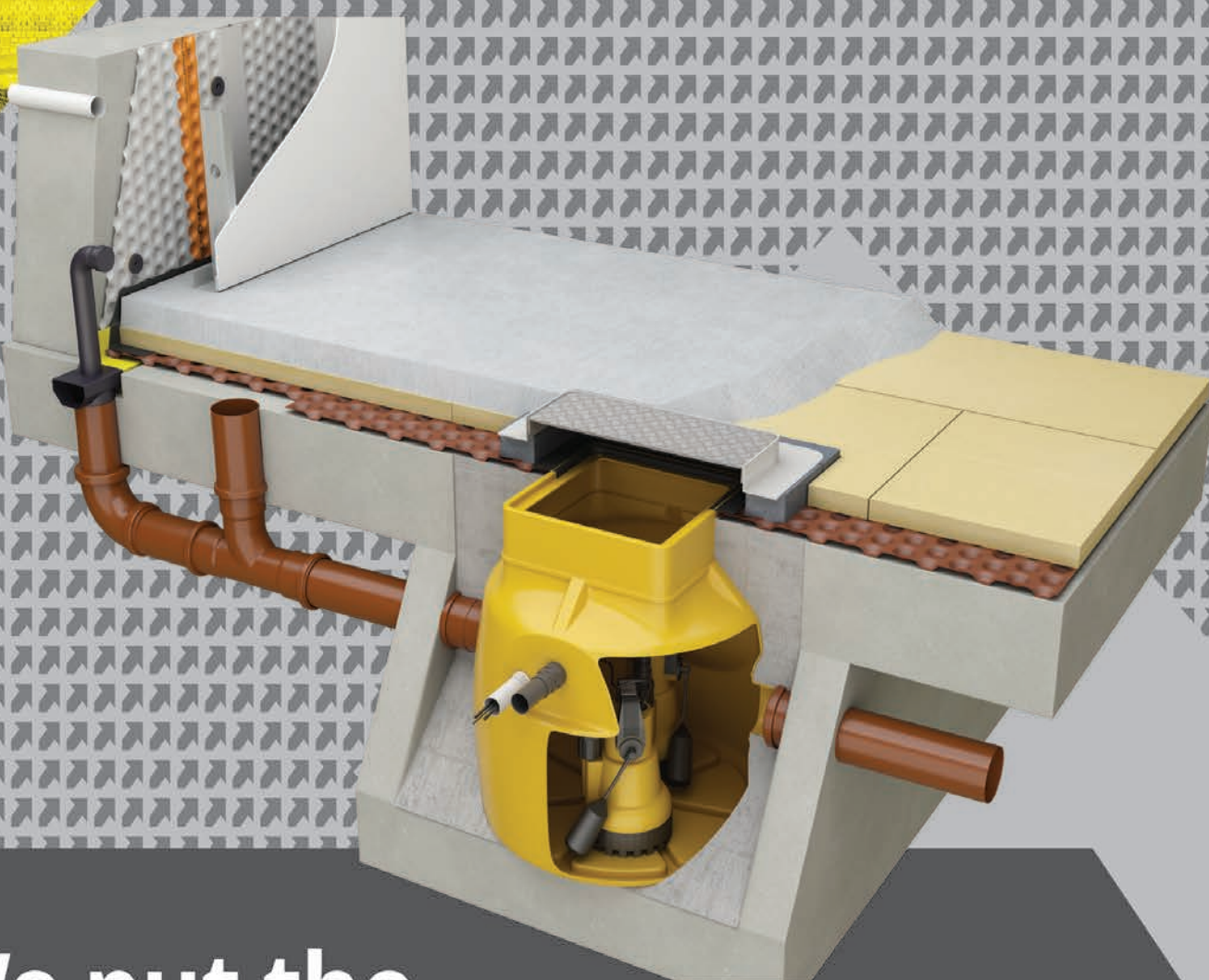
info@deltamembranes.com  
www.deltamembranes.com



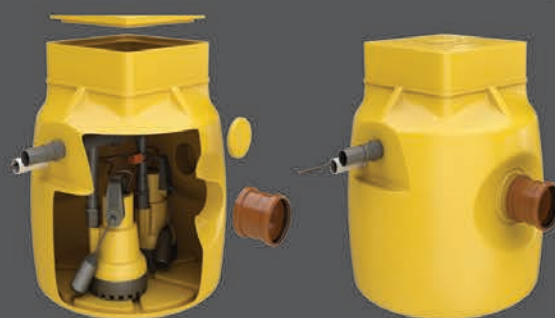


# DELTA

## PUMPS & DRAINAGE



# We put the Innovation in Structural Waterproofing





# THE WHOLE PACKAGE

As sustainability becomes a key priority in anticipation of 2025's Future Homes Standard, product specification becomes more challenging, not least for roofs. Stuart Nicholson of Marley explains how providing a single point of contact can help housebuilders produce energy-efficient, low carbon housing



The news that installations of solar PV panels on UK property roofs has risen by 40% over the past five years and by 15% in the last year alone, according to government data released by the Office for National Statistics (ONS), is further evidence of a shift towards a more sustainable approach driven by the net zero challenge and consumer demand. Indeed, solar PV is now the second largest renewable energy generator after wind.

For housebuilders, as they create new homes, or undertake refurbishment projects, the policy changes to Part L and Part S of the Building Regulations are driving the uptake of system-led renewable solutions that contribute to the building of energy efficient and low carbon homes.

And there are increasing indications that homeowners are opting to purchase homes that can offer a full package of renewable solutions to underpin a more sustainable approach and do their bit to help tackle the climate emergency.

The inclusion of renewable systems that include solar on the roof, heat pumps to provide low carbon heating and charging points for electric vehicles, are now not just 'nice to have' options, they are deemed by many would-be house purchasers to be essential.

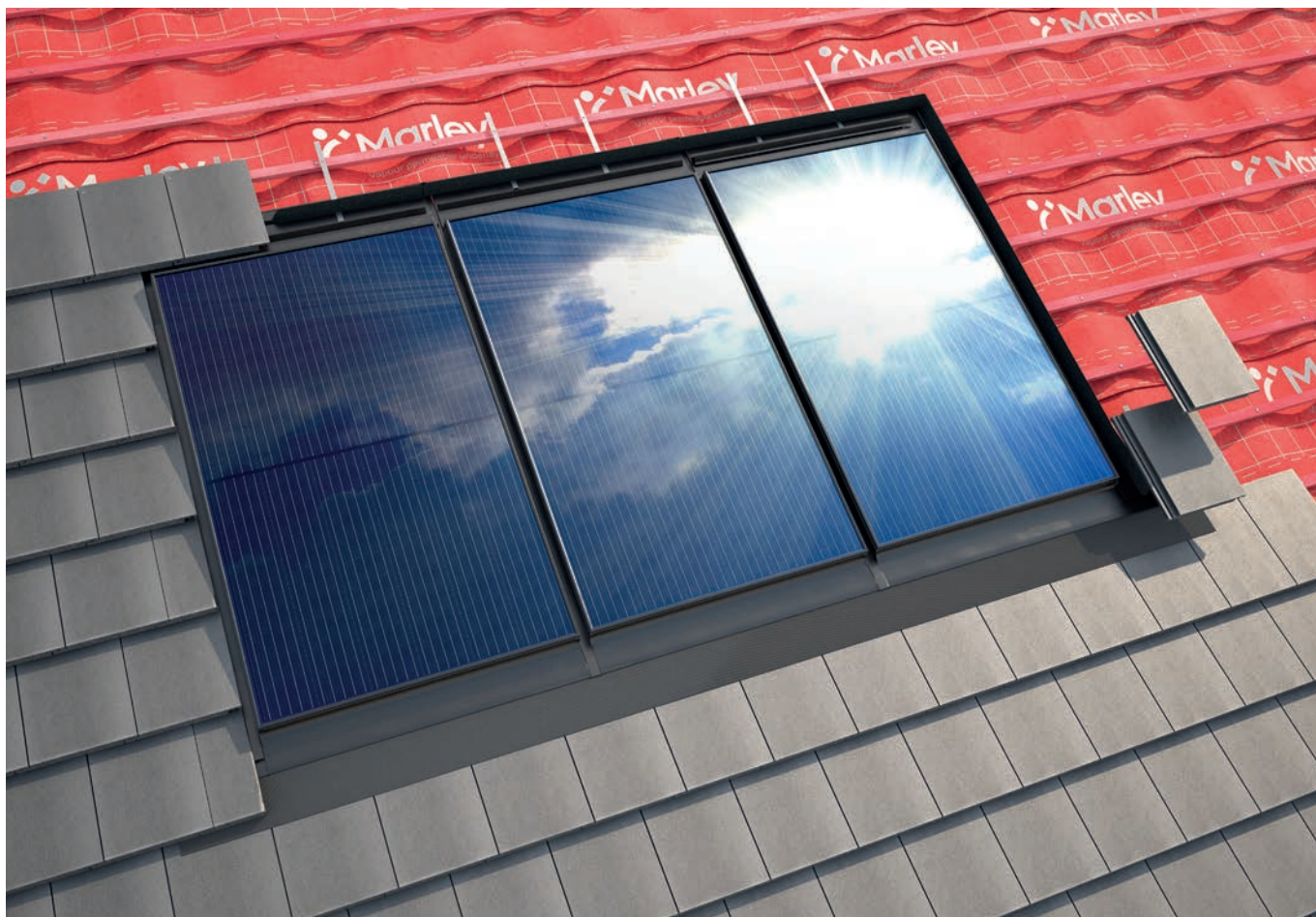
The focus on renewables is also reinforced during a time of escalating energy bills. The source and cost of energy generation in the home is now a subject of widespread interest and concern for many consumers. As a result, potential buyers want to see

housebuilders help them address future energy-related costs, and this presents a real opportunity for companies to differentiate themselves in the market.

And it is easy to see why the built environment has such an influence on how the UK is responding to the net zero challenge. According to The Climate Change Committee, it accounts for around 40% of UK greenhouse gas emissions, with approximately 14% coming from 28 million UK homes. As a major contributor to carbon emissions, the need to make the nation's housing stock more energy efficient is pivotal to net zero success.

Such market drivers are also seen in the context of preparation for the introduction of the Future Homes Standard in 2025. At that point, all housebuilders and developers will be required to ensure





new homes are specified and constructed to be highly energy efficient, use low carbon heating solutions, and be zero carbon ready.

Solar PV is expected to play a central role when the finalised specification templates are released, and the housebuilding sector will have to respond accordingly. The ONS figures perhaps underline that a rooftop revolution is already underway.

In addition (according to Zap-Map), there are now around 850,000 full electric and a further 530,000 plug-in hybrid vehicles on UK roads, and the adoption of electric powered transportation is well underway. For such drivers, the convenience and cost saving benefits of home charging facilities are important. EV charger solutions can also be the answer for housebuilders looking to comply with the requirement of Part S of the Building Regulations, which requires all new homes with parking to have EV charging capability.

As housebuilders take strategic

decisions to ensure they comply with new building standards, and try to satisfy consumer sentiment for sustainable solutions, it is important they are fully aware of the array of roof-related, system led renewable technology solutions as part of a full system, which are now available to deliver real energy efficiency and long-term sustainability gains.

Meeting sustainability objectives will be an area of growing focus for the housebuilding sector through 2024 and in the lead up to 2025 industry responses that include single source packages of renewable technology system support will be valuable.

This means 'one stop shop' solution availability to help housebuilders, many of whom will not have the time available to source from a multitude of suppliers for the varied components that make up a high performing and sustainable roof and other associated renewable technologies.

Specifying products like solar roof tiles means housebuilders can select the entire pitched roof system, with integrated solar,

from a single source, making it easier to incorporate solar into any house type and helping to navigate a cost-effective route along the road to net zero. Some EV chargers also have the ability to be connected to solar panels on the roofscape so households can access clean, renewable, and cheaper energy in the home and power up their electric vehicles at the same time.

Integrated solar PV as part of a full roofing system to aesthetically pleasing and high performing EV home charging capability, are just two of the sustainable product solutions that can support the housebuilding sector as it transitions to a low carbon future.

Accessing such answers via a single source strategy based on a partnership with proven experts can be a smart business move as sustainable specification pressures and regulatory obligations mount for the housebuilder sector.

Stuart Nicholson is roof systems director at Marley

**RENEWABLE SYSTEMS THAT INCLUDE SOLAR ON THE ROOF, HEAT PUMPS TO PROVIDE LOW CARBON HEATING AND CHARGING POINTS FOR ELECTRIC VEHICLES, ARE NOW NOT 'NICE TO HAVE' OPTIONS**

**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](mailto:cpd.uk@leviat.com)

**Vent-Axia launches Lo-Carbon Sentinel Econiq**

Vent-Axia has launched its latest flagship Mechanical Ventilation with Heat Recovery (MVHR) system, the Lo-Carbon Sentinel Econiq. With the new Future Homes Standard on the horizon, which looks set to reduce carbon emissions for new build residential properties by a further 75-80% than current Building Regulations, the Sentinel Econiq is designed to provide low carbon heat recovery ventilation for air-

tight thermally efficient new build homes. Helping housebuilders on their route to decarbonisation, the Sentinel Econiq offers exceptional efficiency, near silent operation and complete controllability, providing excellent indoor air quality (IAQ) and comfort for occupants.

0344 856 0590 [www.vent-axia.com](http://www.vent-axia.com)

**City West Dublin development protected with Wraptite® airtightness**

The superior airtightness and water resistance protection benefits of the Wraptite® external air barrier system from the A. Proctor Group is a key feature of an exciting new development at City West, Dublin, Ireland. The project development on behalf of Cairn Homes consists of over 400 residential units within nine apartment buildings ranging in height from one to nine storeys. The new homes form part of a wider mixed-use development, including retail, commercial, office units, residential amenity space, and open spaces along with services provisions to facilitate the development, including parking. The project's design was created by award-winning practice Reddy Architecture + Urbanism, and Platt & Reilly, one of the UK's and Ireland's leading partition and ceiling contractors, installed the Wraptite system. The Wraptite System is installed as an external air barrier and alternative to a traditional standard breather membrane. Wraptite is the only self-adhering vapour-permeable air barrier certified by the BBA and combines the essential properties of vapour permeability and airtightness in one self-adhering membrane.

01250 872261 [www.proctorgroup.com](http://www.proctorgroup.com)

**Wraptite® airtightness for new self-build house**

A self-build house in County Monaghan, Ireland, has been built incorporating the high-performing Wraptite air-barrier from the A. Proctor Group. The project, designed by McGuigan Architects, Monaghan, consists of a 250 m<sup>2</sup> detached private residence developed by Mark Skinnader. The client, Mark Skinnader, explains: "In the early stages of the project, the A. Proctor Group technical representative visited the site to identify a suitable airtight system. As there is no cavity in the proposed wall build-up, we chose the Wraptite breather membrane to act as a vapour permeable and airtight barrier at the sheathing board layer." The house design is a load-bearing Lightweight Steel Frame Construction. The steel frame system's exterior finish is formed of a 12 mm Y-Wall Sheathing Board, the Wraptite Airtight Breather Membrane, and a 150 mm Sto EPS Insulated Render System. The U-Value and condensation risk calculations carried out by the A. Proctor Group on the proposed through wall build-up confirmed no risk of condensation. The membrane provided both a damage resistant air barrier layer and effective secondary weather protection in one installation process.

01250 872261 [www.proctorgroup.com](http://www.proctorgroup.com)

**Triton Systems tank waterproof behemoth basement near Birmingham**

The creation of a basement complex that has taken a year to construct and which extends beneath an access road to link the main property with a separate building, is making use of multiple waterproofing products from the range of Triton Systems. The 900 m<sup>2</sup> across main house tunnel and adjacent house reinforced concrete sub-structure to what will be a six-bedroom private residence, with amenities including a swimming pool and gym, has been excavated and formed by Leicester based Beautiful Basements, in a contract valued at £800K. As well as using Triton's formable rubber Adcor and CEMflex steel waterbar products to provide continuity between the multiple sections, all of the ready mixed concrete supplied to the site by Flomix Concrete also incorporates Triton's TT waterproofing admixture. The Managing Director of Beautiful Basements, Andy Parkes, commented: "This has been a long and complex contract but it is progressing well. We always use the Triton membranes and perimeter channels as our go-to solution for these sorts of contracts, as we have enjoyed an excellent working relationship with the company going back more than a decade."

[info@tritonsystems.co.uk](mailto:info@tritonsystems.co.uk) [www.tritonsystems.co.uk](http://www.tritonsystems.co.uk)



## Marmox Multiboard shapes up for East Midlands mini-mansion



The regional housebuilder undertaking the construction of a totally bespoke private house in Leicestershire has been introduced to the multiple benefits of **Marmox** Multiboards for the first time, but its operatives are so impressed with the versatile insulating backer boards that its site manager is certain they will feature in future projects. The detached property will offer its new owners three spacious en-suite bedrooms as well as an upstairs games room with its own bathroom, while the living space downstairs links to a pool room with jacuzzi, steam room and showers. There is also an eight car garage and other outbuildings. The timber framed dwelling furthermore achieves Near-to-Zero energy standards, to which the Multiboard also contributes. The developer of the exclusive property commented: "The contractors had never seen Multiboard before, but have found it light to handle, easy to cut and fix with stainless steel screws using the special washers, and are impressed with the further benefits – in particular the good insulation values. They will definitely be using it again."

01634 835290 [www.marmox.co.uk](http://www.marmox.co.uk)



## BUILDING INSIGHTS

A PODCAST FOR THE  
CONSTRUCTION INDUSTRY

LISTEN AT [HBDONLINE.CO.UK](http://HBDONLINE.CO.UK)



**DuSo®**  
Shower Column

**HORNE**

**NBS Source**  
PARTNER

[b.link/DusoSport](https://b.link/DusoSport)

stylish good looks  
eco-friendly  
easy installation  
simple maintenance

# The artistry of modern wood burning stoves



Dik Geurts Oval Legs freestanding wood stove

**D**RU UK general manager Niall Deiraniya heralds their latest generation of designer stoves.

Ever since wood burning stoves became an essential part of the home heating mix, designers and manufacturers have strived to produce models that will appeal to aspirational homeowners.

Dik Geurts, our primary wood burning brand, has been an innovator since the 1980s, developing stoves and fires that can capture the attention of discerning customers in busy fireplace showrooms.

In 2008, Dik Geurts introduced the Aruba, a spectacular elliptical stove that featured prominently in the BBC drama series *Hustle*. This has now been superseded by the Oval, which is available in freestanding, fixed and suspended versions with greatly improved performance and efficiency. Its sales this year have surpassed all expectations.

Odin, the circular equivalent of Oval, has proved equally popular, especially the Plateau model, which sits on a beautifully crafted log storage plinth for added visual appeal and practicality. Both Odin and Oval are available in single-sided or tunnel versions. This means you can locate them in a central position in the living space and enjoy them from anywhere in the room.

Two and three-sided designer stoves are always in great demand, with panoramic fire views that bathe the home in a warm glow. These come in the shapes of the Dik Geurts Bora Corner and Vidar Triple. Both models offer multiple variations in size and configuration with ample log storage opportunities.

The past couple of years has seen a huge upsurge in sales of designer wood burning models, as consumers become more adventurous in their choice of home heating appliances. Contemporary wood stoves, with their ergonomic designs, high efficiency and low emissions, will remain a mainstay of home heating for many years to come. We expect even more exciting developments in these products in the future.

[info@drufire.co.uk](mailto:info@drufire.co.uk)  
[www.drufire.com](http://www.drufire.com)



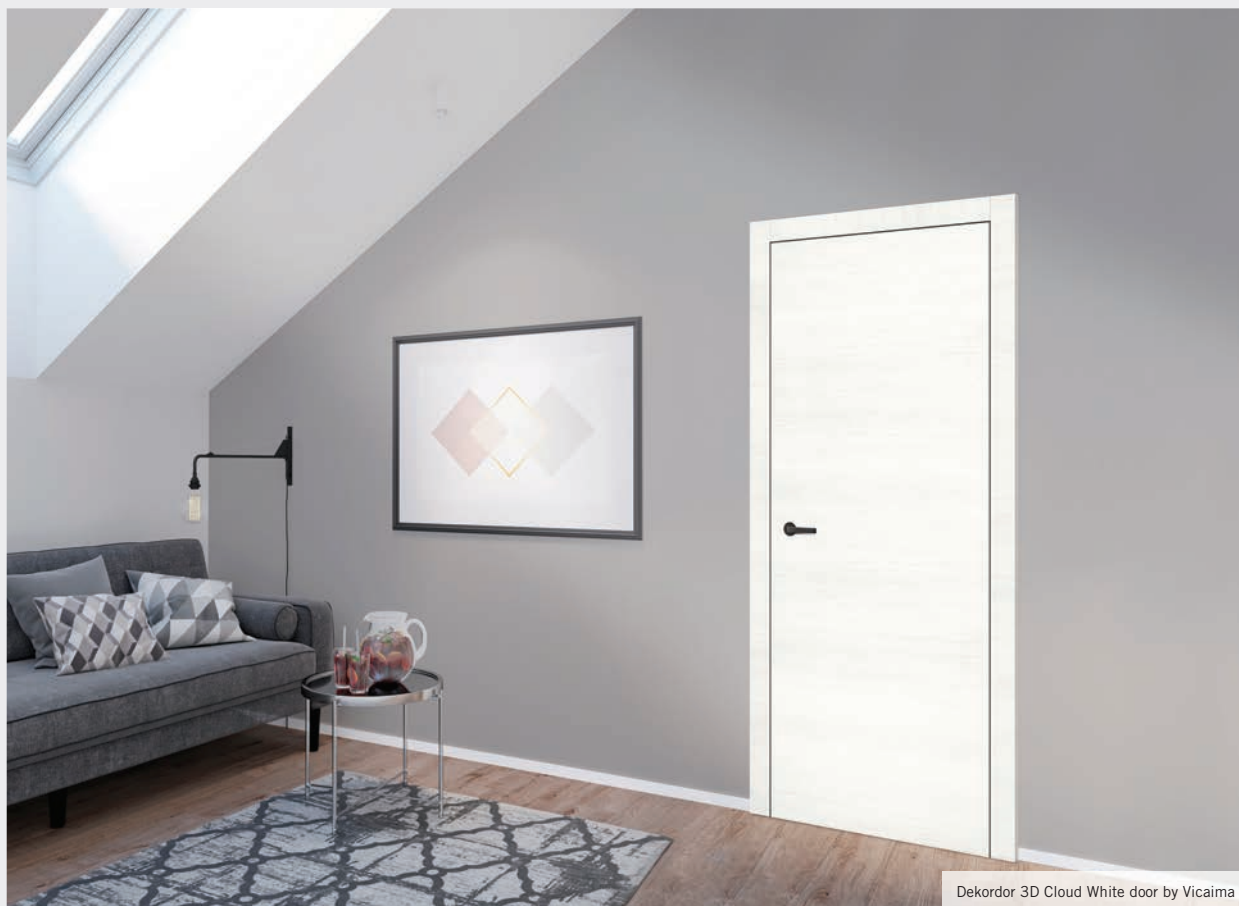
Dik Geurts Bora Corner Cubes 2-sided wood stove



Dik Geurts Odin Plateau suspended wood stove



## Interior doors – make the white choice!



Dekordor 3D Cloud White door by Vicaima

Selecting the right internal door for your interiors project, has always been important. Whether from a practical, design or budgetary perspective, interior doors are integral to well-designed living spaces, providing space functionality and reflecting general ambience and mood within rooms.

Although we live in a world where colour pervades, sometimes simplicity in design can often be the secret to creating timeless appeal. One way to achieve purity within your decor, is with the use of flush white doors. White, with its inherent ability to rejuvenate and add a fresh clean look to modern interiors is widely recognised, however it does not mean that scope for differentiation is limited. The White Collection by Vicaima, demonstrates that taking this singular tonal path can also open up a whole new world of possibilities.

Bringing together some truly distinctive finish options in white, the White Collection by Vicaima, demonstrates that this fundamental hue is not actually a single colour, but has in fact a myriad of shades with both smooth and textural surfaces. Furthermore, doors can be embellished to allow even greater design flexibility, by the addition of decorative face grooves and inlays, or even glazed patterns.

There are many inspiring finishes within the collection, however some of the most notable include: Lacdor in Satin White, with its tough, ultra-smooth curtain coated and UV cured lacquered paint finish; Dekordor 3D Cloud White, a highly tactile and durable surface, Dekordor SD White Woodgrain finished foil, for a bright white budget friendly pre-finished door. Dekordor HD White, a continuous pressure laminate

for demanding areas and for those who still prefer to paint their own doors, Primed 2 Go, with its revolutionary skin that requires no face sanding or priming and which will accept paint straight onto its smooth surface, to achieve an excellent end result.

Few door manufactures offer such a comprehensive selection of crisp white designs as Vicaima. Available in the full spectrum of dimensions, incorporating the unrivalled dependability of quality constructional cores and with benchmark performance for demanding situations. Vicaima White doors suit all types of projects and budgets, so take a closer look now by downloading the brochure or request a colour sample of your chosen finish from [www.vicaima.com](http://www.vicaima.com)

01793 532 333  
[www.vicaima.com](http://www.vicaima.com)

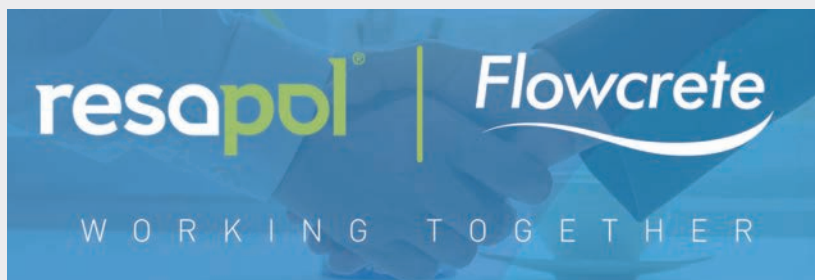
## Resapol – working together with Flowcrete

**R**esapol announce they have signed a UK wide distribution agreement with Flowcrete, a brand of Tremco CPG UK, for the Flowcrete range of products.

For more than 50 years, Flowcrete's Isocrete Floor Screeds have been the product choice on some of the world's largest and most prestigious projects in both industrial and commercial sectors. Products in the range ensure a fit for purpose solution for all types of projects, with semi-dry cementitious, self-levelling and accelerated (fast drying) screeds available, all designed to deliver a solid foundation underfoot.

Stuart Smith, Tremco CPG's Flowcrete UK & Ireland sales manager, says: "With years of knowledge and experience among our flooring experts, Tremco CPG UK's Flowcrete are trusted to deliver high quality flooring solutions for any floor regardless of scale, scope, size, or sector.

"We are excited to partner with Resapol and to have them on board as a Flowcrete distributor. By partnering with Resapol, we are expanding our reach and making sure our customers have greater access to our



flooring products. I am confident that this partnership will open exciting opportunities for both businesses and propel us to new heights. Together, we will continue to deliver excellence and provide our customers with unrivalled flooring solutions.

We are proud of the strong technical and sales backing that accompanies our flooring product and system range. We ensure that each construction project is supported during the planning and design stages and the on-site support during the construction phase, helping us to reach the desired result time and time again."

Tim Absolom, Resapol National Flooring Sales Manager commented, "We look forward to working with Stuart and his team in this partnership, I am confident that together we can service our customers with the extensive Flowcrete range in a professional and timely manner. All of our staff are highly trained on the Flowcrete range and are on hand to offer advice when choosing the correct products. We know that you can trust Resapol and Flowcrete for your next project."

0800 083 1942  
www.resapol.com

## Mira Showers joins Future Homes Hub as an associate member

**M**ira Showers, one of the UK's leading showering manufacturers, proudly announces its association with the Future Homes Hub, a pioneering initiative dedicated to addressing climate and environmental challenges in the homebuilding sector. As the only shower company currently holding an associate membership, Mira Showers is taking a step forward to achieving water efficiency while ensuring an exceptional showering experience for consumers.

The Future Homes Hub, established in response to the Future Homes Task Force's call for collaborative efforts, aims to facilitate the creation of high-quality, sustainable homes and resilient communities that align with the UK government's net-zero and environmental targets. Committed to working together, Mira Showers, the newly acquired Recoup, waste-water heat recovery specialists, and the Future Homes Hub share common values and are focused on developing innovative solutions that benefit both consumers and the planet.

Founded in 1921, Mira Showers has a rich heritage of design, innovation, and commitment to its people and community. Mira Showers remains dedicated to providing solution-led products that meet the needs of its customers while prioritising sustainability. Likewise, Recoup also shares the same sustainability ethos and commitment to pioneering environmentally

friendly change.

By becoming an associate member of the Future Homes Hub, Mira Showers is taking a proactive role in driving water efficiency and sustainable showering practices. The company's expertise, gained from over 100 years in the industry, will contribute to the development of technical solutions for regulatory changes and the overcoming of barriers to successful implementation. Mira Showers will actively collaborate with the homebuilding sector, supply chain partners, and government organisations to drive industry-led proposals for current and future policy challenges.

Mira Showers' commitment to sustainability extends beyond its association with the Future Homes Hub. The company's dedication is outlined in its Environmental, Social, and Governance (ESG) Report, which provides detailed information on its sustainability practices and initiatives, including the innovation of sustainable products and efficient water usage, and waste reduction during the manufacturing process.

The Future Homes Hub operates as a non-profit making company limited by guarantee, bringing together leading homebuilders and related organisations. With over 50 of the largest homebuilders already committed to the Hub's vision, it acts as a platform for knowledge sharing, collaboration, and overcoming



sector-wide challenges. While its immediate focus is on England, the Hub aims to extend its reach to other UK nations in the future, with strong interest already expressed from colleagues in Wales and Scotland.

Mira Showers' membership in the Future Homes Hub highlights the company's dedication to water efficiency and sustainability. By leveraging its expertise and collaborating with industry leaders, Mira Showers aims to deliver innovative showering solutions that enhance the consumer experience while conserving water resources.

0800 001 4040  
www.mirashowers.co.uk



## Zentia gives Ultima+ the ultimate upgrade with new names and new products, meet Prestige



**Z**entia, a UK leader in complete ceiling solutions, is pleased to announce the renaming of its brightest and whitest tile, Ultima+. The new family, titled Prestige, will continue to represent the pinnacle of innovation and excellence in the industry and set new standards for performance, reliability and versatility.

Prestige, which was successfully launched on 25th October, offers three reliable, bespoke solutions depending on different client needs. The flagship product, Prestige, offers smooth, finely textured laminated tiles that provide good sound absorption and attenuation, offering perfectly balanced acoustical performance. The tiles are made in the UK\*, contain up to 37% recycled content and are available in 35 colours, offering practical and creative solutions for a range of environments including meeting rooms, waiting areas and data centres.

Prestige hA+ offers the same sleek, smooth aesthetics but also forms one of Zentia's most sound absorbent suspending

ceiling tile to date, making it ideal for open plan areas that require a dose of calm and quiet such as libraries and healthcare settings. As well as an outstanding acoustic performance, the ceiling systems offer a reinforced scratch resistant face and impressive environmental credentials, being 100% recyclable.

Zentia is committed to reducing the environmental impact of its products. As such we are excited to announce the Prestige family will be the first laminated product to be added to our Pinnacle Partner offcut recycling scheme. The scheme is a promise from us, as a manufacturer, to take back and recycle all offcuts of Prestige tiles from our approved Pinnacle Partners on future projects. This will result in the reduction of the amount of waste going to landfill sites.

The final product within the range, Prestige dB, offers sound attenuation properties that is most effective for when privacy is your main concern by limiting noise being transmitted

through ceiling voids. This makes it ideal for individual offices and boardrooms. The tiles offer the same aesthetic finish that Zentia has become known for, and can be specified, as with the rest of the range, in a range of different shapes, sizes and colours\* to allow enhanced creative freedom.

Graham Taylor, Director, Sales and Marketing at Zentia said: "We are thrilled to have successfully launched our new product range, Prestige, previously known and adored as Ultima+. Whilst the name may have changed, the brand and range's reputation for reliability, quality and innovation has not, and Prestige is only another great example of our dedication to making cutting-edge ceiling tile solutions that are made in the UK and of the highest-quality, offering the best solutions for our clients."

[info@zentia.com](mailto:info@zentia.com)  
[www.zentia.com/en-gb](http://www.zentia.com/en-gb)

\*Excluding dB range and SL2 Planks

## Zentia unveils exciting new features to the Sonify range: elevating design and acoustic solutions

**Z**entia, a pioneering leader in ceiling systems, is thrilled to announce the highly anticipated launch of three new creative additions to Sonify. This innovative release introduces an array of cutting-edge features that redefine the possibilities of acoustic design, enhancing both aesthetics and functionality.

Launched on 6th September, these three new additions to the Sonify range enables architects, designers, and space planners to craft truly immersive environments that prioritise both form and function.

The update includes the introduction of Sonify Tilt, a solution for creating motion in design using angled panels, redefining precision alignment without the need for cable adjustments. The incorporation of 3D free-flowing materials opens up new avenues for captivating raft solutions, making spaces more engaging and visually stimulating. Installation is seamless and swift, and the innovative angles not only serve as design elements but also enhance sound absorption by disrupting sound waves and curbing reverberation within the environment.

Another addition is the introduction of Sonify Highway, which introduces an innovative design approach by allowing wider gaps between panels, emphasising the support grid as a prominent visual element.



The dual layer grid, available in an array of 35 colours, contrasts aesthetically with panel and soffit shades, injecting a personalised flair. Sonify Highway not only showcases the grid but also facilitates easier

access to areas requiring constant entry without the need for panel adjustments, allowing designs to evolve and reflect the dynamic nature of modern spaces.

Sonify Wall Absorbers are also now available, offering pioneering solutions in acoustic design. Sonify Wall Absorbers can effortlessly adhere to walls offering rapid and efficient installation. Architects and designers can leverage the panels as visual elements, combining multiple units to create patterns and infuse colour into the rest of the room. By achieving a vertical dimension of sound absorption, the wall absorbers deliver both acoustic and visual excellence.

John Spicer, Head of New Product Development at Zentia, expressed the company's enthusiasm about these exciting new features: "With these latest additions to our Sonify suite, we empower architects and designers to go above and beyond traditional acoustic solutions, and foster boundless creativity. Each component may seem small, but as a collective, they amplify design choices, offering a new dimension of individuality."

0191 497 1000 [www.zentia.com/en-gb](http://www.zentia.com/en-gb)





## Turning heads for assisted showering

**H**orne shower panels are designed specifically to withstand challenging environments: the aluminium extrusion casing, anodised and epoxy-coated, is stable and robust for a maximised lifespan. Shower head and control components are highly durable; chromium-plated stamped brass, die-cast zinc and stainless steel are tolerant of accidental, or intentional abuse. The extensive range serves sport and leisure to acute healthcare, residential care, a variety of assisted showering applications, to secure facilities, as well as highly specialised niche applications.

Responding to a series of requests from Occupational Therapists (OTs) and care professionals, Horne has created a new range of dual-outlet (featuring a fixed vandal resistant (VR) shower head and a flexible hose with shower handset) models for assisted showering. Specifically requesting a diverter valve that is manually, rather than automatically, operated to switch flow

between the VR head and the handset, OTs predict that assisting challenging clients to shower will be easier to manage and reduce the risk and severity of escalation behaviours. The range includes a wall-mounted riser rail, available in white/grey, and dementia and sight-loss friendly deep orange/grey. It doubles as a robust and supportive grab rail and features an inclusive-design, BS 8300 compliant, handset holder. Its unique design, with precision fishing-reel technology, allows for exceptionally easy movement of the carriage, yet retains a tight holding grip once at the user's optimum position. Matching grab rails are available if required.

A pipe cover is included and is available in two lengths, to accommodate for different ceiling heights: 465 mm (T4 coding) and 940 mm (T9). As a security cover, it protects the internal ILTDU thermal disinfection unit (for waterborne pathogen control) whilst still providing key access for its operation. The pipe cover also improves installation



aesthetics and shower hygiene, being easier to clean than exposed pipework.

More info at [b.link/Included](https://b.link/Included). Architects, OTs and residential care providers can see the new range at Stand J56 at The OT Show, NEC, 22-23 November 2023.

01505 321455  
[www.horne.co.uk](https://www.horne.co.uk)

**NBS Source**  
PARTNER

**DuSo®**  
Shower Column

**HORNE**

**stylish good looks**  
**eco-friendly**  
**easy installation**  
**simple maintenance**

[b.link/DusoSport](https://b.link/DusoSport)

## HiB introduces the Rubin Mirror: The latest in mirror technology

**H**iB, a leading innovator in bathroom products, has unveiled the Rubin Mirror, a stunning combination of contemporary design and cutting-edge technology.



Setting itself apart with a distinctive design, Rubin blends style and practicality seamlessly. Equipped with state-of-the-art features, the mirror boasts the latest heat pad technology covering over 75% of the surface, reducing condensation for enhanced visibility.

The illuminated rectangular frame features colour-changing technology and three brightness levels, all controllable via touch-sensitive operations. This ensures the perfect ambiance for any task, making Rubin a versatile addition to modern bathrooms.

Available in two sizes (80cm x 50cm and 90cm x 60cm) and two finishes (black and brushed brass), Rubin can be hung in landscape or portrait, offering flexibility in bathroom design. The mixture of curves and straight edges gives Rubin a distinctive, trendsetting pill shape.

Talking about the Rubin mirror, HiB Contracts Coordinator Sophie Watts said: "The Rubin mirror is ideal for a variety of bathrooms thanks to its size and finish options, but what really makes Rubin a showstopping mirror is its design. The use of negative space to create a layered design is really eye-catching and we hope our customers love it."

020 8441 0352  
[www.hib.co.uk/products/rubin-led-mirror-black](http://www.hib.co.uk/products/rubin-led-mirror-black)



## Make more of Herringbone with IVC Commercial

**M**oduleo Roots 55 Herringbone is the luxury vinyl herringbone floor from IVC Commercial.

With a natural look and texture and a performance construction, Moduleo Roots 55 brings interiors closer to nature with a floor finish that's durable and easy to look after.

Now, with Moduleo Roots Herringbone, projects can benefit from the quality and affordability of IVC Commercial's Belgian-made LVT floors in two dryback herringbone plank formats. Moduleo Roots 55 Herringbone is the ideal solution for housing developments and commercial offices wanting a herringbone look in a finish that needs to deliver a tough and easy to look after floor.

Herringbone Classic (40.6 x 10.7 cm) is a versatile plank that's ideal for housing projects, while Herringbone Short (63.2 x 15.8 cm) stops large areas looking too busy. Both sizes are available in a range of natural wood looks, matched to Moduleo Roots 55 standard planks. Selected designs are also available with EIR (embossed in register),



where the texture mimics the wood grain pattern for improved realism.

Every Moduleo floor is designed and made in-house, so that every aspect of its quality can be controlled. Moduleo luxury vinyl tiles feature up to 30% recycled content from production waste, processed in the industry's

largest in-house PVC recycling facility. Using IVC Commercial's ReCover programme can also ensure that installation waste is recovered and recycled.

01332 851 500  
[www.ivc-commercial.com](http://www.ivc-commercial.com)



## Gradus takes XT stair edgings to the next level

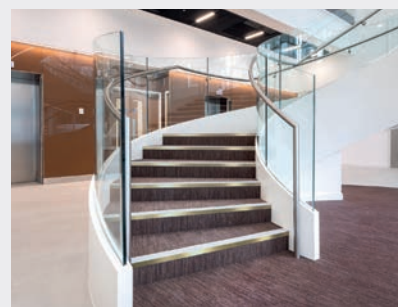
Gradus is proud to announce the launch of several new additions to our XT stair edgings range, the market-leading solution for reducing the risk of slips, trips and falls on stairs. Whether you are looking for a traditional, elegant look or a contemporary, modern effect, we have the perfect option to suit your project; particularly schemes within hospitality & leisure, residential developments or commercial office. The recent updates our XT range include:

**New XT Bronze range** - a stunning collection of 14 stair edging profiles offered in Polished Bronze or Satin Bronze finishes, with configurations available to suit various floorcoverings and step shapes. Choose from Interior, Xtra-grip or our new metal castellated inserts and complete the look with our new welded corners and nap trim, also available in matching finishes.

**New XT Aluminium finishes** - the range has been further strengthened with the

introduction of six new attractive finishes; Antique Brass, Antique Bronze, Black Anodised, Polished Chrome, Satin Chrome and Brushed Stainless Steel, in addition to the standard Aluminium finish. These finishes are available across all XT Aluminium profiles and perfect for schemes looking to create a more modern and minimalist aesthetic. Compatible welded corners and nap trims are also available in matching finishes.

**New metal castellated insert** - A durable and slip-resistant metal insert that can be combined with any profile from our XT Bronze or XT Aluminium ranges to provide an all-metal solution. The metal castellated insert features the unique insert design synonymous with XT stair edgings, which extends around the entire leading edge of the step to ensure that foot contact is always made with the slip-resistant element. Available in nine finishes that correspond with the aforementioned profiles, they enable the design freedom to either select a matching



profile and insert finish or choose contrasting finishes to create your own unique effect.

**New insert colours** - an additional six Interior & Xtra-grip insert colours are offered across XT Bronze & XT Aluminium. The six new colours mean that there is now a choice of 20 Interior Standard Finish and 18 Xtra-grip insert colour options available in total, meaning there is an insert colour and style for every environment. These new colour options can be specified now, with stock available from January 2024.

01625 428922

[gradus.com/download/brochure-xt-stair-edgings-november-2023](https://gradus.com/download/brochure-xt-stair-edgings-november-2023)



## BUILDING INSIGHTS

### A PODCAST FOR THE CONSTRUCTION INDUSTRY

LISTEN AT  
[SBHONLINE.CO.UK](https://sbhonline.co.uk)



## Schlüter-LIPROTEC shines a light on interior design

Schlüter-Systems has strengthened its portfolio of bathroom systems through the availability of advanced control light technology which enhances aesthetics while also offering almost unlimited creative choice. Encompassing the latest LED technology, Schlüter-LIPROTEC creates restful lighting for relaxing spaces, or bright, colourful lighting for a busy family bathroom or kitchen. Schlüter-LIPROTEC has a broad range of applications, from direct or indirect lighting effects, enabling the interior designer, architect or property owner to illuminate feature walls, pictures, tiled areas such as shower enclosures or study spaces, kitchen countertops and stairways; in fact, anywhere the creative mind can conceive a plan for. The collection offers the option of neutral white, warm white or RGB+W LEDs; the latter allowing for coloured and white LEDs on a single strip, to generate coloured light or temperature-controllable white light. The system can be programmed to deliver a choice of 16 million colours via a Bluetooth app and remote control.

01530 813396 [www.schluter.co.uk](http://www.schluter.co.uk)

## Kinedo launches new Ekinox range



Kinedo has added another stunning range of walk-in shower enclosures to its shower portfolio in the shape of the stylish Ekinox+ range. The stand-out feature of the Ekinox+ range is the option of striking, coloured profiles such as the beautiful and unusual brushed cobalt blue aluminium profile and the vibrant copper or brushed stainless steel option. The Ekinox Solo is a simple glass panel option for an open showering area. It can be installed in a corner, in a recess or against the wall; the latter option requires 2 reinforcement bars. Ekinox Duo features a 180° pivot section to eliminate splash and can be installed with a choice of a chrome straight reinforcement bar or a floor-to-ceiling bar. The Ekinox Corner features a fixed panel for corner installations with the Ekinox Solo and Duo.

020 8842 0033 [www.kinedo.co.uk](http://www.kinedo.co.uk)

## Advanced membrane chosen

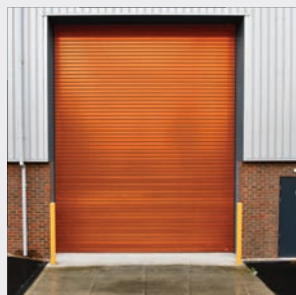


Building membrane specialist, ITP Ltd, has supplied the UK's most advanced breather membrane for a development of supported living apartments in Gateshead by Home Group. Stamisol Safe One was installed within the external wall to maintain the long-term condition of the building envelope. Winner of Product of the Year in the Facade 2022 Design Awards, Stamisol Safe One is the first breather membrane in the UK to combine a W1 rating

for water tightness, breathability to BS5250 standards, waterproofing of 7,000mm, UV resistance of 5,000 hours and a Euroclass A2 fire rating.

01347 825200 [www.itpltd.com](http://www.itpltd.com)

## CGT Security launch a new range of high-performance industrial shutter doors



As an industry-leading manufacturer of innovative security shutters, CGT Security are known for delivering quality solutions that are beyond the traditional shutter door. So it is no surprise that their new product, 'Intimidator' presents the most comprehensive range of high security industrial shutter doors, successfully combining maximum performance with multiple third-party accreditations. The Intimidator range is certified to security level LPS 1175 Issue 8, by the Loss Prevention Certification Board (LPCB), with the product portfolio IR1 to IR4 covering A1 (SR1) to D10 (SR4) requirements in addition to having Secured by Design approval. The innovative Intimidator industrial doors have excellent thermal and acoustic performance options as well as hurricane wind-load resistance, making them ideal for a much wider range of industrial and commercial applications. Available as single skin profiles with optional perforation, or double skin profiles with a choice of insulation materials, the Intimidator also allows manual or automatic locking selections giving complete versatility for all types of industrial purposes.

0330 024 9409 [cgtsecurity.com](http://cgtsecurity.com)

## Sto helps refurbished homes shine brighter and greener



A refurbished housing development is benefiting from an aesthetic, energy-efficient exterior thanks to a Sto external wall insulation system. Located in Bordon, Hampshire, The Pines features 96 former Ministry of Defence (MOD) properties, which have been transformed into modern two to three-bedroom houses and maisonettes. The refurbishment has been completed by Project Worx Ltd on behalf of Annington, one of the UK's largest private owners of residential property, most of which is occupied by military families. Square 1 Architectural Solutions specified and installed the StxTherm Robust external wall insulation system to the exterior of the existing properties. Ideal for low to medium rise housing, StxTherm Robust prevents heat loss and eliminates thermal bridges to enhance energy efficiency. By insulating the outer leaf of each property, the entire structure becomes warm and dry, reducing the risk of condensation and associated mould growth. The installation of the system was completed with a final coat of Stomix Silkotex HD render. This cement-free, silicone resin render is available in a variety of colours.

0330 024 2666 [www.sto.co.uk](http://www.sto.co.uk)



# Pump up the heat

One area with huge potential for decarbonisation is heating and hot water. While this issue must be tackled in all buildings, there is a huge opportunity for housing associations specifically to take steps to decarbonise as Achilleas Georgiou from Mitsubishi explains

Currently, heating and hot water are significant emitters of carbon, and home heating contributes up to 17% of the UK's carbon emissions. Around 1,600 housing associations in the UK make up 20% of the country's housing stock, so changing how they provide heat for their tenants is vital, and decarbonising this section of the UK's housing market would be a huge step towards net zero. To get there, more energy-efficient technologies are a must. These will not only lower emissions but lower energy costs – keeping bills down and helping to keep tenants out of fuel poverty.

Recognising this opportunity, the UK Government has supported the shift to renewable technologies in housing associations, offering support such as the Social Housing Decarbonisation Fund to improve the energy efficiency of social rented homes.

## HEAT PUMPS: THE SUSTAINABLE CHOICE FOR HOUSING ASSOCIATIONS

Heat pumps are a reliable option for making heat more sustainable. Their efficient performance allows them to produce 3 kW of heat energy for every 1 kW of electricity consumed, while a gas boiler produces less than 1 kW.

As well as reduced energy usage, there is tangible evidence that heat pumps keep energy prices down for social housing tenants. For example, the Clydesdale Housing Association saved around £850 per year for each tenant after installing over 30 air source heat pumps. This helped keep tenants out of fuel poverty, all while contributing to a greener economy.

## ENSURING OPTIMAL PRODUCT PERFORMANCE AND MINIMISING DISRUPTION

Effective management and maintenance of heating systems play an important role in ensuring tenants benefit from cost efficiency and stay comfortable. Poor visibility of the internal workings of heating systems means inefficiencies often go unchecked, and repairs almost always need to be done in person. Heat pumps offer an alternative solution. Many heat pumps are built with technology that allows them to be monitored and controlled remotely and can even have issues fixed by expert engineers without the need for a site visit.

Housing associations can greatly benefit from this. By giving tenants close control over their heating and making maintenance and repairs straightforward, the product's lifespan can be extended. Greater efficiency leads to greater return on investment and ensures systems work effectively for tenants.

## MAXIMISING PRODUCT LIFESPAN AND TENANT COMFORT

Extending the lifespan of products is also essential to maximising investment, and keeping waste energy to a minimum is a critical way to ensure this. Fortunately, heat pumps have this consideration built in.

For example, heat pumps allow the temperature to be adjusted individually in each house or apartment, meaning tenants can choose what is appropriate for them. The benefit of this over a centrally controlled temperature is that no energy will be wasted heating homes that prefer a cooler temperature. Not only this, but it keeps tenants happy and comfortable, too.

That said, tenants should be informed on the most effective way to operate their heat pump. Heat pumps are designed to run for longer periods and keep the room at a constant temperature, rather than being turned on and off regularly like a gas boiler – which newer users may not initially understand.

The ease of controlling the temperature of spaces is another measure that will ensure energy-efficient use. Remote controls and apps help tenants manage their heat pump from their personal devices. From there, they always have visibility over how the system runs, set weekly heating schedules, and even see the



weather forecast to plan future energy use.

This type of cloud-based monitoring is helpful for tenants and makes professional management and maintenance of heat pumps much simpler. Heating engineers can access the systems' monitoring information, data, and diagnostics remotely – enabling them to fix some technical issues remotely. With more seamless maintenance and energy-conscious controls, heat pumps make efficient use simple.

## FINAL THOUGHTS

As the UK advances toward achieving net zero emissions, we must rethink how the country's housing stock is heated. This is especially pressing in the case of housing associations and large developments, where tenants don't have as much choice over their heating systems. Heat pumps can help greatly reduce emissions across the board and provide other benefits to tenants, housing associations, and those who maintain the products. Lower energy usage, greater efficiency, and sophisticated remote access make heat pumps an effective solution for approaching modern heating.

This technology is already available, and it can make a real difference to home heating.

*Achilleas Georgiou is communications manager at Mitsubishi*

## Senior's SF62 system gets to work in Newcastle's landmark office development

An innovative aluminium curtain wall solution from Senior Architectural Systems has helped create a stunning facade for Bank House, a new state of the art office development in the heart of Newcastle.

At 12 storeys, Bank House is the tallest new build office building to have been constructed in the city in recent years and as such, required a robust solution to create the large expanses of floor to ceiling glazing designed by Ryder Architecture. Senior's innovative SF62 aluminium curtain wall system was the ideal choice, achieving the desired slim sightlines with the added reassurance of being able to accommodate greater structural movement.

Combining an attractive robust aluminium frame with a wider 62 mm box, the increased rebate size of Senior's SF62 system means that it is possible to provide either additional clearance between the section and infill, so that the system is able to allow the glass to move more, or greater edge cover for issues such as guarding. Benefiting from the



inherent strength of its aluminium frame, the new SF62 curtain wall system can also support transom loads of up to 750 kg and achieve longer glazing spans without the need for additional supporting steel to be used.

Senior's SF62 aluminium curtain wall system was fabricated and installed at Bank House by facade specialists Topside Group for main contractor Bowmer & Kirkland, who has constructed the new development

to achieve a BREAAAM rating of 'excellent'. Like all of Senior's aluminium fenestration products, the SF62 curtain wall system is manufactured from recycled aluminium and can be fully recycled at the end of the building's life. While in situ, Senior's SF62 aluminium curtain wall system provides exceptional thermal performance to ensure compliance with the latest Part L requirements and the slim sightlines help maximise the flow of natural light.

The stunning glazed facade also provides the open-plan office interiors with spectacular 360° views of the surrounding city, including many of the area's most famous landmarks such as Tyne Bridge, river and Quayside quarter.

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

01709 772600  
[www.seniorarchitectural.co.uk](http://www.seniorarchitectural.co.uk)

## Renson UK contributes to the redevelopment of London's iconic Perfume Factory

Leading ventilation louvre specialist Renson UK has supplied its market leading systems to the infamous Perfume Factory in London, contributing to an overall redevelopment project.

Designed by leading UK architecture and interior design firm Carey Jones Chapman Tolcher and managed by Ardmore Construction, the redevelopment at the site of the former Elizabeth Arden Perfume Factory marks a significant milestone for the site.

Comprising of five buildings, including a 31-storey tower, the development consists of over 600 bespoke student rooms and 85 build-to-rent apartments, along with a seven-storey commercial office space with retail units on the ground floor. All five towers are constructed using traditional brickwork, including the 96 m central structure, which forms the site's iconic identifier.

It was critical to Carey Jones Chapman Tolcher that all parties involved in the project had experience in the construction of high-



rise developments, and with 50 years of experience in designing, developing and manufacturing high-performance ventilation products, Renson UK was the perfect candidate for the supply of louvres.

For this project, Renson UK supplied its 414 glazed in louvres, which are made from extruded aluminium sections and stainless steel 304 insect screen.

414 louvres have a blade pitch of 33.3 mm and can accommodate most glazing thicknesses. They also have a nominal free area of 50%, and are weather and aerodynamically tested to EN 13030, having achieved a class A weathering classification.

Renson UK supplies fully tested, high-quality louvres and mechanical ventilation products for every application.

These include removable louvre panels, door systems, cladding systems, specification trickle vents, and self-regulating window ventilators.

All products offer outstanding weather-tightness and have been fully tested to the highest standards, having undergone rigorous BSRIA testing.

[renson.eu/en-gb/for-professionals/contact](http://renson.eu/en-gb/for-professionals/contact)



## Crittall's window display



A town centre shopping mall in Stroud, Gloucestershire, has been given a new lease of life with Crittall playing a significant role in the makeover.

Dransfield Properties opted for a complete transformation of the Five Valleys Shopping Centre to include new retail outlets, as well as enhanced car parking, office space and a community hub with library.

Key to the interior appeal was replacing a

jumble of disparate shopfronts and signage with a more ordered, modern appearance. Sheffield-based Dixon Dawson Architects selected Crittall W20 steel profiles for the task.

"The client wanted a particular style of glazing. I was familiar with Crittall and saw it as the best solution," said Guy Dixon Dawson. "The whole mall was remodelled; frankly it was a bit of a mess

beforehand. Now, everything, ceiling to floor, has been upgraded."

The result is a simplified approach with Crittall's slender steel profiled windows and doors providing a uniform appearance. All the cold form doors were a mix of hinged and automatic sliders.

01376 530800

[www.crittall-windows.co.uk](http://www.crittall-windows.co.uk)

## Glidevale Protect publishes Environmental Product Declarations for key ranges

Leading UK building products manufacturer Glidevale Protect has published third party, independently verified Environmental Product Declarations (EPDs) for three of its construction wall membranes to assist specifiers by providing clear sustainability and life cycle assessment data.

Created by One Click LCA and verified by the EPD Hub in accordance with EN 15804+A2 & ISO 14025 / ISO 21930, the product and factory specific EPDs do not contain average calculations and have been assessed cradle to gate with modules A1-A3, C1-C4 and D, with the life cycle analysis (LCA) published in accordance with the reference standards ISO 14040/14044. Detailing key environment impact data including global warming potential (GWP) calculations as well as total energy and water use, the EPDs form a transparent analysis of each product's carbon footprint to give full reassurance in specification.

The development of EPDs for Protect TF200 Thermo, Protect VC Foil Ultra and Protect TF200 demonstrates Glidevale Protect's continued commitment to and investment in sustainability. Protect TF200 Thermo is a reflective breather membrane for external walls which can enhance thermal performance and Protect VC Foil Ultra, a reflective air and vapour control layer (AVCL), offers low emissivity to enhance the thermal performance of internal walls, ceilings



and floors. Both can be used together as a system to help maximise the energy efficiency rating of a building and control condensation risk. Protect TF200 is a high performance breather membrane, offering protection to external walls and minimising the risk of interstitial condensation.

Detailed EPDs help specifiers to understand a product's sustainability credentials when working to more stringent regulations such as Building Regulations Part L as well as whole

building environmental assessment standards like BREEAM. EPDs quantifiably demonstrate the environmental impact of a product and data is independently verified and certified in line with internationally recognised standards, focused on the product's whole life cycle.

For more information, please email [info@glidevale.com](mailto:info@glidevale.com) or follow Glidevale Protect on LinkedIn.

0161 905 5700 [glidevaleprotect.com](http://glidevaleprotect.com)

## Ultra high pressure jetting a concrete removal 'gamechanger'

A specialist team from drainage and wastewater specialist Lanes Group plc has prevented the need to partially demolish three houses by using a water jet to remove concrete from a sewer pipe.

The ultra-high pressure (UHP) jetting system, which powers the water jet to over the speed of sound, was deployed after the foundation concrete in the pipe proved too tough for conventional robotic cutting.

The only practical alternative would have been to excavate and replace the pipe, buried three metres beneath extensions built behind the row of nine terraces homes in Ilford, north east London.

That would have involved the extensions for three of the homes being all but demolished, then reinstated, with the occupants placed in temporary accommodation while the work was done.

Lanes carried out the UHP jetting project on behalf of Thames Water and has now used the technique to complete other challenging concrete removal projects for the water company.

Lanes Operations Manager Calvin May said: "This was one of the toughest concrete removal projects we've ever tackled, and involved contamination of a 150mm-diameter sewer.

"We believe the concrete may have been linked to a nearby building project. Foundation

concrete is particularly hard and, in this case, had time to set solid, completely filling the pipe for 11 metres.

"We didn't make very fast headway with a robotic cutter, which works by grinding down the concrete, so we needed a different approach.

"UHP jetting turned out to be a gamechanger. It was over 20 times as fast as using robotic cutting and prevented the need for an alternative solution that would've been much more costly and disruptive."

It meant the concrete could be removed in 15 shifts, equivalent to three weeks' work.

Lanes, Thames Water's wastewater network services maintenance partner, developed a business case for using UHP jetting to ensure it would work and be cost-effective.

This led to the initial hiring of a UHP jetting system to ensure the concrete removal process was effective - not least because a tanker was having to visit the site every day to remove sewage building up behind the blockage.

Lanes selected a Falch UHP pump combined with an IMS Robotics jetting system, capable of delivering a water jet at 2,500 bar (over 36,000 pounds per square inch).

Six Lanes wastewater operatives underwent Water Jetting Association hydrodemolition training and equipment supplier instruction to give them the knowledge and skills needed to



operate the system.

The UHP jetting system has a jetting nozzle on the end of a hose encased in a flexible steel coil sheath. Once guided into the pipe, a packer is inflated with compressed air to hold the nozzle firmly in place inside the pipe.

A mini camera and powerful LED lights allowed the Lanes operative to then view the jetting operation, while controlling the nozzle with a joystick to direct it most effectively at the concrete.

The concrete was removed in one-metre sections, with the exposed pipe strengthened by installing a cured in place pipe (CIPP) point liner made from fiberglass matting, impregnated with resin.

Once the resin had cured, the liner created a durable new concrete-free pipe within a pipe, with a design life of at least 50 years.

0800 526 488 [www.lanesfordrains.co.uk](http://www.lanesfordrains.co.uk)

## Warning: Are your louvres non-compliant?

*Renson UK National Sales Manager Martin Daniels explains how honest testing isn't always as transparent as it should be...*

When specifying louvres for architectural projects, it's imperative that the products selected are of the highest quality. At Renson UK, we've spent the past 50 years designing, developing and manufacturing high-performance ventilation products, supplying fully tested, high-quality louvres and mechanical ventilation products for every application. It's during this time that we've come across many non-compliant louvres in the market – and it all comes down to testing.

The industry standard for weather testing of louvres in the UK was developed by the Building Services Research and Information Association (BSRIA) in collaboration with the Heating, Ventilation and Air Conditioning Manufacturers Association (HEVAC), and was adopted in 2001 as British and European Standard: BS EN 13030:2001.

Since then, BS EN 13030:2001 has tested louvres in three key performance



areas – water penetration, or the ability to prevent rain penetrating the louvre; pressure drop, or how freely the louvre allows air to pass through; and overall performance, a combined measure of both. The tests themselves simulate the real-life operating conditions that a louvre will undergo when installed, enabling clients to compare one manufacturer's performance against another.

During the water penetration test, the louvre is subjected to a simulated rainfall rate of 75 l/h and a wind speed of 13 m/s (30 mph). The rejected water is collected in the weather section, and water in the collection duct is measured to calculate the percentage of water penetrated through the louvre. In

addition to the simulated wind at 13m/s, air is drawn through the louvre to simulate inlet ventilation rates.

The problem is, the BS EN 13030:2001 test does not measure or give consideration to the way the water is collected, and it's therefore easy to get away with placing an abnormally large collection plate behind the louvre simply for the sake of the test.

Therefore when comparing different louvres, it is important to obtain a full copy of the test report – a full report will show if any large collection trays were incorporated.

Because of this loophole in the BS EN 13030:2001 test, we've seen a countless number of louvres being approved and highly rated, but that end up being non-compliant, and at Renson, the last thing we want to do is let our customers down with an inferior product. We therefore provide all our customers with full test reports for complete transparency – additionally, all our test reports are freely and easily downloadable from our website.

[www.renson.eu/en-gb/for-professionals/contact](http://www.renson.eu/en-gb/for-professionals/contact)



## Wraptite® airtightness protection for Northampton school for boys

The Wraptite external air barrier system from the A. Proctor Group has been chosen for its airtight benefits for a Department for Education (DfE) funded project of the offsite construction of Northampton School for Boys Multi-Academy Trust.

Utilising Seismic technology for the Northampton school modules will deliver important benefits; it is 75% faster and achieves a 47% improvement in value compared to traditional construction techniques; it even offers a 33% improvement in speed when compared with standard modular construction. In terms of sustainability, Seismic delivers significant reductions in both operational and embodied carbon of up to 70%. This is achieved through factors including design efficiency, materials selection and manufacturing effectiveness, leading to limited wastage.

A vital element of modern design and construction is to maximise energy efficiency.



Controlling spiralling energy costs is particularly key in educational facilities such as schools and colleges.

The Wraptite air barrier system is a safe and simplified membrane system. It provides a fully self-adhered vapour permeable air barrier certified by the BBA and combines the critical properties of vapour permeability and airtightness. This approach saves on both the labour and material costs associated with achieving the energy efficiency demands in buildings.

The self-adhesive design is perfectly suited to offsite manufacture, easy and quick to apply. Installing Wraptite at a low level in the factory enables the membrane to be easily applied and avoids the risks of working at height. Offsite installation also enables the product to be installed in completely dry conditions to ensure full adhesion in a quality-controlled environment to deliver the required airtightness requirements.

The high vapour permeability of the Wraptite air barrier allows the substrate beneath to dry quickly and moisture vapour to escape and reduces the likelihood of mould, mildew, condensation, timber distortion and metal corrosion.

Also specified alongside Wraptite was Protech GM Super a high-performance proprietary reinforced gas barrier that has been specifically designed by the A. Proctor Group to conform with the latest guidance.

01250 872261 [www.proctorgroup.com](http://www.proctorgroup.com)

## Kinder, Kinder & Kinder: Sapphire's Next Generation Balcony is revealed

Balcony manufacturer Sapphire Balconies has unveiled their most sustainable balcony product yet, quickly gaining a reputation as a 'kinder' next generation of Balconies.

Sapphire Balconies unveiled the Next Generation, their most sustainable suite of balcony innovations to date, at the Resibuild Vision Construct event in Wembley. Included amongst their developments are a reduced weight frame, a more sustainable framework, increased aesthetic possibilities and developments that make the Next Generation Balcony safer for installers thanks to multiple-award-winning technology, such as their patented Remote Locker Device (RLD) and Passport® digital traceability and quality control app.

Expected to be a game-changer for the external envelope space, Sapphire's Next Generation Balcony is touted as being lighter, safer, having more possibilities and being kinder. The Next Generation balcony is lighter due to new Cassette® engineering. This allows for less structural load back to the building and less raw material. The Next Generation is safer thanks to new forms of installation equipment including Sapphire's patented Remote Locker Device (RLD), ensuring that installers can fit the balcony from within the building. More possibilities than ever before

are available, with new connection methods like the Clip-On™ connection, new Cassette® options like the Crescent Corner™ and new balustrading choices such as the customisable Identité Balustrade, patterned vertical bars and more. Finally, the Next Generation balcony is kinder – thanks to Sapphire's brand-new G60 anchor, the Clip-On® connection and a reduced carbon Cassette, the embodied carbon present in Sapphire's Next Generation range has been reduced significantly. LCA EPDs indicate the Next Generation suite is likely to be the most sustainable aluminium balcony on the market.

Sapphire's Head of ESG, Nick Haughton, spoke on the benefits of the Next Generation suite, elaborating on his excitement. "It's really exciting to be launching a new product that has EPDs demonstrating such a reduction in embodied carbon. At the core of this reduction is smart engineering and, for me, the fact that it's safer and gives more possibilities is a triple win for designers."

Ger Hayes, Managing Director of Sapphire installer John Sisk & Son's, spoke on the reveal of the Next Generation suite upon its reveal, saying: "Sapphire are probably one of the most innovative companies we work with" and that working with Sapphire's Next Generation suite on the NE02/03 development in Wembley has helped them to deliver "the most sustainable, low-embodied-carbon and



efficient residential development [they] have ever delivered". Mr Hayes went on to describe how proud he is of the relationship between Sisk & Sapphire and that the Next Generation balcony was "revolutionary" for the residential construction market.

Sapphire's Next Generation balcony features a significant 19% reduction in CO2 across stages A1-A5, making it the lowest-carbon and most sustainable balcony in Sapphire's 31-year history. In early stage project analysis the balcony has been found to reduce over 6,000 tonnes of weight from 50-storey towers. The new Clip-On anchors have been optimized by Sapphire's engineering team to allow the reduction of moment forces back to the building to as low as 4kNm.

0344 88 00 553 [www.balconies.global](http://www.balconies.global)

## BAL's solution for specifying 2cm porcelain paving

**B**AL – market leaders in full tiling solutions – have a trusted system for the installation of 2cm porcelain slabs direct onto concrete.

This method incorporates the use of BAL Level Out external leveller and BAL XL Floor One large format floor tile adhesive and is most suited when fixing porcelain, pavers, slabs or natural stone (suitable for external use) direct to an existing concrete base which may be rough or impact damaged.

This direct fixing method is essentially the same as internal tiling and can be used for patios, terraces or driveways.

The caveat being that expansion joints need to be incorporated into the subfloor, and falls will need to be added to ensure rainwater drains away fully. An effective DPM should also be incorporated into any direct-to-earth subfloors.

If needed, BAL Level Out can be applied onto concrete pads – as long as they are fully cured, free from efflorescence, laitance, dirt and other loose materials. It can be applied from 2mm to 30mm and is ready to receive tile adhesive after approximately 3 hours.



However, BAL XL Floor One tile adhesive can be used directly onto tamped concrete slabs or BAL Level Out if levelling is needed – with no priming needed.

XL Floor One has been designed specifically for use with large tiles and external 2cm porcelain as it can be built up to 25mm in bed depth. Fully pourable, with a thixotropic nature, BAL XL Floor One provides excellent coverage on the back of the tile or paver – without the need for back buttering on flat

surfaces, saving contractors time and money. BAL XL Floor One has a pot life of 1.5 hours, open time of 1 hour and sets overnight in 6-8 hours for fast-track project completion. This ensures that large slabs can be fixed and maneuvered into place easily, without fear the adhesive will skin over or go off in the bucket.

01782 591100  
www.bal-adhesives.com

## Rigidity results worthy of a trophy at Wembley Alto apartments

**P**art of a winning team at Wembley's new Alto development, Sapphire has once again won praise for its innovative balcony design and unrivalled 'end to end' support. Sapphire worked with Wates Construction to deliver 372 balconies for this stunning project for Quintain Estates. The Wembley Alto project, had an array of challenges from the long projection of the balconies to the internal fan extraction into the balconies. Other requirements included the need for top down installation to save time, GRC effect on balconies and balcony lighting. Each challenge is what makes Wembley Alto a dynamic residential haven with its four stunning towers.

Sapphire's innovative Glide-On™ connectors enabled a Rigid connection back to the building that far outperforms the British Standards L/180 structural deflection limits. With some of the balconies having a 1,725 mm projection, by BS EN Standards, this would be allowed to deflect by 9.6 mm at



the extent. Sapphire's Rigidity point load tests showed minimal deflections with an average of 1.25 mm recorded. Using Sapphire's Counter Balance Lifter (CBL) the client was able to install balconies as the scaffold was struck, saving time on the construction

schedule. Sapphire's innovative Cassette® design and simplicity enabled the integration of the extraction fans into the balconies, hiding the often-unpleasant fans from sight.

sales@sapphire.eu.com www.balconies.global



# building construction design



Building Construction Designs is an online turn page magazine offering the whole building team information on the latest products and services.

As well as the online magazine, Building Construction Design also offers a comprehensive press release archive website, monthly email newsletters and a digital marketing service, as well as a news blog.



**@BuildConstDes**

**REGISTER ONLINE FOR...**

Digital magazine  
Newsletter • Daily digests

**[www.buildingconstructiondesign.co.uk](http://www.buildingconstructiondesign.co.uk)**





Cover image: Renson UK  
See page 30 for details