## building construction design

**SUMMER 2025** 

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## Custom Fabricating Services – Site specific pump station requirements

Distribution Hub is home to Delta's in-house fabrication team. Our fabrication team not only fabricates the Delta 710, 910 and 800 Series chambers (used in structural waterproofing application) but also have capability and capacity to customize pumping systems to match any size and/or configuration to your specific site requirements.

All Delta pumping systems are fabricated from our dedicated Distribution Hub, a 3,500 ft<sup>2</sup> warehouse dedicated to pumping stations, packaged pump stations and basement drainage related products, from BBA Approved packaged pump stations, high water level alarms, control panels, battery backups to pipework and fittings, supporting the team's ability to meet the growing demand for quality basement drainage items.

Along with fabricated pumping systems, Delta also offer loose package systems for new or existing RC sumps are available if required. All Delta pumping systems are fabricated to included internal class E pipework, non-return valve(s) and guide rails, were applicable.

An extensive range of pumping stations can suit all types of application – ground, surface, or foul water, single or twin discharge.

Our experienced inspection team thoroughly assurance check all Delta pumping stations before they leave the Distribution Hub to maintain consistent, expected quality levels of Delta pumping systems.

All Delta pumping systems are usually available on a next working day delivery.





#### Specification Services

Delta Pumps is one of the largest suppliers of structural waterproofing application pumping systems. Our products are designed and fabricated in-house by our specialists to ensure high standards.

Our in-house team of specification managers are always happy to help to ensure your pumping systems suit your project. Simply complete a 'Delta Pump Specification Sheet' with your site requirements and let our teams do the rest. Delta's Pumping System Specifications are not only site specific but also include technical details and design strategy whilst confirming to British Standards and Regulations.

To aid specification simply complete the information fields in our online pump calculator tools – www.deltamembranes.com/ product-categories/pump-calculators – If pumping requirements are outside of standard stock range then click submit and our specification team will be on hand to assist.

#### **Retrofitting or new**

Delta's pumping systems are suitable for new and retrofitting projects. We recommend consultation with a Delta Pumps Registered Servicing Provider/manufacturer with knowledge of pumps prior to replacing equipment to ensure the replacement pumping system operates in accordance with site specifics.

#### Always happy to help

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

#### 01992 523 523

info@deltamembranes.com



### Why less is more in buckets made with Hardox<sup>®</sup> 500 Tuf







German manufacturer Kaiser showcases its new bucket design made entirely of Hardox® 500 Tuf. Pictured from left to right: Company owner Manfred Kaiser with his sons Lutz and Christian Kaiser.

Don't let looks deceive you. Building a bucket entirely with Hardox\* 500 Tuf wear plate results in enhanced wear performance, less need for maintenance and less fuel consumption due to reduced bucket weight. By going all-in with Hardox\* 500 Tuf you get a bucket that outperforms traditional buckets in many ways.

Using Hardox<sup>®</sup> 500 Tuf in buckets brings the following benefits to bucket design:

- The absence of wear strips inside of the bucket creates a clean shell structure, resulting in a lighter bucket and preventing material from sticking. By eliminating the need for welding wear strips inside the bucket, you don't compromise the material properties by causing heat-affected zones.
- Outside wear protection strips are not required, as the bucket shell is made of a 50 HBW harder material in an optimized thickness.
- A thicker side plate of Hardox<sup>®</sup> 500 Tuf stands up to wear and impact with less hassle. Wing shrouds are not needed, saving time on installation and replacement on site. These updates reduce digging forces, making excavation easier.
- It's not necessary to weld or bolt on extra heel shrouds. A 20 mm strip of Hardox<sup>®</sup> 500 Tuf provides reliable corner protection.

#### HOW IS THIS IMPROVED DESIGN POSSIBLE?

Dan Forsström is a senior wear specialist at SSAB's Knowledge Service Center who has been developing and testing this design in real life. "What makes Hardox<sup>®</sup> 500 Tuf special is that it's a wear plate with structural capabilities. Thanks to the steel's high hardness, strength and toughness we can ensure the entire bucket's wear resistance and long-term durability. A conventional design with outer wear strips on an AR 450 bucket is replaced with a harder and stronger shell in Hardox<sup>®</sup> 500 Tuf. The same goes for other parts of the bucket. The hardness of Hardox<sup>®</sup> 500 Tuf in combination with impact toughness similar to Hardox<sup>®</sup> 450 makes it an all-purpose solution for a new generation of excavator buckets," Forsström says.

As with all Hardox<sup>®</sup> wear plates, Hardox<sup>®</sup> 500 Tuf is through-thickness hardened; the through-thickness hardness of Hardox<sup>®</sup> 500 Tuf is also guaranteed through the entire thickness of the plate. This ensures reliable wear resistance during the buckets' entire lifespan.

#### HARDOX<sup>®</sup> 500 TUF SIMPLIFIES

MAINTENANCE AND REPAIRS ON SITE Replacing several wear steel grades in a bucket with only one – Hardox<sup>®</sup> 500 Tuf – ensures a predictable and long service life in the harshest operating environments. When the time comes to repair or rebuild the bucket to its original performance, you only need to keep one grade of wear plate in stock for maintenance and repairs.

#### BUCKET MANUFACTURER KAISER IN GERMANY WENT ALL-IN WITH HARDOX® 500 TUF

Maschinenbau Manfred Kaiser GmbH is a manufacturer of construction machinery and other special equipment for manufacturers and dealers worldwide. "The advantages for bucket end-users are obvious. We have hardly noticed any difference in the workshop properties of Hardox<sup>®</sup> 500 Tuf compared to Hardox<sup>®</sup> 450, which is very important to us," says Manfred Kaiser and adds, "We've been able to reduce the dead weight of the excavator bucket by around 10%, compared to the previous model through design changes. The thinner wear plates need less heat input during welding and thus help to ensure the steel's high wear resistance remains. The fact that only Hardox<sup>®</sup> 500 Tuf plate is used in this model also makes it easier to rebuild the excavator bucket, whenever necessary."

#### ESTIMATED PRODUCTIVITY AND ENVIRONMENTAL IMPROVEMENTS The new bucket design with Hardox<sup>®</sup> 500 Tuf

The new bucket design with Hardox\* 500 Tuf outperforms a conventional bucket in the same class:\*

- 14% average service life increase
- 30% service life increase for the cutting edge
  - 10% reduced bucket weight

\*The numbers are based on general use cases. Results may differ for individual applications.

For further information, please contact: Ursula Egenhofer, Brand Manager Hardox<sup>®</sup> wear plate, SSAB Special Steels Ursula.egenhofer@ssab.com, phone: +1 412 680 0080

ssabuk@ssab.com www.ssab.com/en

## Raven Housing Trust collaborates with Aico to enhance fire safety in sheltered and temporary accommodation

aven Housing Trust is partnering with Aico, the European market leader in home life safety, to upgrade fire protection systems in 432 dwellings across its sheltered and temporary accommodation. This major investment underscores Raven Housing Trust's commitment to the safety and well-being of its residents.

Recognising the critical importance of robust fire safety measures in sheltered and temporary accommodation, Raven Housing Trust is committed to installing systems to the highest specification, compliant with BS 5839-6 standards.

#### ENHANCING PROTECTION ACROSS HOUSING

This three-year programme will see AJS Ltd, an electrical contractor outsourced by Raven Housing Trust, install Aico's fire and carbon monoxide (CO) alarms. This installation will take place across 432 individual temporary dwellings, ensuring that residents receive the earliest possible warning of a fire or CO event. Separately, Raven Housing Trust's Direct Labour Organisation will be undertaking upgrades to sheltered accommodation sites and general needs properties to LD1 and LD2 specifications, respectively, during change of tenancy or rewiring works. The sheltered accommodation upgrade will also integrate the existing Warden Call systems, providing enhanced safety and rapid response capabilities within these facilities.

Aico's Relationship Manager for the South East, Paul Barrett, will work closely with Christian Hirschfield from Raven Housing Trust, alongside other teams involved in this project, providing product expertise and guidance.





"We have chosen Aico as our manufacturer for this project due to their reputation for highquality products and innovative technology," stated Christian Hirschfield, Electrical Manager at Raven Housing Trust. "Aico's commitment to safety and reliability makes them an ideal partner for our homes, ensuring that we provide the best possible protection for our residents."

#### AICO'S 3000 SERIES INSTALLATION

The upgrade will involve the installation of specific, high-performance Aico alarms tailored to different areas within the temporary dwellings:

- The Ei3028 Multi-Sensor Heat and CO Alarm will be installed in kitchens where boilers are present.
- The Ei3024 Multi-Sensor Fire Alarm will be used in kitchens without boilers.
- The Ei3016 Optical Smoke Alarm will provide coverage in circulation areas, living areas, and bedrooms.

All alarms will be interconnected using the Ei3000MRF module, which allows for wireless interconnection via radio frequency. This means that if one alarm is activated, all alarms will sound, providing full-circle protection and allowing for an immediate response. At each of the sheltered accommodation sites, Aico's Ei414 RadioLINK+ Fire/CO Alarm Interface will be implemented to seamlessly connect the new fire alarm system with the existing Warden Call setup, enabling immediate alerts and assistance for residents in the event of a fire or CO emergency.

#### TRAINING AND ONGOING SUPPORT

Paul will further support the team by delivering Aico's award-winning Expert Installer training course. This CPD-accredited course will equip Raven Housing Trust with the essential knowledge and skills needed to correctly and efficiently site and install Aico's safety systems. Once complete, the team will extend their knowledge by completing Aico's Domestic Fire and CO Alarm Systems City & Guilds assured training held at their headquarters in Oswestry.

Paul Barrett commented on the project: "Christian and his team are taking the lead in installing Aico products to comply with BS 5839-6 using our Grade D1 Ei3000 Series alarms and LD1 specification. It has been a pleasure getting to know Raven Housing Trust over the years, and I am sure our trusted partnership will continue long into the future."

Learn more about Aico's innovative alarms by visiting the website.

01691 664100 www.aico.co.uk



#### **NEWS FEATURE**

## Large format tiles offer aesthetic freedom

Nick Bratt, national technical sales manager for tile adhesive manufacturer Palace Chemicals, outlines some of the issues around specifying the new generation of large format tiles.

arge format porcelain panels are now increasingly seen in both commercial and residential installations. With modern digital printing techniques, they offer exciting new design opportunities for architects. They feature a no-nonsense, sleek and unfussy aesthetic, due to the reduced number of grout lines, allowing a clean and uninterrupted finish. When used in hygienesensitive environments, they also offer easier cleaning, along with health and wellbeing benefits. According to British Standard BS 5385 Part 1:2018, a ceramic panel is a tile with a surface area >1 m<sup>2</sup>, with any tile edge >1,200 mm, whereas a large format ceramic tile is defined as a ceramic tile with a surface area greater than 3,600 cm<sup>2</sup>, but no tile edge greater than 1,200 mm.

There are specific requirements relating to the installation of large format tiles and panels, due to their size and weight. What happens 'behind the tile' is a very important part of the specification process, so designers need to look beyond the aesthetic aspects. The main requirements are included in the British Standard BS 5385 Part 3:2024. This states: "Thin ceramic panels should be handled with specially designed equipment for supporting them in order to prevent possible fracture during and after removal from the manufacturer's original packaging, as well as for the actual installation of the panels." It will be noted that handling issues can be particularly challenging in refurbishment projects or where it is required to negotiate stairways.

The British Standard also states: "Depending upon the size of the panel, sufficient bedding adhesive should be spread to install one panel at a time to avoid possible 'skinning' of the adhesive which could have a detrimental effect upon the performance of the adhesive bond."

In accordance with BS 5385 Part 1:2018: "Where tiles greater than 0.1 m<sup>2</sup> face area are required to be fixed to walls above 3 m above floor level they should be secured by mechanical fixings."

For tiles that are being fitted at heights below 3 m, the choice of adhesive is important to ensure that a solid bed is achieved. This will require applying adhesive to the substrate and also back-buttering the tiles. Particular attention should be paid to the application of adhesive to the backs of thin ceramic tiles and panels so that the edges and corners are properly covered with adhesive. We would also advise that the type of adhesive should be specified at the design stage. A lightweight thixotropic adhesive should be considered. It is also important that the substrate should comprise a bespoke tile backerboard to support the additional weight.

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

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# Remain vigilant when assessing products that resemble ScreedBoard<sup>®</sup> in name or description

Cellecta is urging architects, developers, and contractors to remain vigilant when assessing products that resemble ScreedBoard<sup>®</sup> in name or description.

ellecta Ltd, the UK manufacturer of the trademark-registered ScreedBoard®, is urging construction professionals to exercise caution as imitation products and misleading terminology continue to appear across the market.

ScreedBoard<sup>®</sup> 28 is one of the UK industry's leading high-density dry gypsum acoustic floor panel. Renowned for its outstanding performance, unique interlocking edge design, and third-party certifications, the panel helps a separating floor exceed Part E Building Regulations for acoustic performance typically by over 5dB. For over 18 years, it has been widely specified across residential and commercial developments for its proven compliance and consistent results.

"We are increasingly seeing companies use similar names, such as 'screed board' or 'screed boarding', in ways that can mislead specifiers and compromise the integrity of compliant builds," said Ben Banks, Technical Director at Cellecta.

He added: "We are committed to protecting our brand and supporting specifiers in making informed, confident decisions that are backed by independent and comprehensive levels of testing. Where necessary, we will pursue legal remedies to address any misuse of our trademarks. We've seen developers forced to rip up and replace floors after post-completion testing exposed substandard acoustic performance from inferior alternatives. Any initial cost savings are quickly erased when remediation is required."

Cellecta is also warning that some competitors are misrepresenting their





products as Robust Detail (RD) compliant, despite lacking proper certification. Whilst these companies reference general floor types such as E-FC-1, E-FC-2, or E-FS-1. All of which require a 17dB impact improvement from an acoustic treatment, to show compliance with RD. It is important that this can be backed up by independent test data. It should also be made clear that these references do not equate to systemlevel approval, especially when proprietary components such as underfloor heating layers are introduced or the acoustic board is used in applications such as timber frame or steel joisted floors. Proprietary Robust Details must utilise the components shown in the RD, and these must not be substituted.

Literature should be clear on what application and exactly which Robust Detail their products are suitable for, remember unless the entire system is tested in accordance with the handbook, it is not suitable.



As part of its ongoing commitment to brand integrity, Cellecta enforces a strict policy of monitoring and defending its intellectual property. Legal action will be taken against any organisation using misleading or derivative variations of its trademarks that risk causing confusion or diluting the ScreedBoard<sup>®</sup> brand's reputation.

More than just a product, ScreedBoard<sup>®</sup> is a legally protected brand and a proprietary Robust Detail solution. Backed by UKASaccredited test data and supported with a minimum 10-year warranty, it delivers certified acoustic performance with complete peace of mind both with and without underfloor heating.

Cellecta encourages all specifiers to seek clarification where any doubt exists regarding a product's authenticity, certification, or compliance. Asking the right questions up front can prevent costly issues later.

"We stand behind our product, our trademark, and our customers," added Stephen Cain, Communications Manager at Cellecta. "We'll continue working to ensure the industry has access to clearly certified, high-performance acoustic flooring solutions—without compromise."

ScreedBoard<sup>®</sup> is a registered trademark of Cellecta Ltd (UK Trademark No. UK00002454165).

01634 296 677 www.cellecta.co.uk

### CCF launches its groundbreaking new carbon report tool

eading interior building products distributor CCF is taking carbon calculations to the next level with the launch of CCF Connect – a bespoke new reporting tool that provides a comprehensive and shareable assessment of the carbon impact of the building products it supplies.

The launch of CCF Connect builds on the earlier development of the company's deliveryfocused carbon reporting tool which began trials in 2023. Following feedback and further investment from CCF, the offering has evolved to allow CCF's customers to track, collate, and share more accurate data relating to carbon emissions generated at the manufacturing and delivery stages.

The new tool has been developed with both main contractor and subcontractor customers in mind and has been specifically designed to help connect the supply chain by consolidating available carbon data. By factoring in key product details such as dimensions, weight, thickness, and manufacturer Environmental Product Declarations (EPDs), CCF Connect can provide a more precise and holistic view of a product's carbon footprint. It also offers 'real-time' insights to allow customers to track the exact products delivered to site, supporting compliance and reducing waste from surplus orders.

Construction Carbon, a leading independent carbon performance verification company, has verified CCF Connect in line with the requirements of ISO14064-3. This international



standard provides guidelines for quantifying, monitoring, reporting, and verifying greenhouse gas emissions statements and specifically focuses on the validation and verification of carbon calculations in terms of their accuracy and reliability.

The licensed Carbon Connect system allows CCF's supply chain partners to work together by simplifying the reporting process and facilitating collaboration in sharing valuable carbon data. For main contractors, this means subcontractor partners can easily share data to assist with SCOPE 3 and other bespoke project reports. As well as supporting their own customers in this way, subcontractors can also benefit from having access to a userfriendly tool that allows them to take direct control of their carbon reporting needs and reduce the cost and reliance of using thirdparty consultants.

Phil Monkman, head of sales & sustainability solutions at CCF, highlighted the transformative potential of CCF Connect, stating: "From supporting subcontractors in tracking their carbon footprints to assisting main contractors with Scope 3 reporting, our industry thrives when we work together. CCF Connect is a game-changer in making carbon reporting simpler, more accurate, and more accessible. We occupy a central position within the supply chain and we recognise both the opportunity and responsibility it gives us. We don't believe that any other UK distributor can currently offer this type of carbon reporting tool and we are excited to be able to support our customers in this way."

Gilbert Lennox-King, co-founder and CEO of Construction Carbon, added: "CCF Connect is a really smart product. With sustainability having an ever-increasing emphasis during the procurement process, it allows main contractors and particularly specialist contractors to secure more opportunities by providing a straightforward means of reporting their carbon data. We are looking forward to continuing to work with CCF as the new tool gains traction and is used on more live projects across the UK. The launch of CCF Connect marks an important step forward in the distributor and merchant sector and we are excited to see the difference it makes to the wider construction industry."

technicalteam@ccfltd.co.uk www.ccfltd.co.uk/content/carbon-reporting

## Grade II listed London school achieves carbon reduction through heat pump installation

The listed Victorian Gothic Revival 'Riverside School' is situated along the Thames, has successfully implemented a comprehensive decarbonisation project, featuring the Mitsubishi Electric 2\*40kW CAHV and a 40kW QAHV heat pump units connected to K-con thermal and potable water vessels. This school has recently been fully refurbished and extended; and underscores the feasibility of integrating sustainable heating solutions within historic buildings.

HOB Mechanical Services the mechanical services contract, necessitated the design and installation of a pre-specified Mitsubishi Electric heat pump system. The project presented two primary challenges: space constraints within the designated plant room and to mitigate noise in a densely populated residential area.

#### Innovative Engineering Solutions:

In collaboration with Kooltech, HOB Mechanical Services engineered a bespoke



solution to address these challenges. Kooltech's expertise facilitated the integration of their K-con product range, specifically tailored thermal storage vessels. Two custom-fabricated, stainless steel cladded vessels were externally situated freeing up valuable internal plant room space that houses the installation of two 255L stainless domestic hot water cylinders connected to the QAHV heat pump units.

To mitigate noise pollution, acoustic enclosures were incorporated into the design, achieving an additional 8dBA reduction from the CAHV air source heat pump units utilised for space heating. This, coupled with the CAHV units' integrated noise reduction capabilities, ensured minimal disruption to the surrounding community.

The project culminated in the successful installation of a high-efficiency heating and hot water decarbonisation system, adhering to stringent noise reduction parameters. This project shows how the implementation of sustainable heating solutions in heritage buildings, working together with engineers and suppliers achieves great results.

0345 034 4179 www.kooltech.co.uk

## Unique facade for property developer

mpress with surprising choices and stylish combinations? Arteco does the trick. The property developer showed off its skills in the French town of Saint-Nazaire, flanked by the surging Loire. The impressive facade is dominated by the Linius facade cladding from Renson. The invisible screens ensure pleasant indoor temperatures.

The Arteco house in Saint-Nazaire, in Loire-Atlantique, is a conceptual building. "This local branch is about 200 square metres," explains branch manager Mickaël



Euzenat. "For this project, we relied on suppliers of high-quality and utilised special products, such as external insulation, innovative heating systems, and Renson's aluminium facade cladding."

### High-end concept with refined materials

The 'out the box' building combines a domestic exterior with an office interior. Aesthetics and practical added value come together in a selection of refined materials. "The principle of a high-end concept, but in a homey atmosphere," emphasises Mickaël. "Customers can see the products here in a different way. And our ideal geographical location called for a real eyecatcher."

Instead of traditional wooden or aluminium cassettes as facade cladding, the architects opted for blades, for external insulation and to really draw attention. The horizontal aluminium Linius blades – resistant to the salty sea air – create unique and fascinating shadow effects. The white facade cladding on the first floor is a nice contrast to the Linius blades on the ground floor.



#### Lessons from the past

Renson was also the point of contact for efficient and windproof (up to 130 km/h) sun protection, a practical choice with no impact on the facade appearance, despite the thick layer of insulation. In opting for blinds, Arteco drew lessons from the past. A branch in Lorient, built in 2007 without sun protection, quickly ran into an overheating problem and needed active cooling. The Fixscreens prevent the same scenario in Saint-Nazaire. All whilst maintaining the sleek architecture.

www.renson.net

## BAL celebrates DOUBLE success at TTA Awards 2025!

**B** AL are celebrating after winning Best Innovation at this year's Tile Association (TTA) Awards and also scooping the Best Environmental Initiative as part of ARDEX Group UK. The TTA Awards 2025 took place at The Hilton Metropole on Friday 16th May and were themed "Celebrating Excellence" – recognising the best of the best in the tiling industry.

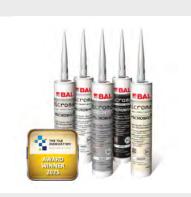
"Best Innovation 2025" was won by BAL Micromax Grout-Effect Sealant, which was recognised by judges and a public vote as the most innovative tiling product (or service) of the last year.

Launched in July last year, BAL Micromax Grout-Effect Sealant is a unique matt-effect sealant that matches BAL Micromax3 ECO Grout and BAL Absolute Grout in colour AND texture. It provides fixers with a sealant that can be used for seamless perimeter and soft movement joints, internal and external corners, without standing out from the grout joints. It has proved a great success, with BAL Micromax Grout-Effect Sealant completely replacing the old "shiny" traditional technologies of BAL sealants in distribution partners.

The first of its kind for the UK tiling sector the product is a solution for seamless joints with thousands of users across the UK choosing the product as the finishing sealant of choice, and the one that clients can rely on for perfect results that last.

ARDEX Group UK also took home "Best Environmental Initiative" for the Group's Building Tomorrow initiative – with with a commitment to being fully Carbon Neutral by 2045 and being Carbon Neutral for Scope 1 & 2 emissions by 2030.

The UK Group, consisting of ARDEX UK and Building Adhesives Ltd, has crafted and part-implemented a Sustainability Roadmap to ensure that the UK business achieves these goals through a wide range of initiatives including sustainable sourcing



of materials, recycling, waste reduction, extended product life-cycles, energy efficiency and sustainable energy sourcing and sustainable work-place practices.

Further success came later in the evening as tiling contractors Elite Tiling Ltd won Best Commercial Large (over  $250 \text{ m}^2$ ) – Hospitality and Leisure) for Cozenton Sports Centre in Rainham, Kent which used a full ARDEX pool solution.

All categories were decided through a combination of a public vote and an expert judging panel.

01782 591100 www.bal-adhesives.com

## Modern, sustainable and engineered to last

-railing launches EPD Certificates for glass, stainless steel and aluminium railing systems.

Q-railing has recently obtained Environmental Product Declarations (EPDs) for its glass balustrades with aluminium base channels, stainless steel post railing systems, and aluminium glass infill and vertical bar infill railing systems. These third-party verified EPDs provide transparent data on the environmental impact of these products throughout their life cycle, aiding architects, designers, and contractors in making sustainable choices for both residential and commercial projects. The certifications comply with EN 15804+A2 and have been verified in accordance with ISO 14025.

"Introducing Environmental Product Declarations (EPDs) for Q-railing's five main systems empowers customers with transparent, reliable data on the environmental impact of our products, allowing them to make informed, sustainable choices. By providing this critical information, we support customers in meeting green building standards, enhancing



their own sustainability initiatives, and contributing positively to the environment." Darryl Holloway, Architectural Sales Manager at Q-railing.

"These EPD documents provide information on energy and resource consumption, waste production, and the environmental impact of manufacturing. Through Life Cycle Analysis (LCA), we have mapped out our key products, enabling us to contribute to a more sustainable construction industry." Robin Zoutewelle, Product Manager at Q-railing.

EPDs are essential tools in the construction industry, offering detailed insights into a product's environmental performance over its lifetime. They support carbon emission reduction efforts by allowing comparisons between materials and products to select the most sustainable options. Architects, engineers, and designers can utilise EPDs to make informed choices.

Q-railing's commitment to sustainability is reflected in these certifications, providing clients with confidence in the environmental credentials of their railing systems. By investing in EPDs, Q-railing aligns with the industry's move towards net-zero construction and supports clients in achieving their sustainability goals.

0800 781 42 45 q-railing.com/en-gb/service/downloads/epd

## Passivhaus-certified primary school featuring Wraptite<sup>®</sup> nominated for multiple awards

early 600 pupils, including some 80 nursery-age children, are benefitting from learning at Scotland's first primary school certified to the Passivhaus standard. In recognition of this achievement, Riverside Primary in Perth and Kinross has been nominated for multiple awards.

The project won the 'Innovation in Delivering a Sustainable Learning Place' category at the Learning Places Scotland Awards 2023, and achieved a Silver Award in the Scottish Design Awards 2024. It was also a finalist in both the Public Sector category of the 2024 RICS awards, and the Project Under £20m category of the CN Awards 2024.

A key component in the building fabric specification was the A. Proctor Group's Wraptite® airtightness membrane. Installed to the external side of the structural frame, the fully self-adhered membrane contributed to an overall airtightness test result of 0.53 air changes per hour (ach) at 50 Pascals. The Passivhaus standard requires 0.6 ach or lower.



Meeting the Passivhaus standard was key to unlocking funding from the Scottish Futures Trust Learning Estates Investment Programme. By achieving the target, the school can be expected to use 50% less energy than a similar school that doesn't meet the standard. Postoccupancy monitoring is taking place to measure in-use performance against expectation.

Using Wraptite moves the airtightness barrier to the exterior face of the wall,

avoiding complex detailing around services and other typical penetrations at the internal face. As it is also vapour permeable, Wraptite helps to achieve high standards of airtightness without increasing condensation risk in the structure.

A benefit of choosing Wraptite was that it supported a local supplier. The membrane was supplied by A. Proctor Group from nearby Blairgowrie, contributing to the local economy. "Architype originally specified a loose-applied, taped membrane solution," explained Kevin Dickson, "but as a local contractor, we prioritise using a local supply chain to deliver benefits in the areas where we work, so chose A.Proctor Group and its Wraptite product. As a fully-adhered solution, it removed the need for tape, making it less labour intensive, quicker to install and more economical."

#### 01250 872 261

www.proctorgroup.com/products/wraptite

## Altecnic SATK32107 HIU passes more 'best practice' criteria than any other unit in UK BESA testing

A ltecnic Ltd is proud to announce that its SATK32107 Heat Interface Unit (HIU) has delivered industry-leading results in the latest BESA UK HIU Test Regime, passing more individual 'best practice' criteria than any other HIU currently tested in the UK.

#### **BEST PRACTICE ACHIEVEMENTS**

The BESA test is recognised as the benchmark for assessing HIU performance in the UK, independently evaluating efficiency, reliability, and network suitability. In its latest format the test clearly highlights which modules have been completed and how each unit performs against both baseline and best practice criteria. Altecnic's SATK32107 achieved passed all four indirect modules and recorded 8 best practice outcomes, the highest to date among all tested HIUs in the UK market.

These outcomes demonstrate the unit's performance under real-world conditions and its alignment with the CIBSE CP1 (2020) and HNTAS standards. The results confirm that the SATK32107 not only meets today's expectations but is futureproofed for evolving UK performance benchmarks.

#### PROVEN PERFORMANCE ACROSS TEST MODULES

The SATK32107 excelled in both high and low temperature applications.



- Modules 1 & 7 (High Temperature): Demonstrated excellent space heating and DHW performance with VWARTs as low as 27°C and rapid hot water response times.
- Modules 2 & 8 (Low Temperature): Proven compatibility with low-temperature systems and heat pump-ready networks, achieving VWARTs down to 30°C, placing it among the most efficient HIUs on the market.

This outstanding performance gives specifiers, developers, and contractors clear, independently verified data to support confident system design, product selection, and long-term planning.

#### DRIVING DECARBONISATION

As the UK heat network landscape transitions toward low-carbon energy and electrified heating, the SATK32107 stands out as a futureready solution. Its proven ability to operate efficiently at low temperatures makes it ideal for integration with heat pumps and renewable heat sources, helping to meet both regulatory standards and climate goals.

By reducing return temperatures and optimising energy use, the SATK32107 plays a vital role in lowering heat loss, enhancing network efficiency, and supporting the UK's wider net zero decarbonisation strategy. For developers and local authorities, this means a reliable, scalable, and sustainable HIU that's ready for the future of heat.

Gary Perry, managing director at Altecnic, commented: "This result reflects our long-term investment in quality, standards, and transparent benchmarking – principles that are embedded in everything we do as part of the Caleffi Group. Our parent company brings decades of Italian engineering expertise and a focus on innovation, which has been instrumental in the development of this high-performance HIU. As the industry shifts toward lower temperature and heat pump-ready networks, this is the kind of independently verified performance the market needs to provide reliable, efficient and future-proofed solutions for UK heat networks."

#### sales@altecnic.co.uk

www.altecnic.co.uk/satk32-indirect-withnetwork-protection-and-integral-room-controller

### Freefoam Building Products retains ECOVARDIS Silver Medal

reefoam is proud to announce that we have successfully retained our Ecovadis Silver Medal for 2025, placing us in the 94th percentile of all companies assessed globally. This recognition reaffirms our unwavering commitment to sustainability and responsible business practices.

Ecovadis is a globally recognised sustainability ratings platform that evaluates companies on their environmental, ethical, labour and human rights practices, as well as sustainable procurement. Freefoam's achievement places us among the top 6% of all companies assessed, reflecting significant progress since our first evaluation in 2023, when

> SILVER | Top 15% **ECOVADIS** Sustainability Rating APR 2025

we ranked in the 78th percentile.

"We're thrilled with our performance this year," said Kevin Cronin chief operating officer. "Achieving a 75/100 overall score – a six-point improvement from last year – and increasing our scores across all four assessment themes is a testament to our team's hard work and dedication to continuous improvement." Highlights of Freefoam's 2025 Ecovadis results include:

- Increased scores in Environment, Ethics, Labour & Human Rights, and Sustainable Procurement
- A 6-point overall score increase, reaching 75/100
- Above-average performance in both general manufacturing and plastic
- product manufacturing sectors

With the gold medal threshold just one percentile away, Freefoam remains committed to further enhancing our sustainability efforts and advancing toward even higher standards in the years ahead.

"We would like to thank everyone across the organisation for their contributions to this achievement," added Kevin Cronin. "Sustainability is a collective effort, and this recognition is something we can all be proud of."

0800 00 29903 www.freefoam.com



## What does NHBC accepts mean for Modern Construction in the UK?

n a monumental step for Modern Methods of Construction (MMC), Nudura UK has become the first Insulated Concrete Form (ICF) system to achieve the prestigious NHBC Accepts accreditation. This recognition from the National House Building Council (NHBC) marks a significant milestone for both Nudura and the wider construction industry, as it paves the way for greater adoption of ICF in mainstream building projects across the UK.

But, what exactly does NHBC accepts mean for modern construction, and why is this such a critical development for builders, architects, and developers?

#### WHAT IS NHBC ACCEPTS?

NHBC Accepts is an accreditations scheme designed to fast track the adoption of innovation construction products and systems by ensuring they meet NHBC's rigorous standards for safety, performance, and compliance. The NHBC is the UK's leading provider of warranty and insurance for new homes, which means that achieving this accreditation guarantees that a product is recognised for quality, compliance, and suitability for use in homebuilding projects covered by NHBC warranties.

In other words, if a product or system holds NHBC Accepts accreditation, developers, architects and contractors can be confident



that it is fully approved for use in new builds under the NHBC stringent guidelines.

#### NUDURA: THE FIRST ICF TO BE NHBC ACCEPTED IN THE UK

As the first ICF system in the UK to receive NHBC Accepts accreditation, Nudura has broken new ground. ICF technology, which uses hollow, interlocking forms filled with concrete to create super structures, has long been recognised for its strength, energy efficiency, and sustainability. Now, with the added validation from NHBC, Nudura ICF is poised to transform the landscape of UK construction. This achievement means that Nudura ICF can be used in NHBC-backed projects with complete confidence. For architects and contractors, this significantly simplifies the approval process, reduces red tape, and accelerates the path to construction.

Achieving NHBC Accepts certification is more than just a seal of approval for Nudura – it represents a seismic shift in how the UK construction industry can approach Modern Methods of Construction (MMC). With the UK government's growing emphasis on sustainable building and innovative construction techniques, Nudura is not only elevating the status of ICF systems but also contributing to the wider transformation of the construction industry.

The benefits of NHBC Accepts are clear: faster project approval, enhanced sustainability, improved build quality, and greater confidence in compliance. But most importantly, this accreditation reinforces the fact that the future of construction lies in innovative, high performance materials like Nudura ICF. Ready to start building the future? Get in touch with Nudura today and discover how our NHBC-approved ICF systems can elevate your next project.

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# The benefits of hardened wood flooring – how it's made is the key

In a wood flooring market which is not known for innovation, the pioneering approach of Välinge Innovation, sister company of Bjelin, stands outs strongly. Darko Pervan, founder of Välinge, developed the world's first mechanical locking system which enabled wood and laminate flooring to be locked together for a secure and durable fixing. Indeed, the company has been primarily a technology and innovation company, rather than a manufacturer, for the following 30 years.

Patented Woodura® technology from Välinge is critical to the manufacture of hardened wood flooring, known as Woodura Planks. The unique manufacturing process involves fusing a thin sheet of real wood veneer with a Compositek<sup>™</sup> wood fibre core through a powder mix layer. The powder mix completely fills the natural gaps within the wood, while also enhancing the wood's appearance. It eliminates the need for a woodfiller and creates a significantly stronger surface with a hardness three times greater than a traditional solid wood floor - more solid than a plank! Compared to traditional wood flooring, the durability of the wood wear layer is massively increased.

In addition to Woodura, to give outstanding durability and sustainability, the Bjelin range of hardened wood flooring includes 5G Dry<sup>®</sup> technology, also developed by Välinge. This is a water-resistant fold-down system unique among hard wood flooring products because



of its ease of installation. These are the next generation of highly innovative hardened wood floors.

In fact, the Välinge technology for locking floorboards mechanically has become the world standard. The company has pioneered a technological revolution for the flooring industry and led the transition from traditional glued tongue-and-grooved flooring to today's modern adhesive-free click technology.

Bjelin has production facilities at Viken in Sweden and also several factories in Croatia, including the most modern Ogulin 2 factory near to the FSC®-certified Spaĕva forest, from where a lot of its timber is sourced. This facility will be the world's largest wood flooring factory. The Swedish and Croatian factories together will have a production of millions of square metres annually when completed in 2027.

Bjelin hardened wood floors are made with oak, ash and walnut from sustainable sources of timber with FSC certification. Woodura technology makes the manufacturing process much more efficient and environmentally friendly in terms of timber usage than traditional processes. Only a tenth of the material normally used in hardwood flooring is required for the timber used in Woodura planks.

The technique used by other companies to produce the surface layers for wooden floors is done by sawing about 4.5 mm thick layers which are then sanded to a top lamella. This technology is used by many manufacturers to produce parquet floors, and the process creates a lot of waste, mainly in the form of sawdust.

Bjelin on the other hand uses a knife cutting process instead of sawing when manufacturing hardened wood floors. The surface layers end up being approximately 0.6 mm thick, which is how it can manufacture ten times more flooring from a single log than traditional parquet flooring.

In this way hardened wood flooring meets the multiple objectives set by Bjelin for the technology – first and foremost to be highly sustainable and economical with resources, something which is increasingly demanded by clients and specifiers. Secondly it is highly durable, hard-wearing and longlasting, while finally allowing for the creation



of a stunning aesthetic, where every plank is different and the beauty of the natural woodgrain is maximised.

Bjelin hardened wood flooring meets all the aspirations of specifiers, who want to use environmentally friendly wood flooring products. They can choose a wood-based click floor that can be reused, is locally produced and where the raw wood comes from FSC-certified forests. The hardwood surface layer of the floor is thin at 0.6 mm and reinforced, so that large amounts of flooring can be manufactured from one log, but it is also sure to be highly durable.

In order to test the durability of its new floors, the company operates the world's largest testing facility for wooden floors, containing advanced laboratories with large climate chambers and instruments to test floors for impact resistance, durability and noise levels.

Bjelin can be sure that its floors are durable and longlasting, which is a key factor in eliminating disposability and enhancing sustainability.

It can be seen that, by focusing on innovation, it is possible to develop products in the hardened wood flooring sector, which meet all the aesthetic requirements of a timber floor, as well as being much more durable and also meeting sustainability goals.

#### richard.banham@valinge.co.uk 07500 758364 www.bjelin.co.uk

## Woodburners get the green light



UK government approves continued use of modern, efficient wood burning stoves and fires in new build homes.

**D**<sup>RU</sup> is the Netherlands-based manufacturer of Dik Geurts woodburning stoves and fires and the UK distributor of Spartherm wood stoves and fires.

The company is pleased to share some reassuring news for anyone considering a wood burning stove or fire for their new build home.

The UK Government has confirmed that, under the proposed Future Homes Standard, people in new build properties can continue to install and use modern, efficient wood burning appliances.

This important clarification, prompted by strong industry representation led by the Stove Industry Association (SIA), means that wood burning stoves will remain a part of the UK's future housing landscape as an important source of low-carbon, sustainable heating.

Modern wood stoves are not only highly efficient and low in emissions, but they also provide flexible, reliable heat, even during power outages.

With an Ecodesign compliant stove, using properly prepared wood and responsible burning practices, homeowners can enjoy all the benefits of real wood fires. They will also have complete peace of mind that their wood stove or fire can be used for the foreseeable future.

Commenting on the ruling, DRU UK general manager Niall Deiraniya said: "We are delighted that the government has given the green light to woodburning in new homes. This sensible decision is good for the wood stove industry and good for consumers and will greatly enhance the choice of green energy options available to new home buyers."

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## Doors for demanding locations – The evidence is all in Black and White

Interior timber doors required to fulfil the myriads of requirements presented by demanding locations, can often fall short of expectations. However, when it comes to those supplied by Swindon based Vicaima, a lifetime of performance, consistent quality and innovative design solutions, ensures trust and confidence are never misplaced.

For sectors spanning specialist living to medical, education and beyond, Vicaima's ability to blend the right doors for demanding locations with design aspirations is perhaps epitomized by two examples from its extensive product portfolio: Lacdor® Satin White, a long-standing symbol of sustainable and practical white doors has been a firm favorite with specifiers for many years. Prized for its ultra-smooth and durable factory applied lacquered paint finish, Lacdor® incorporates solvent free and low energy technologies to safeguard sustainable product supply today and in the future. Available in a choice of Satin White RAL 9003 and Satin Pure White RAL 9010, these doors are supplied with a matching edge banding as standard. What's more, both glazed and decoratively grooved variations are possible to cater for specific design scope. In addition, acting as a counterbalance within the monochrome look, sits the new Dekordor® HD Magnet Black. Part of the ever-growing laminates offering from Vicaima, comprising an array of trend-driven solid colour options and wood effects, with a robust surface finish



presenting high resistance and durability for challenging spaces.

Whichever end of the spectrum is selected, these design options are available to meet stringent regulatory and performance requirements. Whether the need is for Sound Reduction, where acoustic parameters encompass up to 45dB; Security considerations, incorporating both Secure by Design or PAS 24 certification to ensure a safe environment or indeed Fire Performance with EN 1634 / BS476 tested and third-party accredited fire doors and door sets in FD30, FD60 and FD90 facilitate complete peace of mind, whatever the project.

Another important factor for demanding locations is size. Dimensional flexibility can often present frustrating limitations when striving to meet project objectives, leaving specifiers feeling underwhelmed by the constraints imposed by many door manufacturers and distributors. Conversely, Vicaima can fulfil the full spectrum of metric and imperial sizes, together with over-height or enhanced mobility widths as position requires.

For more information about Vicaima doors for demanding locations, take a journey of discovery with the new Interactive Interior Door Selector for 2025. A constantly evolving resource, filled with the latest design inspiration, technical assistance and budgetary guidance. Helping the market stay in touch, with the very best interior doors and door sets from Vicaima, for all types of applications.

01793 532 333 www.vicaima.com



## Gilberts helps "The Best Spa Hotel in UK" expansion

he Crow Wood Hotel & Spa Resort – winner of the Best UK Hotel spa award 2024 – is taking its visitor experiences to the next level, with contribution from Gilberts Blackpool.

The globally renowned venue has invested  $\pounds$ 16m in a new thermal experience – the Woodland Spa – set within the facility's 100-acre grounds in the heart of Lancashire. The three-storey building includes a gymnasium, bar, restaurant, treatment rooms, relaxation rooms, indoor swimming pool plus jacuzzi, salt steam room and serenity pool.

To confidently create the perfect atmosphere in each area, addressing the specific ambient conditions required, building services consultants Petit Singleton Associates utilised the expertise of Gilberts Blackpool to supply the air movement supply and extract.

For ventilation within the internal spaces, Gilberts worked closely with PSA to develop a scheme that predominantly uses a combination of Gilberts' contemporarystyled louvre faced ceiling diffusers (DGA, four-way blow configuration), linear slot diffusers (GSLS) and high-capacity slot diffusers (HSLS), with separate units for supply and extract. To compliment the clean, modern decor, all were finished in either pure white with a 20% gloss finish or matt traffic white. And to ensure the air handling equipment with heat recovery connected to air source heat pumps all functions at optimum efficiency, constantly, Gilberts' plant ventilation louvres in anthracite grey have been incorporated into the first- and second-floor facades.

Anthony Fitchie, principal building services engineer at PSA, explained: "The challenge was to deliver green technologies, whilst ensuring clients visiting the facilities had the perfect experience. That meant careful consideration of the ventilation supply and extraction to ensure the potentially aggressive atmosphere and high levels of humidity in certain areas such as the pools were correctly



addressed. We know from past experience that Gilberts would provide the technical expertise and product quality to support us in delivery of that challenge."

All Gilberts' products – standard lines and bespoke solutions – are designed and developed in accordance with BS EN ISO 9001:2015 quality standard in the company's state of the art 140,000 ft<sup>2</sup> facility in Blackpool. The company has its own state-of-the-art test facility, including an air movement laboratory and specialist CFD and BIM software suites, giving customers unrivalled technical support and specification validation.

01253 766911 info@gilbertsblackpool.com

# Quietly reflecting on the UK's first GenZero school

t Mary's Voluntary Catholic Academy in Derby is the first completed school in the UK to meet the Department for Education's new GenZero specification and biophilic brief. Here, architects Hawkins\ Brown have designed a beautiful combined nursery and primary school following passive design principles comprising five buildings along a central canopy for each age group coupled with amenity blocks for learning resources. They utilised natural materials wherever possible to complement the natural aesthetic and each classroom is open to the outdoors, allowing the children to connect with the natural landscape. The school is net zero carbon in operation and has won the AJ100 Award 2024 Sustainability Initiative of the Year.

As part of the design, Hawkins\Brown worked with acoustic consultants Mach Acoustics and specified Troldtekt's wood wool acoustic panels across many of the ceilings to help comply with 'BB93 Standard: Acoustics in Schools' which sets out the minimum standards for school acoustics in terms of sound reverberation time and internal ambient noise levels. Procured in an unpainted finish, the panels complement the building's timber cladding and frame, contribute to the biophilic design and, importantly, control the acoustics in the building to provide a quiet environment for learning.

Troldtekt wood wool acoustic panels are frequently specified to help transform educational spaces. Available in a wide variety of different structures and colours, they combine optimal sound absorption with an award-winning design. The Troldtekt range has a minimum expected life cycle of 50 years coupled with excellent resistance to humidity and tested to meet ball impact standards. Panels can be supplied as natural wood, unpainted based on FUTURECEM<sup>™</sup> offering a reduced carbon footprint or finished in almost any RAL or NCS colour.



info@troldtekt.co.uk www.troldtekt.com

## HMG Paint's step by step guide to flooring paints

If the prospect of painting the floor of a workshop, a warehouse or changing rooms is a daunting one then the new Floor Paints Guide from HMG is exactly what you need.

Manchester-based HMG Paints will take the building and decorating contractor through what you need to know and which



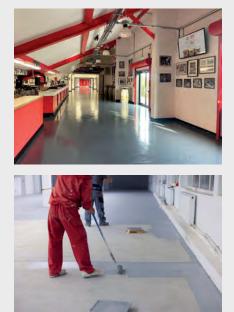
of the company's range of high performance, durable and versatile floor coatings you should select for the job in hand.

It's not just the potential size of the job, it's selecting the correct product according to the use to which that floor will be subjected: light, medium or heavy traffic; inside or outside; what is the existing substrate and how was it laid down in the first place?

The company offers three distinct coatings; HydroPro Floor Paint, Polyeurethane Floor Paint, and 2K Epoxy Floor Paint and the Guide provides a handy at-a-glance reference as to the properties of each.

It goes on to explain the importance of identifying the type of floor you will be working on. Is it new or old concrete, if new, is it power floated because this will have an effect on the adhesion of paint? If an existing floor, has it been painted previously?

According to the answers the Guide takes you through floor preparation techniques including washing and degreasing.



#### 0161 205 7631

shop.hmgpaint.com/products/categories/floorpaint/?utm\_source=fmj&utm\_medium=mpu\_ ad&utm\_campaign=floor\_paint

## **Protecting education spaces with Yeoman Shield**

Schools, colleges and universities are high-traffic environments where walls, doors and corners endure daily wear and tear. From bustling hallways to busy classrooms, maintaining a clean, safe and professional learning space is a constant challenge. Yeoman Shield provides the perfect solution with our durable wall, door, corner and handrail protection systems, designed to preserve interiors and reduce maintenance costs.



Long-term protection & cost savings

Scuffs, dents, and impact damage are unavoidable in education settings – but costly repairs don't have to be. Yeoman Shield solutions extend the life of buildings, reducing the need for frequent maintenance and repainting. This translates to lower costs and ensures budgets are spent where they matter most – on education.

#### Hygienic & safe environments

Our easy-to-clean protection systems help maintain a hygienic and professional appearance, supporting cleanliness across classrooms and corridors. Handrails provide added safety, aiding movement in stairwells and walkways – ideal for younger pupils and those with mobility needs.

#### Fire door services & installation

Compromised fire doors put safety and compliance at risk. Yeoman Shield offers fire door protection, inspections and maintenance services, ensuring fire doors remain fully functional and effective in preventing fire spread.



**Solutions for every education setting** From primary schools to universities, Yeoman Shield helps institutions maintain smart, resilient interiors. Our expert installation team ensures a seamless fit, maximising performance from day one.

Protect your education facility today.

0113 279 5854 yeomanshield.com

## Gilberts helps CBRE combine aesthetics and occupant comfort

A noffice relocation of just five metres represents a "seismic move" for global commercial real estate specialist CBRE, designed in every aspect to create a great workspace, achieved in part by careful selection of the ventilation.

The company has relocated within 4 St Pauls Square, a seven-storey Grade A BREEAM Excellent rated office development in Liverpool's new commercial district to provide its team with the best workplace



environment and have room for expansion.

Arterior Solutions was appointed to deliver the interior design developed by CBRE's inhouse team, and turned to Gilberts Blackpool to support in combining the desired aesthetics with occupant comfort.

Gilberts' omni-directional swirl diffusers blend into the exposed ductwork while enabling smooth distribution and extract of air across the floor plate without "cold dumping".

Slimline high capacity slot diffusers above the external large expanses of glass discharge vertically to maintain a clear view across the city; above the internal glazing and office entrance, the same model of diffusers have been set to horizontal airflow to eliminate any adverse draughts nor temperature change differential as people come and go.

Sean Artess, Arterior Solutions director, commented: "The senior team at CBRE Liverpool describe the relocation as a seismic move, creating a new space that is a joy to



work in. It was essential to us at Arterior that we fulfilled that dream, in every detail. The relationship we have with Gilberts made them the obvious choice for the ventilation supply and extract: we know Gilberts can be relied upon to deliver the style and quality we wanted."

The new CBRE offices are the latest in Gilberts' portfolio of high-end commercial projects, including Google's London headquarters, HMRC's Liverpool offices, Rabobank's LEED Gold premises in Dublin, and the BREEAM Excellent-rated The Lumen in Newcastle's Helix Innovation Quarter and 103 Colmore Row in Birmingham.

01253 766911 info@gilbertsblackpool.com

## **Proctor Air®: One year on**

A. Proctor Group's air permeable pitched roof underlay, Proctor Air<sup>®</sup>, was awarded its BBA certificate.

Developed based on feedback from designers, specifiers and installers – and combined with the Group's quarter of a century at the forefront of pitched roof membrane technology – Proctor Air is helping to shape best practice in the UK pitched roofing sector.

As an air permeable, low-resistance (APLR) pitched roof underlay, Proctor Air simplifies pitched roof constructions. It is one of the highest performing membranes on the market, allowing moisture vapour to escape the roof space and reducing condensation



risk. Its air permeability means no ventilation measures are required in warm, cold or room in the roof constructions. It also achieves a W1 resistance to water penetration classification and a minimum of 1m hydrostatic head.

In its first year, Proctor Air has been widely adopted by the UK pitched roof sector. Notable projects include Hatchmeadow apartments in Northumberland, where it featured in a  $2500 \text{ m}^2$  replacement roofing system.

Proctor Air helped to protect residents during the work, as the building remained occupied throughout. The completed system stopped leaks that had previously affected some of the apartments.

It has also been used on the prestigious £325m renovation of Manchester Town Hall, which is one of the biggest heritage projects in the UK. The historic roof features many intricate details with limited opportunities to provide modern roof ventilation. Installing Proctor Air meant separate roof ventilation was not required, and there will be no 'dead zones' of restricted air movement in the complex roof.



An eye-catching advertising campaign positioned Proctor Air as "the air to the throne" throughout 2024. A triumphant night at December's Construction Marketing Awards (CMAs) saw judges name the A. Proctor Group as winner in both the Best Product Launch category and the Best Advertising Campaign category.

Looking ahead to the rest of 2025, the A. Proctor Group continues to support specifiers and installers in adopting air permeable membranes.

Forthcoming developments include new technical guidance on using Proctor Air with in-line solar PV panels.

#### 01250 872 261

proctorgroup.com/products/proctor-air

## Introducing Nullifire FZ400: The pioneering 'movement-tested' fire stopping solution



Nullifire, a leader in passive fire protection innovation, proudly unveils FZ400 – a cutting-edge fire stopping product designed to accommodate movement, while maintaining the integrity of compartmentation.

Powered by patented GXT Technology, FZ400 provides the necessary continual relief of fatigue on fire stopping seals under deflection stress and protects service penetration seals with outstanding fire performance and movement-resilience.

The FZ400 has been rigorously tested to EN 1366-3/4, achieving up to two hours fire rating after undergoing cyclic movement, proving its effectiveness in real-world scenarios where structural movement is inevitable.

Using Nullifire's pioneering 'Movement Test,' developed with the support of Warrington Fire, the FZ400 was subjected to a groundbreaking procedure that replicates ceiling deflection. A wall was moved up and down by 30 mm more than 50 times over a two-hour period, then placed in a furnace to assess performance post-movement.

FZ400 is a graphite impregnated open

cell foam with a highly expansive char when exposed to heat. The water resistant film provides a cold smoke seal. This provides both flexibility and excellent fire stopping properties.

The results were outstanding:

- No ripping, cracking, or fibre migration
- Maintained a secure, air-tight fire seal
- Up to 2 hours of fire resistance maintained

The FZ400 properties are:

- Tested to EN 1366-3/4 Up to 2 hours fire resistance post-movement
- Nullifire's Patented GXT Technology Combines flexibility with superior fire protection



- Easy to install Dry fit, cut-to-size, compressible, and lightweight
- Zero fibre migration
- Retrospective fitting capability
- Creates a dynamic seal that accommodates building movement
- Tested with mixed services
- Tested as a linear gap joint superseding FJ400

Hannah Eyres, technical manager at Nullifire, explained: "Our Movement Test provides a complete framework for testing how GXT Technology adapts to real-life building pressures. We're proud to share a test that reinforces our drive toward data-driven solutions and gives architects and contractors complete confidence in FZ400. Feedback has been very positive. Architects and Main Contractor clients demand data driven solutions so the development and success of this test will be well received in the Construction Industry."

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## The role of Access Control Systems in Enhancing Building Safety



In today's environment, ensuring building safety has become a top priority for businesses. Access control systems – including speed gates, turnstiles, and revolving security doors - are instrumental in enhancing the safety and security of modern structures such as office buildings, airports, data centers, stadiums, and gyms.

When reviewing manufactures of these systems, its imperative to ensure they are adhering to the EN 17352:2022 standard, which specifies the requirements and test methods for power operated pedestrian entrance control equipment and the level of safety to be expected.

Let's now explore how access control systems can play a crucial role in building safety:

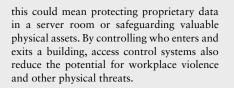
#### **Preventing Unauthorised Access**

The primary function of access control systems is to prevent unauthorised access to restricted areas within a building. Speed gates, turnstiles, and revolving security doors work by allowing only individuals with valid credentials - such as access cards, biometric scans, or keypads - to enter. This prevents unauthorised persons from entering sensitive or secure areas, such as offices, server rooms, or executive floors. Speed gates, in particular, are widely used in high-traffic areas, offering both speed and security by allowing authorised individuals to pass and stopping anyone unauthorised. Turnstiles provide a more robust physical barrier, ensuring that people can only enter one at a time, reducing the risk of tailgating or unauthorised group entry.

#### Mitigating Security Threats

Access control systems help mitigate a wide range of security threats, such as theft, espionage, or vandalism, by restricting access to sensitive areas. In a corporate building,





#### **Monitoring and Audit Trails**

Another significant advantage is the ability to create detailed audit trails. Every time someone enters or exits a building, the system records the event. This data can be reviewed later, providing valuable insights into who accessed particular areas and when. For organisations, this means they can monitor employee movement, track incidents, and ensure compliance with security protocols.

#### Enhancing User Experience and Operational Efficiency

Access control systems not only improve security but also enhance users experience. By allowing seamless, frictionless access to authorised individuals, these systems reduce the need for manual checks or queues. This is especially valuable in high-traffic areas where efficiency is key.

#### Cost Savings in the Long Run

While the initial cost of installing an access control system might seem

significant, the long-term benefits outweigh the investment. By reducing the risk of theft, vandalism, and unauthorised access, building owners and managers can save money on repairs, replacements, labour costs and insurance premiums.

#### GEZE Solution: PACE (Pedestrian Access Control Equipment) – Using TiSO product technology

These systems are designed to manage and control access for individuals, commonly used in locations such as data centers, airports, train stations, stadiums, and other public spaces or areas with heightened security needs. You can choose from various options, including speed gates, turnstiles, or revolving security doors. We offer the ideal solution for a wide range of requirements. All products are manufactured in strict compliance with international standards and meet all modern, quality, safety, design and usability requirements, such as EN 17352:2022.



info.uk@geze.com www.geze.co.uk/en

## Bradite transformation makes store exterior best on the market

Thanks to the innovative use of Bradite's One Can at a local estate agents' property, a Manchester firm of decorators have labelled One Can their 'go-to exterior paint'.

Heritage Decorators was engaged by Empire Joinery to paint a new shopfront for local estate agents 'Ashworth Holme' in the town centre of Sale, Cheshire.

The prominent building, dating from 1921, was refurbished with the replacement of deteriorated signage, windows and entranceway. The client requested a traditional shop frontage that would complement the building's architectural style.

"Originally", explains Heritage Decorators' Oliver Brigham-Bowes, "we specified the job with an old-school approach in mind, using traditional methods of aluminium primer and oil-based primers/ undercoats and oil-based external topcoats."

But the spec changed after a trip to a decorators' merchants in Altrincham,



and a discussion about potential weather problems using oil-based products as winter came closer, due to their slow drying times. They concluded that a water-based product that offers a speedy drying time without compromising on durability would be highly preferable.

"They recommended Bradite One Can due to its high adhesion, tannin blocking

capability and multiple finish and colour options", says Oliver. Bradite One Can is touch dry in 30 minutes, with recoats possible after one hour, making it ideal for exterior painting projects.

He admits: "I have always been dubious to use a paint that says it does everything but, even after our first coat, I could tell that there was something different about the science behind this all-in-one product. Not only did it key to bare and pre-painted timber, cover extremely well and dry quickly, but it left a finish that the customer was overjoyed with."

The completed job provides a sleek, excellent first impression to people seeking the services of the estate agents.

Oliver adds: "This paint delivered beyond our expectations. Thanks to Bradite for helping us achieve such a great finish with ease – we will now be using it as our go-to external paint."

01248 600315 www.bradite.com

### Euroform's WeatherClad® meets brief for Ilfracombe homes

uroform's WeatherClad® wood effect shiplap planks have been selected for Devonshire Homes' new Ilfracombe development, Mariner's Haven. Euroform is supplying the low maintenance, fibre cement planks, which are manufactured according to BS EN 12467: 2012+A2:2018 and have BDA Agrément certification, in six bespoke colours.

Devonshire Homes has designed the Mariner's Haven homes in sympathy with the landscape. A number of the house types will feature half shiplaped exteriors to reflect the character of the development's coastal location in an elevated position overlooking Ilfracombe.

Performance and look were key criteria for product selection for Devonshire Homes. Initially, Euroform provided samples of eight bespoke colours from which the housebuilder chose six to depict sand, grass, sea and sky. WeatherClad<sup>®</sup> is also available in 21 standard colours, plus RAL and NCS colours on request, and Euroform provides a comprehensive range of colour matched profiles and trims.

The natural timber effect of WeatherClad<sup>®</sup>, with its random embossed grain, and the width of the board will both add to the pleasing look. WeatherClad<sup>®</sup> boards are 230mm wide, wider than most similar boards on the market.

WeatherClad<sup>®</sup> carries third party BDA Agrément certification from KIWA, a certification recognised by architects, specifiers, engineers and building control personnel. Certification confirms the product's suitability and fitness for



purpose in terms of performance and durability. WeatherClad® has a European Classification of A2-s1,d0 for Reaction to Fire in accordance with BS EN 13501-1.

Weatherclad<sup>®</sup> is part of the range of Euroform's Code for Construction Product Information (CCPI) assessed products.\*

Angus Cook, Managing Director at Devonshire Homes, commented: "One of our top priorities when bringing our new homes to local communities is to ensure properties are sympathetic to the local environment. This is precisely why we chose Euroform's WeatherClad® as the colours on offer complimented the countryside and ocean scenery surrounding Mariner's Haven. We always look to use high-quality products that will stand the test of time, and WeatherClad® promises to do just that with its strong durability and water vapour resistance. The team at Euroform have been a pleasure to work with and have provided support throughout the construction process as we work towards bringing these modern and energy-efficient homes to local house hunters who really need them."

Euroform's specification manager Kieran Huotari-Francis explains: "WeatherClad® is wider than traditional cement-based cladding planks and aesthetically more pleasing than narrower options. It was good to meet with Devonshire Homes to discuss their requirements, so that we could meet with their preferred bespoke colour choices and address their technical queries. We are working with their on-site team to provide support during construction."

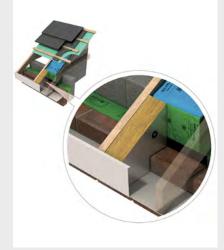
WeatherClad® can be purchased from Euroform in split pallets, helping customers to avoid waste. There is no minimum order. Euroform has an easy-to-use online tool for calculating the number of boards required for projects: https://www.euroform.co.uk/ weatherclad-calculator/

\*www.cpicode.org.uk/verification-number/0009000421225

01925 860 999 www.euroform.co.uk

### Mayplas Thermal Soffit achieves A2 Reaction to Fire classification

Mappin applas' Thermal Soffit, just launched in March, has now achieved an A2 Reaction to Fire classification and has been renamed 'Thermafire A2 Soffit'. The product is part of a range of insulation that Mayplas, a specialist manufacturer in passive fire protection, acoustic and thermal insulation, offers the housebuilding and construction industries.



Confirmed following testing as Reaction to Fire A2-s1,d0 according to BS EN 13501-1, the limited combustibility slab provides thermal and acoustic insulation within the soffit at the party wall junction.

Available in thicknesses of 100 mm and 150 mm, permitting the design of thermal performance to suit the construction, the Mayplas Thermafire A2 Soffit facilitates thermal resistance values to Approved Document L. It is suitable for both masonry and timber frame constructions.

It also provides resistance to the passage of sound, synonymous with stone mineral wool insulation.

Standard 600 mm x 600 mm slabs can be cut to size on site to ensure an accurate cut to fill the full soffit void at the party wall. The soffit can be secured through the product to the timber truss or masonry block using the correct length of fixing for the width of the product. Mayplas can supply appropriate fixings.

In terms of application, the Thermafire A2 Soffit is valid for any wooden-based substrate and is also valid with or without a cavity to the opposite side.

"Achieving an A2-s1, d0 Reaction to Fire classification for our Thermafire soffit product is proving very useful," comments Michael Hunter, Mayplas' technical director. "The test results open up new applications which we look



forward to exploring with our housebuilder customers and with the construction industry more broadly."

The Thermafire A2 Soffit is foil faced to provide an effective vapour barrier and the foil also prevents fibre migration.

0161 447 8320 www.mayplas.co.uk/housebuilding-solutions

## Unique facade for property developer

mpress with surprising choices and stylish combinations? Arteco does the trick. The property developer showed off its skills in the French town of Saint-Nazaire, flanked by the surging Loire. The impressive facade is dominated by the Linius facade cladding from Renson. The invisible screens ensure pleasant indoor temperatures.

The Arteco house in Saint-Nazaire, in Loire-Atlantique, is a conceptual building. "This local branch is about 200 square metres," explains branch manager Mickaël



Euzenat. "For this project, we relied on suppliers of high-quality and utilised special products, such as external insulation, innovative heating systems, and Renson's aluminium facade cladding."

### High-end concept with refined materials

The 'out the box' building combines a domestic exterior with an office interior. Aesthetics and practical added value come together in a selection of refined materials. "The principle of a high-end concept, but in a homey atmosphere," emphasises Mickaël. "Customers can see the products here in a different way. And our ideal geographical location called for a real eyecatcher."

Instead of traditional wooden or aluminium cassettes as facade cladding, the architects opted for blades, for external insulation and to really draw attention. The horizontal aluminium Linius blades – resistant to the salty sea air – create unique and fascinating shadow effects. The white facade cladding on the first floor is a nice contrast to the Linius blades on the ground floor.



#### Lessons from the past

Renson was also the point of contact for efficient and windproof (up to 130 km/h) sun protection, a practical choice with no impact on the facade appearance, despite the thick layer of insulation. In opting for blinds, Arteco drew lessons from the past. A branch in Lorient, built in 2007 without sun protection, quickly ran into an overheating problem and needed active cooling. The Fixscreens prevent the same scenario in Saint-Nazaire. All whilst maintaining the sleek architecture.

www.renson.net

# Out of this world innovation from Senior helps shape Nottinghamshire's new science centre

The new Planetarium & Science Discovery Centre at Sherwood Observatory in Sutton-in-Ashfield is bringing the universe a little closer to home, thanks to a stellar combination of innovative architecture and high-performance glazing solutions from Senior Architectural Systems.

Designed by Anotherkind Architects and delivered by GF Tomlinson, the state-ofthe-art facility is set to become a beacon for science education in the UK. Constructed on the site of a disused Victorian underground reservoir dating back to 1886, the facility honours its rich heritage by retaining original features such as intricate brick arches and vaulted ceilings. These preserved elements provide a unique and atmospheric backdrop to the centre's underground exhibition space and modern amenities, which include a cafe, education centre, classrooms and meeting areas.

The stunning facade has been designed to maximise natural light while providing



efficient thermal performance, with Senior's supply chain partner Optimus Architectural Ltd installing a trio of the manufacturer's most popular products. This includes Senior's patented PURe® aluminium commercial doors, SPW600 automatic opening ventilation (AOV) aluminium windows, and its slimline SF52 aluminium curtain wall system. Combining slim sightlines with strength and durability, Senior's SF52 curtain wall system has been used to frame

the expansive glazing panels that enhance the building's contemporary aesthetic and provide stunning views of the surrounding landscape. The system has been specified with feature caps, which add further interest to the facade design. Senior's robust PURe® commercial doors, which offer marketleading thermal efficiency, also help create a comfortable environment and provide safe and secure access for visitors and staff alike. The manufacturer's SPW600 AOV windows, designed to aid natural ventilation and smoke control, further contribute to the building's sustainability credentials.

The new planetarium is seamlessly integrated within the Sherwood Observatory Science Discovery Centre, forming the heart of the facility.

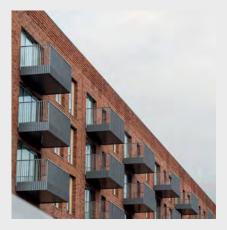
For more information, please search for Senior Architectural Systems on LinkedIn and Facebook.

01709 772600 www.seniorarchitectural.co.uk

### Sapphire Balconies Enhance Outdoor Living at Deptford Wharves Plot 4

Sapphire's balconies are bringing highquality outdoor living spaces to apartments in Plot 4 of Lendlease's Deptford Wharves development. A total of 217 apartments feature Sapphire's Next Generation suite of balconies, complete with flat infill vertical bar balustrades, providing a sleek and modern aesthetic.

Deptford Landings is made up of six thriving neighbourhoods, including the first phase which is now 100% sold. Delivering 1,132 homes, the development is innovatively designed to complement the surrounding area, creating a cosmopolitan community steeped



in history. A notable feature of Plot 4 is its use of Cross-Laminated Timber (CLT) for the building frame, offering sustainability benefits, excellent structural performance and reduced construction time due to off-site prefabrication.

The Sapphire team worked with Lendlease to manage balcony deliveries to the Deptford site as a small site footprint meant there was very limited on-site storage available. This meant that not only could the balconies not be stored on-site awaiting installation, but it meant that transport logistics needed to be considered at an early stage.

The innovative RLD connection played a crucial role in overcoming these constraints. By allowing balconies to be pre-slung on lorries and lifted straight into position, the installation was streamlined, reducing the need for temporary storage. The connection arms were integrated within the balcony Cassette<sup>®</sup>, eliminating any requirement for installers to step out onto an unsecured load. Additionally, the use of the G60 non-combustible anchor ensured compliance with fire safety regulations, fully thermally breaking the facade and mitigating any fire concerns related to the CLT structure.

Sapphire's innovative design combined the Next Generation Cassette, the Remote Locker Device (RLD) connection solution, and the G60 anchor to streamline the project.





These elements reduced the project's carbon footprint compared to previous systems, increased installer safety, and ensured seamless project delivery.

0333 034 4569 balconies.global

#### Securing Health for the community at Learnington Spa



An over-demand for health services within the Lillington community in Leamington Spa prompted the development of a new two-storey health centre, which integrates primary care services alongside a range of community health teams. A requirement to meet Secured By Design security standards led to the specification of Integr8 window and door shutters from Charter Global. The Integr8 shutter is independently tested under the Loss Prevention Standard LPS 1175 to security rating SR2 and is recognised by Secured by Design as a police-preferred specification. Integr8 is a lintel shutter system, meaning that the unique design is engineered to integrate within the fabric of the structure and the built-in roller shutters sit within the load-bearing lintel of a window or door. This makes it an ideal solution for new-build projects in many industry sectors, as the hood box is completely hidden and in keeping with the aesthetics of modern building design. When the shutters are raised, a passer-by would be none the wiser that any shutters are present, however, when dropped, the shutters give a sleek and secure finish.

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

#### **Rising demand for Yorkshire stone paving**



Whether it's a classic English country garden, a high-end restoration project, or a contemporary property seeking a grounding, natural aesthetic, Yorkshire stone continues to prove why it has been the material of choice for centuries. Combining natural beauty,

unbeatable durability, and local provenance, it is the ultimate in sustainable, timeless construction and landscaping. **Britannia Stone** are seeing increasing demand for their Yorkshire paving slabs and walling stone, not just from across the UK, but internationally too.

info@britanniastone.co.uk www.britanniastone.co.uk

#### **Reclaimed Brick Tiles see surge in demand**



With the ever-growing focus on sustainable building practices, heritage design, and character-rich interiors, the demand for brick tiles is soaring. **Reclaimed Brick Company** have seen a sharp rise in orders for their handmade brick tiles, crafted from genuine reclaimed

> The perfect access control system for a range of

buildings

bricks salvaged from buildings across the UK. This growing popularity is no surprise – it's a trend driven by a unique mix of aesthetic, environmental, and practical benefits that brick tiles offer.

 $info@reclaimedbrickcompany.co.uk \ \ reclaimedbrickcompany.co.uk$ 



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