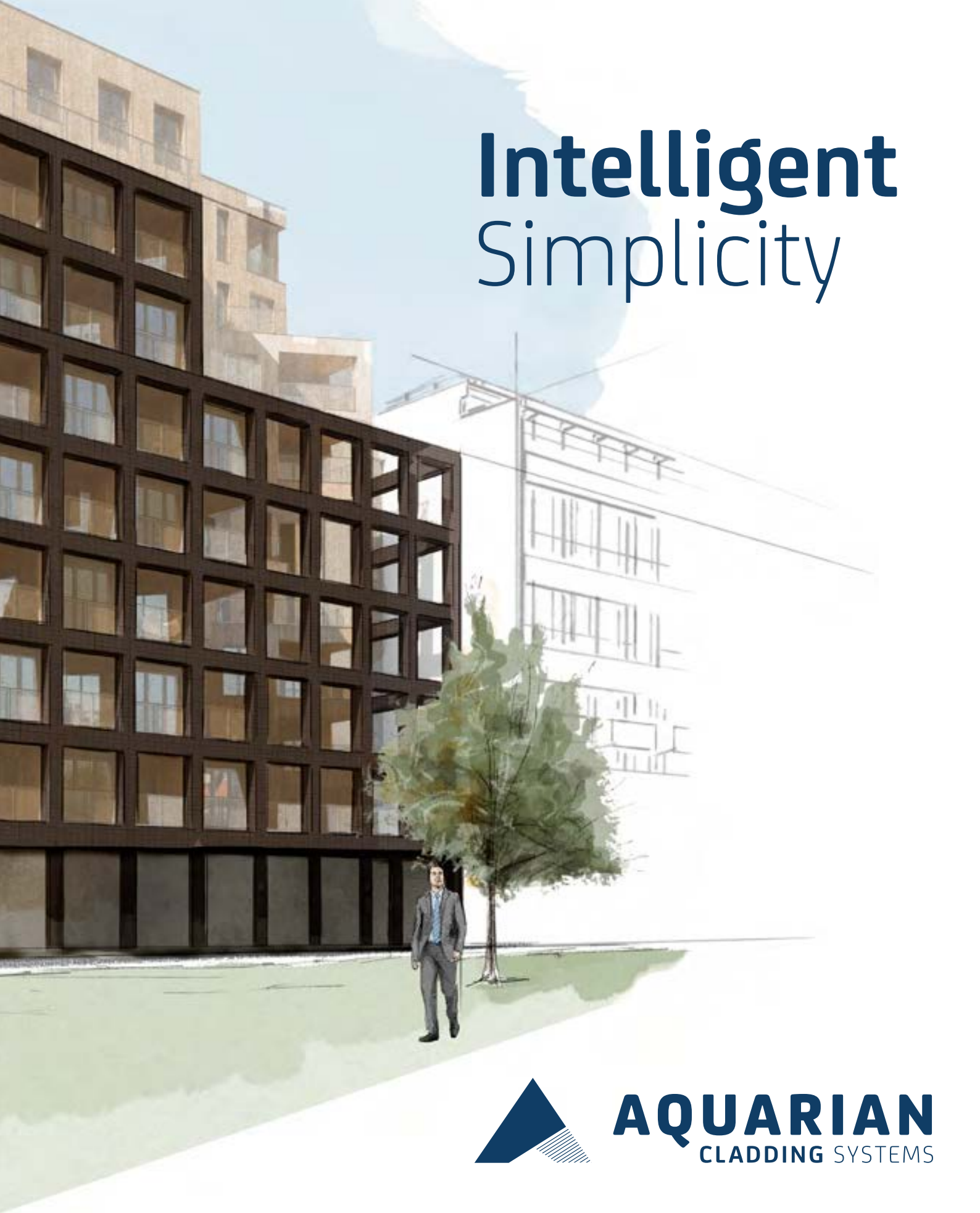


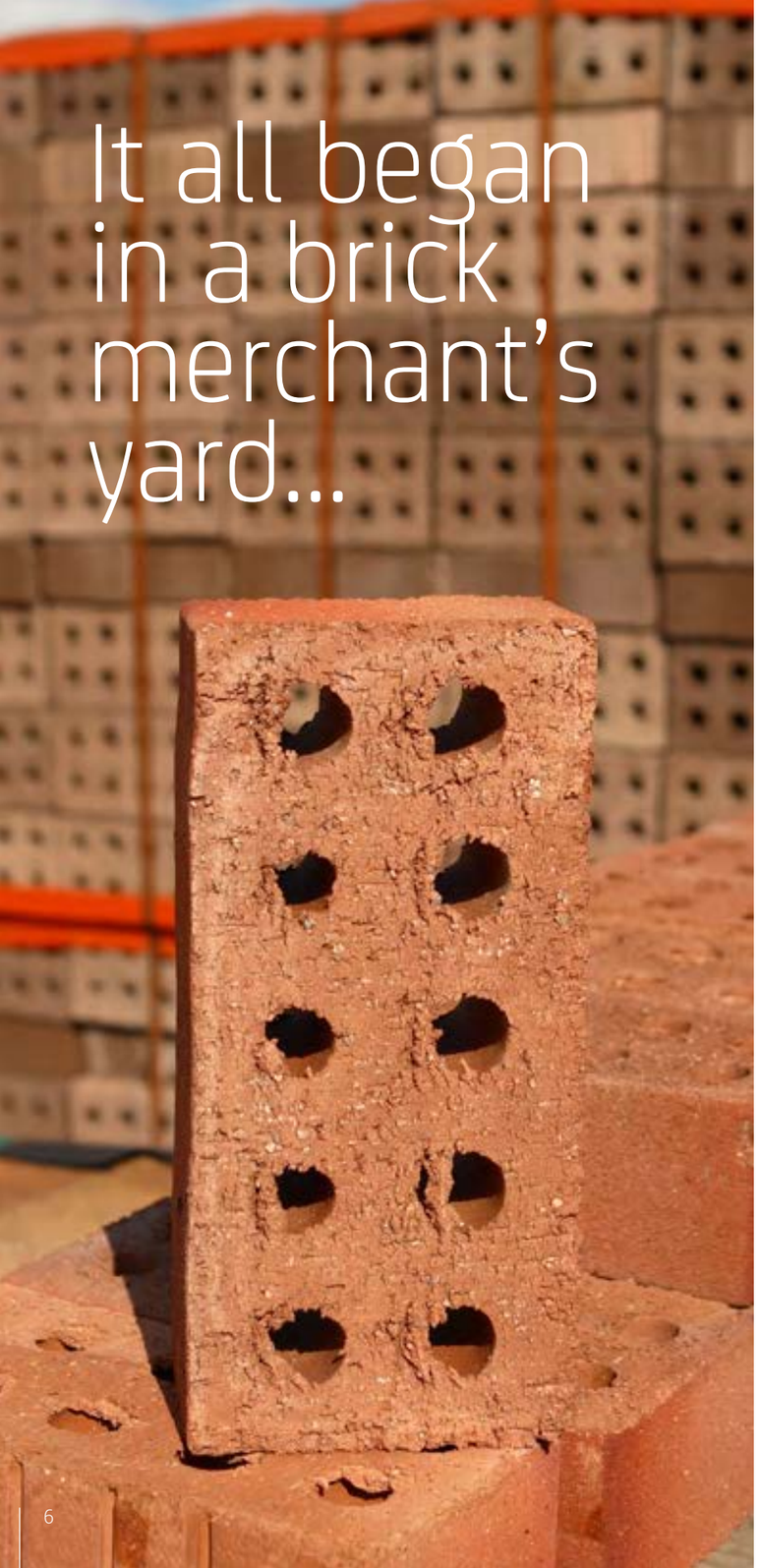
Intelligent
Simplicity

AQUARIAN
CLADDING SYSTEMS

“To raise new questions, new possibilities, to regard old problems from a new angle, requires creative imagination.”

ALBERT EINSTEIN

Contents



It all began in a brick merchant's yard...

Man and boy, our founder Paul Richards has been part of the construction industry ever since he left school.

He took a job with one of the UK's biggest brick and timber merchants as a teenager, starting in the yard, getting his hands dirty checking timber and bricks. Paul proved himself, got a feel for the industry and began to work his way up.

As time went by, he built on his experience and relationships with developers, contractors and architectural practices and saw that there was an opportunity for things to be done better. He realised that techniques and technology, and the possibilities they brought, were evolving and was determined to improve the way we clad buildings here in the UK.

The construction industry can seem a bit stuck in its ways - resistant to change and new ideas - which presented a challenge to Paul and proved problematic for his employers. To some it seemed a leap of faith to move away from more traditional construction to the high-performance materials that Paul was proposing.

But in the early 2000s, procurement culture and slowly changing attitudes towards skills shortages engendered a shift towards more efficient construction practices. The Constructing Excellence initiative established itself as an industry-wide organisation to champion progressive construction and act as a driver for change, so Paul wasn't alone.

"It became clear to me that we couldn't just carry on doing things the way we'd always done them," says Paul. "It seemed that the construction industry's mindset was ready for change." So Paul decided to go it alone. In 2007 he established Aquarian, starting from a single desk in the back bedroom of his house.

The team has expanded significantly since then, but Aquarian's first project will always be remembered as "feeling like a moment of truth - watching the product being installed and performing uniquely."

150 or so projects later, we've come a long way. We're still independent, but we're established: a multi-million pound turnover managed by a small, hand-picked team bringing decades of experience, specialist knowledge and industry insight, and Paul is now a director of Constructing Excellence South West.

Every member of Team Aquarian shares the same thorough, strategic approach and together, our wealth of expertise means that alongside systems that are tried and tested, we can provide design, technical support and on-site training.

We'll meet the warranty providers and exceed industry standards across the board. We take total responsibility for our products and the service we provide, tracking the whole job from concept to completion, understanding the client's needs, monitoring and managing to keep work progressing smoothly.

We seek to identify like-minded suppliers with cladding solutions that bring real rewards in terms of construction and usage efficiency. But as inventive as they undoubtedly are, they will also be totally dependable. It's essential that we only offer tried and tested solutions and through intelligent sourcing we have identified products that have been used for decades all over Europe with great success.

Our cladding systems are reassuringly robust, having undergone exhaustive fire tests, impact tests, pressure tests and storm simulations. We meet and often exceed expected industry standards with every assessment, meaning the warranty providers like what we do too. We're proud to offer no-nonsense products for a no-nonsense industry: Rock solid, reliable, well-designed.

We prove ourselves time and time again, and we're always working to enhance and support our solid reputation to ensure repeat business from satisfied clients. We're well equipped to meet the growing demand for cost-effective construction, particularly for taller buildings or buildings built on tight sites to tight programmes.

We will continue to source innovative solutions and it's our goal to be recognised as the trusted, go-to experts for bringing intelligent, high quality systems to market. We've got the connections, the expertise, the rigorous testing and reputation for reliability, so we're perfectly placed to represent a wider range of suppliers and products.

Combining independence, intelligence and invention, the Aquarian approach is beautifully simple: we listen to what is required and we can be relied on to provide it.

Let's build better together.

"Attention to detail and a real open-mindedness are what set Aquarian apart. We'll explore every possibility..."

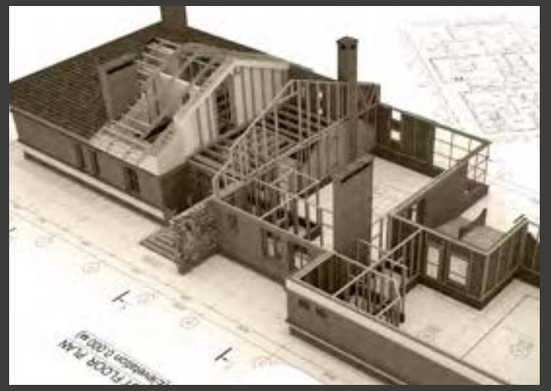
Commercial
Listening

"For me, the job's all about listening. That's how I find out exactly what our clients need.

Our products create interest by their very nature: lightweight but robust and high-performing - qualities which mean they're often perceived to be new and untested. In fact, our key product line's been manufactured for over 30 years and has a proven track record throughout Europe.

Once people understand how good the product is, my role becomes one of building mutual understanding – finding out exactly what you want, then demonstrating how our products can do exactly what you want them to do. I make sure everyone's on the same page and that we can deliver on our promises."

Julian Venus, Sales Director



Technical
Exploring

"Good design means making the intelligent seem simple. I like to understand what the designer has in mind at the earliest stage so we can get to work producing thermal calculations and creating 2D and 3D modelling of a detail so the customer can visualise exactly what the end result will look like, and how it will be achieved.

Attention to detail and a real open-mindedness are what set us apart. We explore every possibility, taking the time to find how to get the best possible result. The challenge for me is bringing two very different worlds together: the architect's dream and the on-the-ground reality of the construction site. But by listening, thinking and careful planning we make it work.

It takes a lot of liaison and creative thinking but it's so satisfying when we see even the most complex design completed on time and on budget."

Roger Inglis, Technical Sales Support

Practical
Boots on the ground

"I'm Aquarian's boots on the ground, travelling the length and breadth of the country to deliver on-site technical advice and training, then returning for regular progress reports to keep every build on track.

I tend to work on my own, but in constant contact with the order processing team. It's an ongoing involvement, all the way through: information, support and communication. The Gebrik system is one of the simplest on the market. It's a solid, no-nonsense product that the architects, developers and contractors I work with are really buying into.

With the right training, I find installers get the hang of it fairly quickly. Architects seem to like the choice of finishes and the adaptability. Contractors and developers definitely appreciate the efficiency and speed of installation. Once they've tried it once, they tend to come back for more, which is always satisfying for me. After all, repeat business is the best feedback I can get."

Chris Gill, Installation Support

Logistical
Joining the dots

"I'm the voice of Aquarian – the one you'll probably get when you pick up the phone. I like being at the centre of things, because it's behind the scenes where everything comes together. We're a close-knit team, which means that from the moment an order's placed, we're in control. I'll make sure we know exactly what each customer needs and when they need it, then I work proactively with suppliers, hauliers and on-site teams to make sure everything gets where it's needed.

It's all about connections, from the relationships we build with our clients to the way our designs have to work in the real-world, from our direct links with suppliers and contractors to the way our products physically lock together. I like to think that I link all aspects of the business, connecting clients to the commercial team, commercial to technical, technical to practical.

After all, good construction means knowing that everything fits together just as it should. And that's exactly how we do business."

Paula Hamilton, Sales Order Processing Coordinator

Project: The Cube, 17-21 Wenlock Rd, Hackney, London
Architect: Hawkins\Brown Architects LLP
Client: Regal Homes

AQUARIAN

Inventive • Intelligent • Independent

Inventive

We're always thinking. Thinking 'how can this be done better? How can we make your build faster, more efficient and more reliable?'

The answer is innovation, which keeps our proven product line evolving. Our ongoing investment in product development means we consistently deliver robust, efficient building technologies, and we're always seeking new ways to combine these for improved performance and value.

Our off-site manufactured, energy-saving systems and their fast-track construction deliver real benefits to developers, architects and contractors alike. Let us help you build better.

Project: The Movement, Norman Rd, Greenwich, London
Architect: PRP Architects LLP
Client: Prime Place

AQUARIAN

Inventive • Intelligent • Independent

Intelligent

With Aquarian you get brilliance built in. Our vast product knowledge and industry expertise mean we guarantee simpler, faster builds that perform precisely as they should. Our systems are tried and tested, their installation is swift and straightforward and they need little or no maintenance. The benefits we bring to your project are all rooted in working more intelligently, using quality systems and components for streamlined construction and better-performing buildings.

We're happy to provide procurement and technical advice to developers, architects and building contractors to minimise the risk of surprises throughout design, specification, tendering and installation.

From residential to retail, public or private sector, we connect current building practice with progressive technologies to save time, money and the environment.

Project: Angel Lane Student Accommodation, Stratford, London
Architect: Hadfield Cawkwell Davidson
Client: UNITE Students & King's College London

AQUARIAN

Inventive • Intelligent • Independent

Independent

We've always been proudly independent. We started with the simple aim of helping our clients evolve more sustainable building practices for the 21st Century and beyond. Being independent means we can be bold, open to fresh ideas and have the flexibility to customise every project to suit you.

It means we're free to work with whichever suppliers we like, to ensure we deliver the most suitable products for your project. We're well established but far from stuck in our ways – moving with the times to stay agile, adaptable and ahead of the curve.

Quietly **Confident**

Belgium. Home to more than just beer & chocolate...

You've probably never heard of Schoppen, a quiet little place tucked away in the German-speaking region of East Belgium. Green fields stretch to the horizon. Birch trees shimmer in the breeze. First impressions are that not much happens here. Historians might point out that it was the site of the Battle of the Bulge, but for us, Schoppen's the place where our key product line, Gebrik, is made.

History

Set amidst a 45,000sqm industrial area, the 8,500sqm purpose-built factory has housed skilled workers meticulously making insulating cladding systems faced with bricks, stone and ceramic tiles since 1980. In 2005, Genorm AG, the original inventor of Gebrik, was purchased by Isosystems AG, a privately-owned Belgian company. Isosystems now work closely with its national distribution partners to identify clay bricks, natural stone and ceramic tiles from suppliers throughout the world who can produce to the demanding tolerances required to enable the slips and tiles to be cast in moulds. These inventive cladding systems have now been supplied to more than 15 countries worldwide and Isosystems annual turnover continues to grow steadily.

"These inventive, adaptable cladding systems are now supplied to more than 15 countries worldwide, with the potential to produce 250,000^{sqm} per year."

Quality

Isosystems has built a solid reputation for quality with nearly four decades of experience in the industry. Their cladding systems can be seen on award-winning architecture across Europe and beyond, from Russia to Japan. Every aspect of production is carefully controlled to ensure their products meet the stringent performance regulations required by independent European Technical Approval bodies. A CE Mark was achieved in 2015, and they now have National Technical Approvals in Belgium, France, Netherlands and the UK.

Dependability

The onsite laboratory is where the products get put through their paces, to make sure every safety and performance regulation is surpassed.

The thermal, water absorption, compression and density properties of the insulation are checked, in addition to the performance of the complete panels and corners, which are rigorously tested for fire, pull-over and adhesion.

The result? A robust, dependable, factory-controlled cladding system you can rely on.

Sustainability

The materials used are sustainably sourced wherever possible, with particular emphasis placed on the polyurethane supplier to ensure that ISO14001 is in place to avoid the potential for ozone-depletion caused by the blowing agent during manufacture.

Once they've been produced, tested and quality-checked, all materials are supplied shrink-wrapped, palletised and clearly marked, to ensure easy storage and installation.

Innovation

Always at the forefront of innovation in construction, our manufacturing partner continues to invest in production, spending €1M on new facilities in 2015 alone, to enhance their working processes and help develop new products.

Schoppen may be quiet. But like Isosystems, we don't need to shout. With an offering so robust, reliable and endlessly adaptable, we prefer to let the product do the talking.

"The onsite laboratory is where our product gets put through its paces, to make sure every safety and performance regulation is surpassed."

THE NUMBERS

PRODUCTION TO DATE:
over 3.5 million m^2

COUNTRIES SUPPLIED:
15

FIRST GEBRIK PROJECT SUPPLIED:
1980

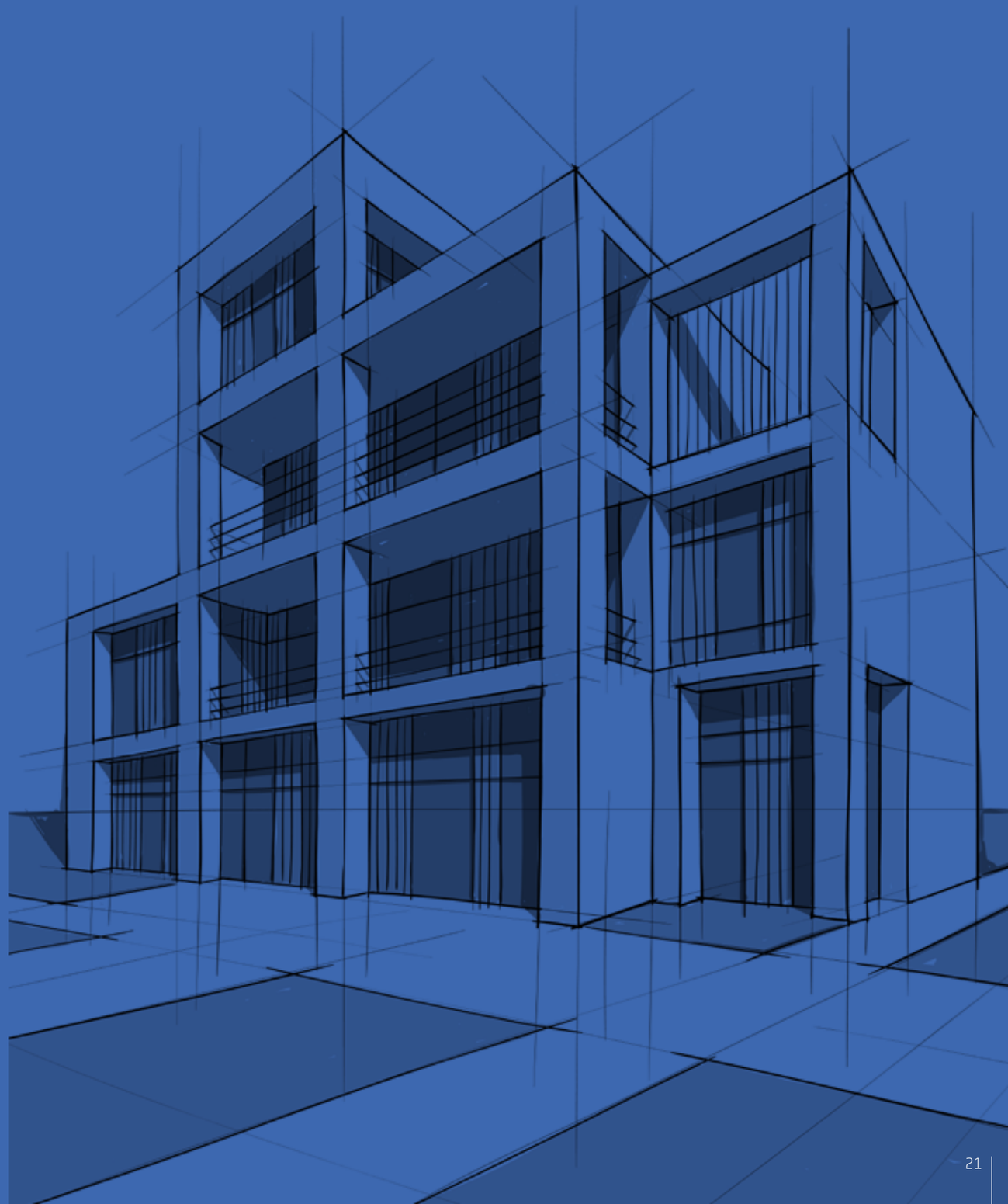
FACTORY AREA:
8,500sqm

CURRENT ANNUAL CAPACITY:
250,000m^2

CASE STUDIES

Explore your ideas

it’s amazing what you can do with our product...



DESIGN VERSATILITY AND SPEED OF INSTALLATION

A groundbreaking project made beautifully simple

"With a very demanding brief from the client and contractor, Aquarian provided excellent service throughout the project."

DAVE HOW
CCS FACADES

PROJECT NAME

THE PORTER BUILDING, BRUNEL WAY, SLOUGH

This striking new office development ensures its business occupants benefit from wellbeing built in. Designed by architects TP Bennett and built by Bowmer & Kirkland for developer Landid, the Porter Building is a prime example of Gebrik's market-leading adaptability, colour range and high quality finish.

BRICK FINISH

FE01-93

CLIENT / DEVELOPER

Landid

MAIN CONTRACTOR

Bowmer & Kirkland

INSTALLER

CCS Facades

ARCHITECT

TP Bennett

The Porter Building presented a range of demanding challenges for the Aquarian team but now complete, this flagship project has transformed a key development area in central Slough.

Thanks to Gebrik's impressive versatility, both the project architect's exacting requirements and the build programme's tight timeframe were met, with over 4,000m^2 of Gebrik installed by specialist cladding company CCS Facades in 7 months. Dave How, Quantity Surveyor at CCS Facades, confirms: "The main drivers for using Gebrik were the large choice of bricks, components and bond patterns to choose from, quicker install times than traditional brickwork, and mostly non-weather dependent installation. Gebrik was the natural choice for this project."

The facade's stepped design included many features, including 3 different bond patterns, which would have been difficult to replicate with conventional brickwork. The brick finish was of such major importance, Aquarian worked closely with the client Landid and architects TP Bennett to get exactly the look they were after, which included factory visits to Germany and Belgium.

David Blair, Principal Director of TP Bennett is delighted: "The striking contemporary façade plays a key role in signalling the process of change and regeneration that is now happening in Slough. The materials where chosen to represent the best in contemporary office design, and also to reflect the history of the area, complementing the adjacent railway station and listed church."

The huge choice of panel modules and corner components made assembly easier and Gebrik's proven low-maintenance and durability will ensure the building continues to look stunning well into the future. "With a very demanding brief from the client and main contractor, Aquarian have provided excellent service throughout this project," says Dave How, "their expert guidance with brick choices, numerous site visits and technical help provided at design stage has been invaluable. Local planners have also been highly impressed and we understand will be looking to recommend the use of Gebrik on future projects in the local area."

Since its successful completion, the Porter Building has won the 2018 British Council for Offices' (BCO) Regional Award for Innovation. It has also been accredited to the International Well Building Institute (IWBI) - a mark of its success in creating a work environment that's good for both body and mind. "We're really pleased to have helped design and deliver the first commercial office building in the UK to achieve WELL Building Standard certification," says David Blair. "Staff wellbeing and productivity are at the heart of our design concept and this huge achievement sets a precedent for future office design."

"The striking contemporary façade plays a key role in signalling the process of change that is now happening in Slough."

DAVID BLAIR
TP BENNETT

SAY HELLO TO MORELLO

Technical expertise and efficient installation combine in this exciting regeneration project

"Aquarian's Gebrik cladding helped us achieve a quick, efficient build programme."

DAMIEN TREANOR
DIRECTOR, ERRIGAL FACADES

PROJECT NAME

MORELLO, ORCHARD ROAD, CROYDON

BRICK FINISH

VS71-28

VS71-41

CLIENT / DEVELOPER

Menta Redrow

INSTALLER

Errigal Facades

ARCHITECT

Axis Architects

A landmark development designed by Axis Architects for Menta Redrow, Morello comprises four blocks ranging from 8 to 17 stories. Together, they provide 300 residential units behind a layered façade of over 12,000m^2 of Gebrik cladding installed by Errigal Facades. The project epitomises the best in contemporary construction and now forms a key part of an exciting new regeneration zone in south London.

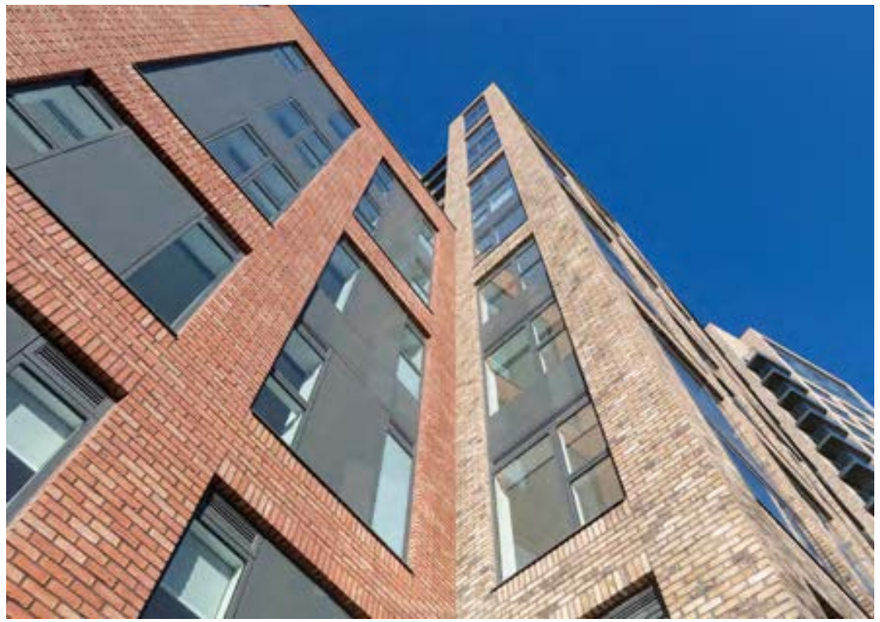
Described by developer Menta Redrow as "the beginning of an exciting new era for Croydon" the Morello development forms part of a £1 billion regeneration reshaping the area as a desirable place to live and work.

Gebrik was considered an ideal solution to enable all program targets to be hit and, on the basis of their ability to deliver a project on this scale, Errigal Facades was selected by Redrow from the Aquarian Approved Installer Network to install the unique brick cladding system - completing all four blocks over a 16 month period.

Errigal Director Damien Treaner comments: "The use of Gebrik helped us achieve a quick, efficient build programme with a lightweight brick cladding solution. Logistical issues on site, such as structural support, access and storage, were significantly reduced - this was particularly important as all vehicles approaching the site during construction had to be held in an offsite holding bay before being authorised to deliver." As Gebrik arrived in load sizes of approx. 600m^2, Errigal received around 70% fewer deliveries than would typically be expected for brick loads. Damien continues: "each pallet contained approx. 25m^2 of panels, so our storage requirements were also reduced - by around 65% compared to brick."

Aquarian were on hand with expert technical support, ensuring that all stakeholders, including warranty provider NHBC, were satisfied that the BBA certificate and BR135 large scale fire report were appropriate for the through-wall construction process used on the building.

The end result? Another high-profile project completed with great success. Already drawing favourable comparisons to other local projects, Morello is a unique development in an exemplary location. It is a project we're proud to present as a showcase of Aquarian's expert service and support as well as a perfect example of Gebrik - our robust, intelligent and innovative brick cladding system.



"Logistical issues such as structural support, access and storage, were significantly reduced."

DAMIEN TREANOR
DIRECTOR, ERRIGAL FACADES

A STYLISH & ROBUST REFURBISHMENT

A fraction of the time, cost and work of conventional construction methods

"Using Gebrik proved to be quieter, faster and less disruptive than conventional construction methods, which helped us maintain a much tidier and smaller site storage compound."

LEWIS ROGERS
SITE MANAGER OF RAYMOND BROWN

PROJECT NAME

HAMPSHIRE COUNTY COUNCIL

SCHOOL REFURBISHMENT PROGRAMME

Greater efficiency, lower costs and improved learning environments were among the many benefits achieved by using our Gebrik system to refurbish Hampshire County Council's prefabricated school buildings. This major, ongoing project demanded swift build times, phased working and minimal disruption.

BRICK FINISH

FE40-44

CONTRACTOR

Raymond Brown

INSTALLER

Facade Concepts

ARCHITECT

HCC Property Services

CLIENT

Hampshire County Council

A growing demand for classroom space and a need for improved efficiency and lower costs have led Hampshire County Council to update many of its prefabricated school buildings. Using Gebrik from Aquarian to clad the existing frames has allowed for real enhancement of external aesthetics and internal space whilst reducing heating and maintenance costs.

The original buildings' large windows and inefficient wall construction meant heating and maintenance costs were rising. But the steel frame structures remained sound, allowing for a full refurbishment of the façade, increasing both efficiency and interior space.

Colin Burville, Technical Services Manager at Hampshire County Council explains: "Conventional cavity brickwork was not an option as we would have had to excavate and construct new foundations. So we opted for light-gauge steel infill panels with lightweight, insulating cladding systems to provide a quick, clean and cost-effective solution, removing extensive site works from the extremely tight build programmes."

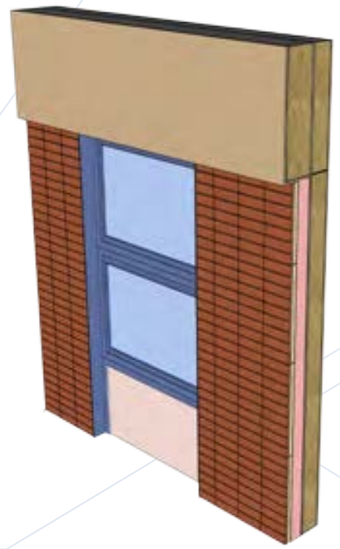
To minimise the build cost and programme, the existing structural frame and foundations were retained, with stackbond Gebrik and render considered the best option for the cladding. The façade's external corners, door and window openings were framed with powder-coated aluminium flashings, providing a contemporary design which was quick and easy to install. One of the key benefits of Gebrik is that the slips are cast into the polyurethane panels at the factory, so as well as the lightweight, thermal and aesthetic improvements, the new classrooms are protected from the day to day school environment, requiring little or no long-term maintenance.

"We estimated a time reduction of 33 to 50% for Gebrik when compared with conventional masonry construction."

LEWIS ROGERS
SITE MANAGER OF RAYMOND BROWN

Raymond Brown's site manager, Lewis Rogers, was impressed: "The design solution proved to be quieter, faster and less disruptive. We estimated a time reduction of 33 to 50% for Gebrik when compared with conventional masonry construction, which enabled us to deliver a brick façade for a fraction of the time, cost and work involved, whilst providing a high quality, well-insulated and robust rain screen."

Over 30 such schemes have been completed by Hampshire council so far, delivering stylish revitalised buildings, a greatly improved learning environment and cost-savings for years to come.



A TRIUMPH IN E17

Challenging brief to award-winning result

"We are delighted with the final result - the iridescent, reflective glazed finish of the bricks is spectacular."

JUSTIN LASKIN
ASSOCIATE ARCHITECT OF
POLLARD THOMAS EDWARDS

PROJECT NAME

THE SCENE, CLEVELAND PLACE, WALTHAMSTOW

Designed by architects Pollard Thomas Edwards for developer Hill Partnership, the mixed-use Walthamstow Arcade development featured some 2,000m² of Gebrik insulating brick cladding system, supplied by Aquarian. Despite several design and technical challenges, Aquarian's technical expertise and assiduous support contributed to an award-winning flagship development.

BRICK FINISH

SR13-91

DEVELOPER

Hill Partnership

INSTALLER

LSC Facades

ARCHITECT

Pollard Thomas Edwards

CLIENT

Waltham Forest Council & Islington and Shoreditch Housing Association

Curved, non-90 degree cornering, carefully colour-matched 'metallic' brick finishes - plus the need for rigorous warranty testing - allowed us to show off our design and technical skills on this flagship inner-city project.

The mixed-use development, known as The Scene at Cleveland Place, includes a new nine-screen cinema, restaurants, retail units, apartments and houses around a communal garden – and is key to Waltham Forest Council's revitalisation of the town.

Designed by architects PTE for developer Hill Partnership, it featured approximately 2,000m² of the Gebrik insulating brick cladding system, supplied by Aquarian.

We worked closely with the architects and developer to create a bespoke solution to meet their brief. Our technical team also had to make sure that new homes warranty provider NHBC would include the Gebrik system in its New Homes Warranty.

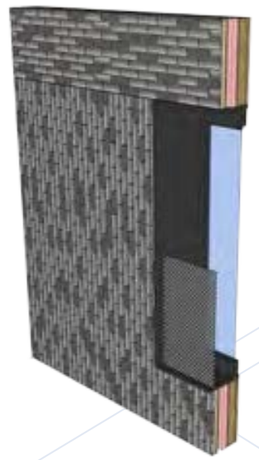
"The curved façades and vertical bond pattern called for in our design, together with a requirement for NHBC approval, meant Gebrik provided the perfect solution," said scheme architect Justin Laskin, "although I hadn't worked with Aquarian before, the process was extremely smooth and we received superb support throughout."

"We were impressed with the remarkable speed of construction of Gebrik, and given our very specific requirements, we are delighted with the final result - the iridescent, reflective glazed finish of the bricks is spectacular."

Matt Wilson from Hill Partnership said: "The structure was designed to be a concrete frame and we always had in mind that a brick cladding system would be used for the façades to deliver the desired combination of finish, performance, speed and cost. We looked at a number of systems but ultimately the support we received from Aquarian and the fact that they worked so closely with NHBC were key to our final specification. Another key issue was getting a good colour match but Aquarian's team worked tirelessly to get the exact finish we were looking for."

"The support we received from Aquarian and the fact that they worked so closely with NHBC were key to our final specification."

MATT WILSON
DEVELOPER, HILL PARTNERSHIP



A PERFECT BLEND

Delivering speed, cleanliness, agility and quality

"Not only was Gebrik faster, but we benefited from it being cleaner, easier to store and move around site."

COLIN WILLIAMS
CONSTRUCTION MANAGER OF
BAM CONSTRUCTION

PROJECT NAME

BUCKS UTC, AYLESBURY, BUCKS

Swift, predictable build times made for a positive experience for all concerned and a hand-over 4 weeks ahead of schedule at this new technical college in the South of England, built by main contractor BAM Construction and installed by Romsey-based specialist cladding contractor LSC Facades, using over 1000m^2 of Aquarian's Gebrik Insulating Brick Cladding System.

BRICK FINISH

SR70-10, SR71-14 & SR71-40

DEVELOPER

BAM Construction

INSTALLER

LSC Facades

ARCHITECT

Bond Bryan Architects

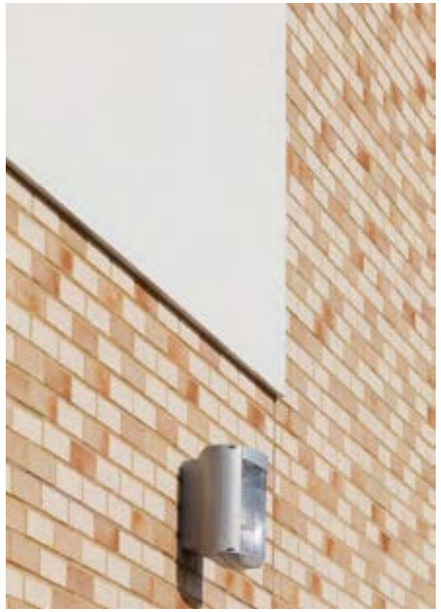
Buckinghamshire University Technical College (UTC) in Aylesbury opened its doors to students for the first time in 2013, having been completed within a tight deadline and with project constraints that demanded an intelligent, modern approach to construction.

As with many education projects, the build-programme at Bucks UTC involved winter working and extremely short timescales. To add to the challenge, BAM's start date was delayed by a further six weeks due to planning issues. Our Gebrik system enabled the contractor to take the external façade off the critical path, so that the building was weather-tight as soon as the steel framing and external sheathing were installed.

To meet Sheffield-based Bond Bryan Architects' brief, 1000m^2 of Gebrik panels and corners were factory-produced in a random mix of the Limeburn, Coppersmelt and Broken Bronze brick slip finishes and installed by LSC Facades within two months. Bond Bryan's Architectural Technologist Dave Martin said: "Initially we considered a monotone concrete finish but the client was keen to see some variation in the façade treatment. Having successfully used Gebrik before, BAM Construction recommended it for this project. It was the first time that we had worked with the system and we were delighted with both the process and the end result."

Gebrik's lightweight, insulating panels and corners replaced the traditional bricklayer's role of having to blend three different brick types from packs on site. LSC Facades' Operations Manager, Mick Godwin, said: "We worked closely with Aquarian to ensure we met the architect's precise aesthetic requirements and BAM's programme deadlines. Gebrik's lightweight panels are easy to handle and quick to install, providing a much cleaner working environment than traditional methods. In our experience, the construction process benefits greatly from the predictability that Gebrik brings – particularly as it can be built in almost all weather conditions."

By using Gebrik, BAM was able to incorporate as many dry construction and off-site processes as possible, providing greater predictability. Colin Williams, Construction Manager at BAM concluded: "Not only was Gebrik faster, but we benefited from it being cleaner, easier to store and move around site. The project was challenging but a positive experience; I have nothing but praise for the Gebrik system."



"We were delighted with both the process and the end result."

DAVE MARTIN
BOND BRYAN ARCHITECTS

REACHING NEW HEIGHTS

Lightweight materials and light-enhancing finishes deliver a beautiful building, on time and under budget

"This project has set the benchmark for our 'Homes For Success' initiative, with a 'wow' factor quality of finish."

ANTONY ARNOLD,
CONSTRUCTION DIRECTOR OF UNITE STUDENTS

PROJECT NAME

ANGEL LANE, LONDON, E15

Designed by architects Hadfield Cawkwell Davidson for developer UNITE Students, this new-build student accommodation project in Stratford, East London presented a range of complex challenges for Aquarian, both in terms of design and delivery. But using a bespoke blend of Aquarian's Gebrik insulating brick cladding systems, the ground-breaking build was completed under budget and on time for the start of the academic year.

BRICK FINISH

RB10-20
& FE01-91 / FE71-91 /FE70-91

DEVELOPER

McAleer & Rushe

INSTALLER

Errigal Contracts

ARCHITECT

Hadfield Cawkwell Davidson

CLIENT

UNITE Students & King's College, London

The Angel Lane project presented a range of challenges, including a delayed start due to late land purchase, a complex architectural specification and access over two A-roads and a live railway line.

Despite these challenges, the landmark 14-storey build went so well that in 2016 the CIOB Project Manager of the Year Award was won by the main contractor's Project Manager Paul Marlow, in part because of his adoption of Gebrik for the scheme. It was also shortlisted for Construction News 'Project of the Year £10M-30M' award.

The entire building, comprising 759 student bedrooms, as well as commercial space, storage and communal areas around an open courtyard, was built in 18 months, with Gebrik installation taking around 7 months to complete. A bespoke blend of Gebrik was installed at a rate of approx. 1000m^2 per month, taking brickwork off the critical path and helping ensure that the completed building was delivered under budget and on schedule.

Having switched from a post-tensioned concrete frame to reinforced in situ, the critical benefit of using Gebrik for Paul and his team was that it eliminated the extensive tower-crane hook time required by a precast solution as it could be installed from scaffold, mast climbers and cradles.

The triangular site was flanked on two sides by the busy A112 & A118 and DLR & Overground railway line, meaning access was severely restricted but with approx. 600m^2 of brick cladding per load, Gebrik's efficient load size reduced the number of deliveries to site by 75% compared with brickwork.

Dominic Trainor, Contracts Director of main contractor McAleer & Rushe, was more than satisfied. "Having thoroughly researched our options, we concluded that Gebrik was an ideal alternative to brickwork, enabling us to meet the requirements of the architect's design despite our initial two month delay to our start date - which was critical to our client as the completion date had to fall in with the start of the academic year. This ground-breaking project was the first time that we had used Gebrik on a project of this scale, so it was essential that Aquarian Cladding was an integral part of the team. Their cooperation ensured that our demanding requirements were met to achieve a stunning building that was delivered on time and on budget."

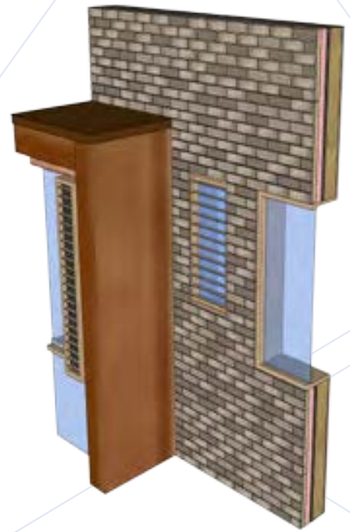
Aquarian was well equipped to ensure the architect's design specifications were realised, sourcing a bright yellow brick finish to create the desired light reflection within the courtyard, whilst the multi-coloured grey finish used elsewhere was factory-blended from three different finishes. Corners were prefabricated to produce non-standard angles, with some finished in contrasting colours to suit the changing façade colour where elevations met.

Gebrik's light weight meant cost savings for the contractor, reducing the structural support required over the building from around 200kg/m^2 of brickwork to around 50kg/m^2 of Gebrik. In addition to lower scaffold and structural support costs, Gebrik also contributed to a reduction in prelim costs, thanks to its impressive speed of installation.

The scheme was also a first for cladding specialist Errigal Contracts. After extensive training and regular site visits from Aquarian, Managing Director Damien Treanor said "Aquarian's technical support and professional approach right from initial concept, through detailed design and post installation inspections aided us in delivery of a highly challenging build. The working relationships established and the high standard of finish achieved on this scheme has led to further opportunities to work together with Aquarian."

"Aquarian ensured that our demanding requirements were met to achieve a stunning building that was delivered on time and on budget."

DOMINIC TRAINOR
CONTRACTS DIRECTOR
OF MCALEER & **RUSHE**

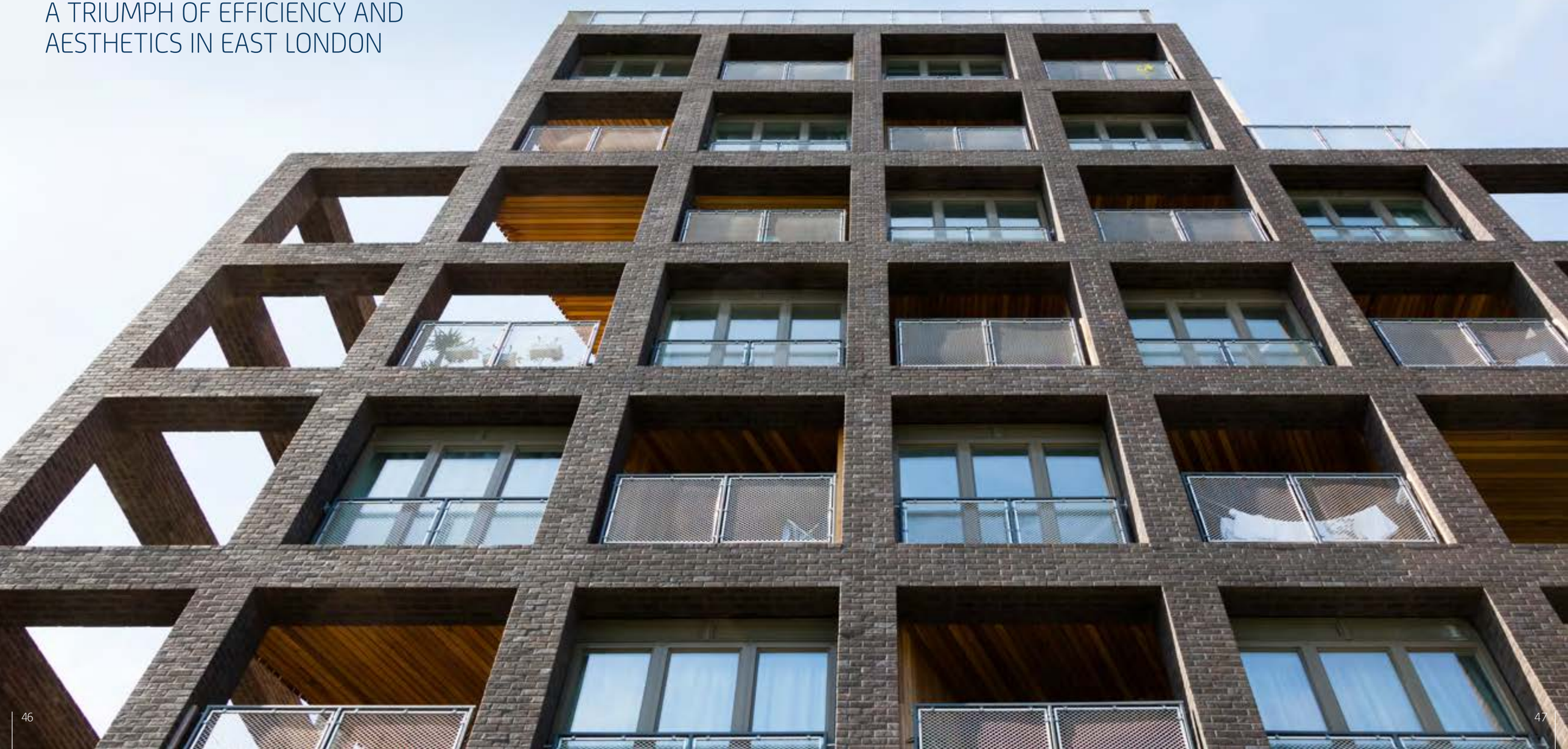


BOLD & BEAUTIFULLY BESPOKE

A TRIUMPH OF EFFICIENCY AND AESTHETICS IN EAST LONDON

"The Cube was created to be a pioneer of architectural possibilities, pushing the boundaries of residential construction and developing homes that are also works of art."

SIMON DE FRIEND
CEO OF REGAL HOMES



PROJECT NAME

THE CUBE, HACKNEY, LONDON

Designed by architects Hawkins\Brown for developer Regal Homes, The Cube is a new-build housing development in Wenlock Road, Hackney, featuring some 1,700m² of Aquarian's Gebrik insulating brick cladding system. The bespoke build – the UK's tallest hybrid cross laminated timber (CLT) structure – was completed within a tight deadline thanks to Gebrik's adaptable, lightweight components, and has gone on to win several industry awards.

BRICK FINISH

SR70-90

DEVELOPER

Regal Homes

INSTALLER

Cladding Design Solutions

ARCHITECT

Hawkins\Brown

Combining real design flare and immense practicality, Gebrik was the perfect fit for this challenging housing development in East London. A mixed use of shared ownership and private housing, a number of apartments had already been secured by Islington and Shoreditch Housing Association, increasing the urgency for completion.

Gebrik's minimal weight and flatpacked, modular design meant space constraints were easily side-stepped by crane-lifting materials directly onto the roof, before loading out onto scaffold bays at each floor level. Components were supplied clearly marked and delivered to a schedule to suit the build sequence as the scaffold was dropped.

A much lighter and more cost-effective solution than precast concrete beams and columns, Gebrik's bespoke, prefabricated components provided a project-specific solution to achieve a lightweight, natural brick finish to clad the lattice façade quickly, without the need for heavy structural support. The entire structure and cladding of the front brick screen, which completes the street elevation and forms the edge of the conservation area, was assembled on site in four months.

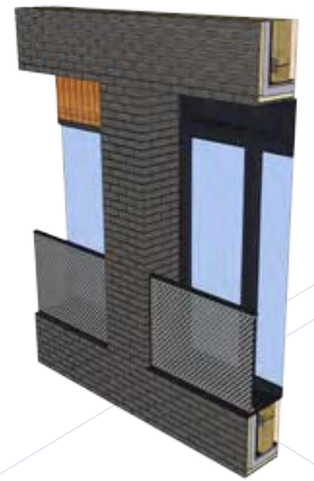
But as with all the most ambitious projects, this was about much more than just getting the job done. The black, textured, multi-coloured brick finish of Gebrik's SR70-90 was used for the first time ever in the UK to form bespoke, prefabricated 3-sided 'U-Elements' and L-Shaped corners, which were used to completely encase the beams and columns. The resulting building is currently the UK's tallest hybrid cross laminated timber (CLT) structure, providing 50 homes over 10 storeys.

The unique brick-clad, lattice screen helps reduce residents' awareness of their neighbours and gives the building a more dynamic appearance from the street. All apartments in the scheme have corner aspects, despite the site being enclosed on two sides.

"The Cube was created to be a pioneer of architectural possibilities, pushing the boundaries of residential construction and developing homes that are also works of art." says Simon de Friend, CEO at Regal Homes. And judging by the number of major industry accolades which The Cube has gone on to win, the project succeeded in achieving every one of the developer's aims. Awards to date include: Off Site Awards 2015 Winner of Winners; winner of Best Hybrid Construction Project; winner of the Celebrating Construction Awards 2015 prize for Innovation; and winner of the Home or Development of Outstanding Architectural Merit category in the London Evening Standard New Homes Awards 2015.

"Our brief was to maximise value by creating something a little bit different," says Alex Smith, Associate at Hawkins\Brown Architects. "Thanks to Gebrik's design flexibility and cost-effective construction, I'm delighted to say we succeeded!"

> "Our brief was to maximise value by creating something a little bit different."
>
> **ALEX SMITH**
> ASSOCIATE AT HAWKINS\BROWN



COLOUR RANGE

Colours to **liven** and **inspire** your next creative project...

RED & ORANGE

Featured Project
Frogmore Street, Bristol

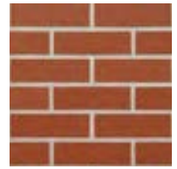

VS70-60


SR71-45


FE00-50


FE40-44


SR10-40


SR10-60


VS71-41


EN20-44


VS81-40


SR70-60


FE01-71

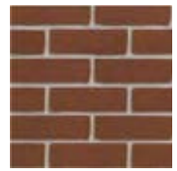

SR71-67


FE71-41


VS71-26


FE01-50


FE16-53


EN20-60


EN21-68


DS01-60


RB71-50


EN71-43


FE01-41


FE01-51


VS71-67

YELLOW, CREAM & WHITE

Featured Project
Wadswick Green, Corsham


RB10-00


SR70-00


FE00-00


FE10-00


FE01-10


RB41-20


VS71-20


VS71-28


VS71-82


VS81-20


FE01-21


FE71-28


EN20-20


EN21-14


EN71-28


VS70-28


FE71-21


VS70-71


EN21-19


EN71-24


FE01-28


SR70-28


FE90-20


VS70-00

GREY, BLUE & BLACK

Featured Project
The Cube, Hackney


VS70-93


VS73-94


SR30-93


SR10-93


SR70-91


SR71-94


RB71-93


VS71-91


VS71-94


SR70-90


FE01-94


FE00-90


SR12-03


FE31-95


SR12-99


RB30-83


FE10-90


HW70-90


DS74-10


DS74-19


SR32-99


VS70-29


VS70-90


VS70-92

BROWN

Featured Project
Lilian Baylis, Lambeth


SR71-23


SR71-60

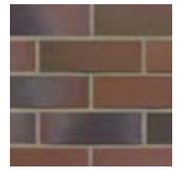

SR32-21


VS71-95


RB71-28


VS70-88


FE31-89


FE12-43


SR32-60


HW00-95


VS70-80


FE16-83


EN20-80


EN71-86


FE00-70


FE00-88


FE71-88


SR10-80


DS00-85


FE01-80

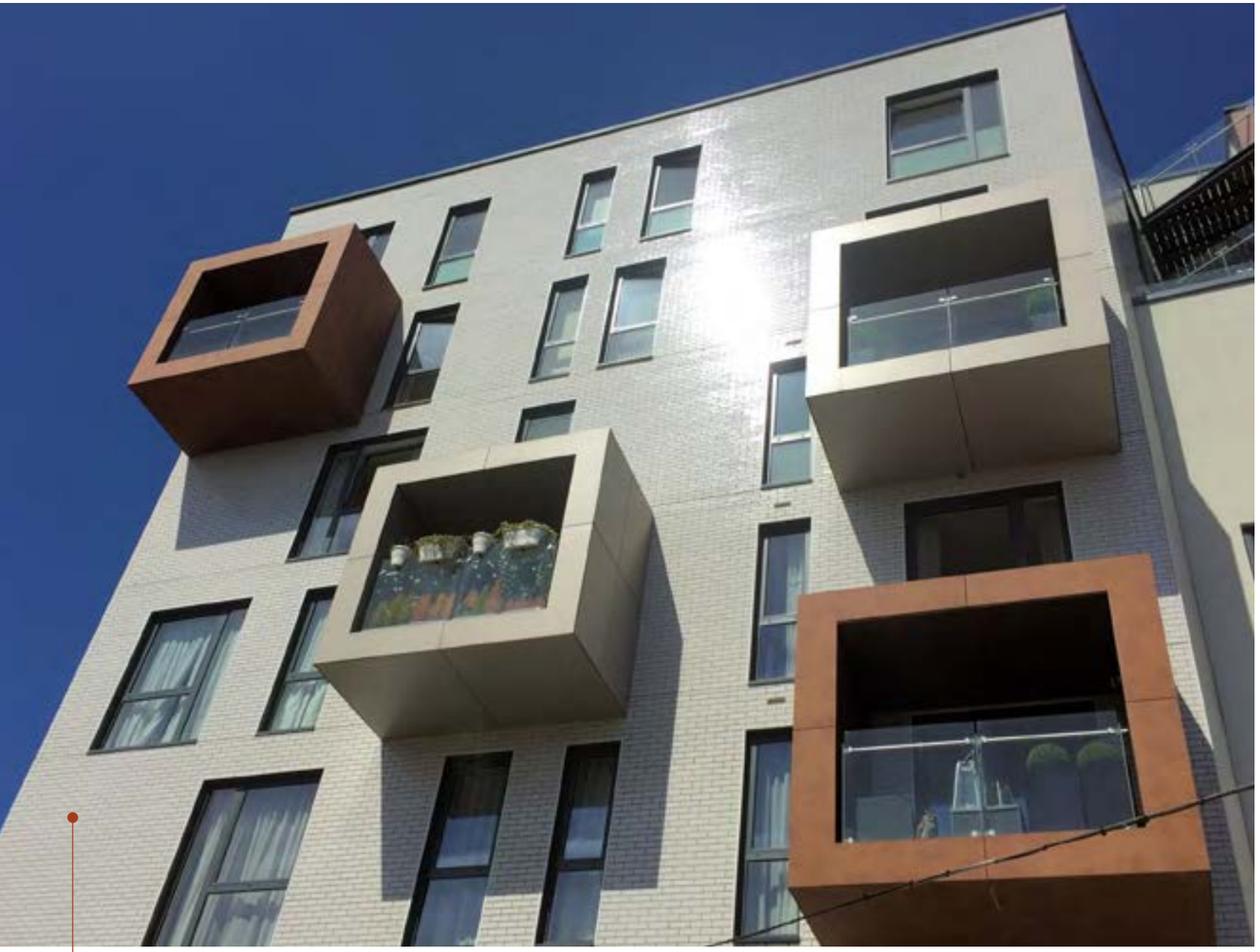

FE10-80


FE71-67


VS71-80


VS71-81

GLAZED & ENGOBED



Featured Project
Prime Place, Greenwich


KI13-900


KI13-920


KI13-950


KI13-560


KI13-590


KI13-270


KI13-930


KI13-970


KI13-630


KI13-660


KI13-370


KI13-990


KI13-470


KI13-450


SR32-92


SR12-00


SR01-90


FE12-89


FE16-43


SR32-91


SR32-82


FE12-68


FE16-95


SR13-91

COMPONENTS

Choose from over 100 standard factory-produced components...

The Gebrik Insulating Brick Cladding System is a factory-produced external walling system consisting of panels, corners, fixings and associated components.

Designed to create a lightweight, natural brick appearance, Gebrik insulates and protects a building from water penetration and is site-applied to buildings constructed of masonry, timber, steel frame or SIPs to clad new buildings or refurbish and protect existing buildings.

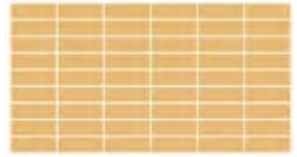
The composite panels and corners comprise of 15-20mm thick frost-resistant, clay brick slips, cast in polyurethane insulation and are supplied in Stretcher, Stack, Flemish or other bond formats. There is a range of approx 700 different brick choices in a variety of finishes and sizes; samples and details of which are available upon request. Alternatively, non-standard brick finishes can be developed subject to quantity and agreement with the manufacturer.

Gebrik's insulating properties will help to significantly improve a building's thermal performance (it is proven to reduce a building's U-value by up to 60%) and keep wall thickness to a minimum. The insulating material is polyurethane (PUR) and uses pentane as its blowing agent and therefore does not release CFC or HCFC agents during manufacture. The PUR has a BREEAM element number of 815320017 and Green Guide rating of A.

Gebrik Panels

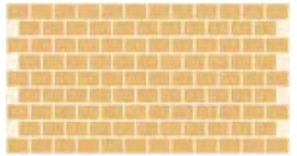
UK Format Panels

UK Type P

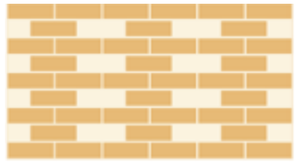


UK Type RP

UK Type FP



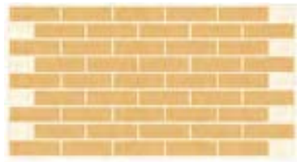
UK Type KP



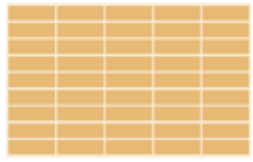
UK Type SP1*

UK Type SP1.5*

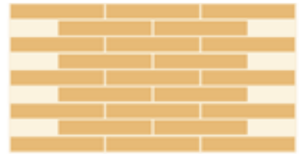
61, R6, WF, R5 Format Panels



61 Type P

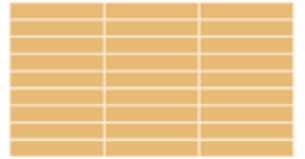


61 Type RP+

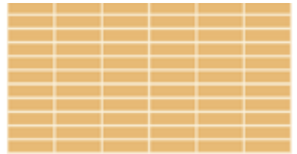


R6 Type P

WF Type P



R6 Type RP



WF Type RP

Brick Slip Dimensions (mm)

UK	215x65
61	240x65/66
R6	440x65
WF	215x50
R5	440x50

Panel Size Dimensions (mm)

UK	1350x675
61(P)	1375x688
61(RP)	1250x688
R6	1350x675
WF	1350x675
R5	1350x675

Panel Weight (kg)

UK	28-32
61	27-30
R6	30
WF	27-31
R5	29

*SP1 & SP1.5 panels are designed to be cut on site and used as infill pieces between full components, eg piers. Additional slips & adhesive are automatically calculated and included within the system.

Fixing requirements to suit building heights are as follows:

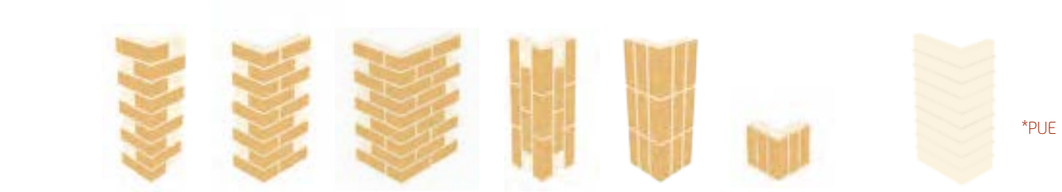
- 9no fixings per panel up to 10m, in 3 rows of 3
- 12no fixings per panel between 10 and 18m, in 3 rows of 4 or 4 columns of 3
- 16no fixings above 18m, in 4 rows of 4

External Corners

Corners are factory-produced by cutting and bonding flat panels with PU glue (coloured to tone with the brick face). Excess glue is removed mechanically at the factory and the corner when viewed from 3m is consistent in colour and flatness. The length of either side is a multiple of full and half bricks up to a maximum of 2 ½ bricks. Note that where bricks are cut, they will naturally reduce slightly in length and will also vary in dimension subject to specific brick type. Care should therefore be taken when producing setting-out drawings and when preparing the substrate on site. Alternatively, corners can be factory- or site-produced by applying brick slips and brick slip 'pistol' returns to L-shaped PU foam.

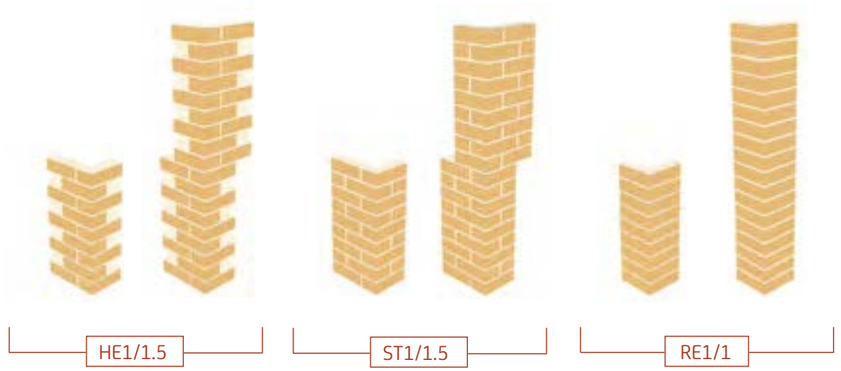
Please contact our Technical Department for project-specific guidance if required.

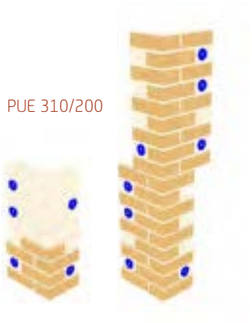
UK Format



*PUE

Type	HE1/1	HE1/1.5	HE1.5/2	HE3-3@3	RE3-3@3	RE3-3@1
Length (mm)	213x213	213x325	325x438	215x215	215x215	215x215
Height (mm)	675	675	675	675	675	215



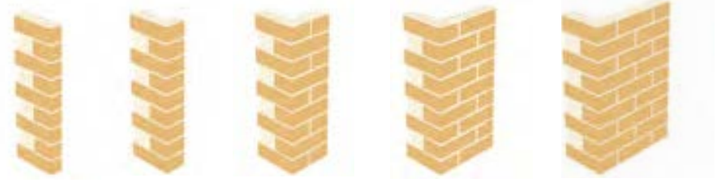


*PUE is available in a variety of lengths to suit brick dimensions

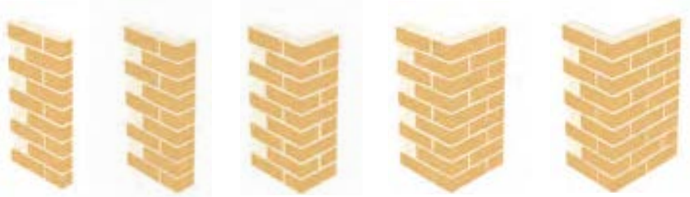
Jambs

Type FE & RE Jambs are produced in the same way as other corners, with leg dimensions typically in multiples of full or half bricks up to a maximum 2 ½ bricks long. One leg should produce a castellation with the adjoining (upper/lower) leg to maintain the bond pattern and the other leg to suit the depth of reveal.

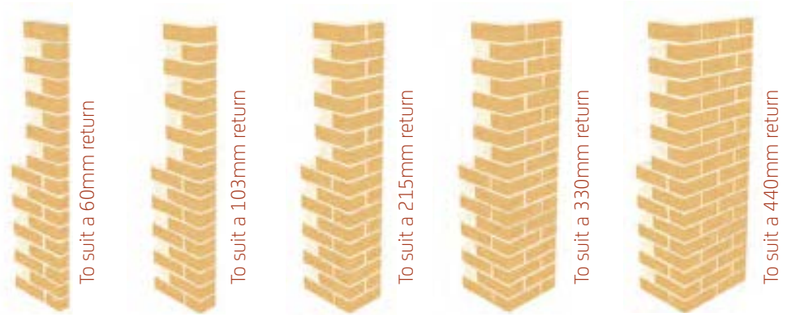
UK Format



Type	FE1/06	FE1/0.5	FE1/1	FE1/1.5	FE1/2
Length (mm)	213x60	213x100	213x213	213x325	213x438
Height (mm)	675	675	675	675	675



Type	FE1.5/06	FE1.5/0.5	FE1.5/1	FE1.5/1.5	FE1.5/2
Length (mm)	325x60	325x100	325x213	325x325	325x438
Height (mm)	675	675	675	675	675



Heads

Type HE & RE Heads are produced in the same way as other corners and typically suit brick coursing. It should be noted that the underside is produced from a multiple of 65mm coursing and the mortar joint is positioned centrally unless requested.

Care should be taken when applying slips to the underside and should be firmly anchored with temporary fixings & washers whilst the adhesive cures. Alternatively, consideration should be given to only using cast slips, e.g. HE3-3R@3 or HE3-3S@3.

UK Format

Type	HE3-1@3	RE3-1@3	RE1/06	RE1/00
Height/Depth (mm)	215x60	215x60	213x60	225x60
Width (mm)	675	675	675	675

Type	HE3-2(100)@3	HE3-2R(100)@3	RE3-2(100)@3	RE1/0.5
Height/Depth (mm)	215x100	215x100	215x100	213x100
Width (mm	675	675	675	675

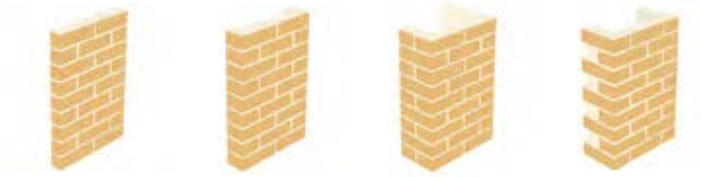
Type	HE3-3@3	HE3-3R@3	HE3-3S@3	RE3-3@3
Height/Depth (mm)	215x215	215x215	215x215	215x215
Width (mm)	675	675	675	675

U Elements

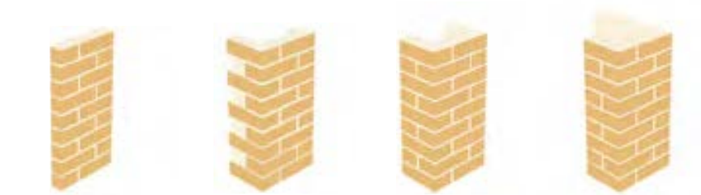
U Elements are produced in the same way as corners, with leg dimensions typically in multiples of full or half bricks to a maximum 2½ bricks long; they can also be produced to specific dimensions if required.

U Elements are ideal for use on soffits and beams. (Please note not all finishes are available in the illustrated U Elements).

UK Format

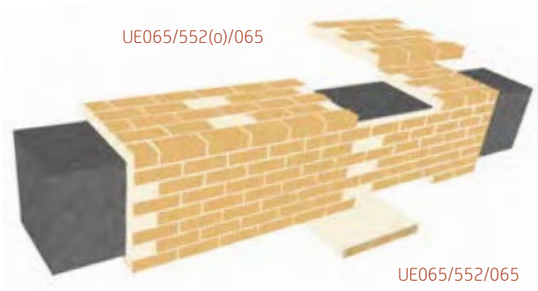


Type	UE06/2/06	UE0.5/2/0.5	UE1/2/1.5	UE(o)1/2/1(o)
Length (mm)	60/430/60	100/430/100	213/430/325	213/430/213
Height (mm)	675	675	675	675



Type	UE06/1.5/06	UE(o)1/1.5/0.5	UE1/1.5/1	UE1/1.5/2.5
Length (mm)	60/315/60	213/315/100	213/315/213	213/315/550
Height (mm)	675	675	675	675

UE065/552(o)/065



UE065/552/065

Fixings & Accessories

DESIGN & INSTALLATION

It is simple to design and build with Gebrik and a standard set of technical details to suit various applications is available to download in .PDF format via our website. Do get in touch if you'd prefer .DWG files instead.

In accordance with the BBA certificate, all system components must be supplied by Isosystems and the application of Gebrik can only be carried out by approved installers, i.e. firms who either:

(1) Employ operatives who have been trained by the Certificate holder or representatives Aquarian Cladding Systems to install the system and who have been issued with appropriate training cards by the Certificate holder or representatives.

(2) Have undertaken to comply with the Certificate holder's application procedure, which contains the requirement for each application team to include at least one member with a training card.

Failure to comply with these instructions may result in the BBA certificate and product insurance being invalidated.

Installation

Gebrik installation is undertaken by a national network of trained and certified specialist cladding contractors. The installation process is fast and straightforward but the manufacturer's instructions must be followed to ensure validity of certification, insurance and, most importantly, the long-term durability of the building.

On-site guidance, an Installation Manual & Checklist, COSHH data sheets and Operations & Maintenance Manual are available on request.

1 **Starter Rail**
The non-loadbearing starter rail acts as a starting level, so great care must be taken when fixing. The datum is determined and the rail typically fixed at max 600mm centres using appropriate fixings.

2 **First Corner**
A corner piece is typically the first element to be installed which, when combined with the starter rail, sets a right angle for installation of the first row of elements.

3 **First Panel**
The first panel is positioned on the starter rail, tightly abutting the corner element. The panel is drilled through and fixed to the substrate (using pre-located fixing positions).

4 **Foaming Chamber**
Expandable PU foam is injected into an abutment chamber using a system-designed pistol-applicator. Special PU-cutters and plugs (supplied as part of the system) will help to maintain a watertight facade.

5 **Application of Brick Slips**
Where elements abut, brick slips are applied on alternate courses to 'stitch' them together and maintain the stretcher bond.

6 **Pointing**
The system must be pointed to conceal all fixings and element abutments. A lime-based Class II mortar is recommended to maintain a traditional brick appearance.

"The Gebrik system is one of the simplest on the market. With the right training, installers will get the hang of it fairly quickly."

Installation checklist

Starter Rail

Purpose: To set datum and to provide a point at which to seal the base of the system, preventing rising moisture ingress

- [ ] 1. Check the rail is set out in accordance with the datum prior to application of any Gebrik
- [ ] 2. Ensure a bead of PU foam is injected along the top edge of the secured rail to prevent water ingress up and behind the system
- [ ] 3. Ensure a bead of PU foam is injected along the internal corner of the secured rail to prevent water ingress between the system and rail
- [ ] 4. Ensure the 5mm joint is removed from the first course of panels so the brick edge sits on the rail
- [ ] 5. Ensure the foam is notched at the back of the first course to the depth of the rail to avoid a 'bell' effect at the base

Securing Components

Purpose: To ensure panels are securely fixed flat to the substrate with no potential for vibration or pull-over of panels over fixing heads in extreme conditions

- [ ] 1. Ensure an appropriate number (min 9no) fixings are positioned within the pre-located fixing positions
- [ ] 2. Ensure fixings are not over-tightened (visible cracking in the joint). If so, secure panel using another fixing position
- [ ] 3. Ensure fixings are not under-tightened (fixing head sits proud). If so, tighten fixing positions to ensure panels and corners are flat
- [ ] 4. Ensure perp joints align as traditional brickwork and are typically positioned half way between the brick immediately above and below

Sealing system

Purpose: To ensure watertightness, prevent heat loss and miminise air leakage. This also avoids movement between panels, which creates cracks in the subsequent mortar joints

- [ ] 1. Ensure chambers are created on site to cut components
- [ ] 2. Ensure chambers are fully filled at every vertical and horizontal abutment (foam will expand to (or out of) the pre-located openings across the top of the panels)
- [ ] 3. Re-check panels and corners for flatness and tighten fixings if necessary
- [ ] 4. Ensure brick face is free of PU staining

Brick slip application. Using cement-based adhesive

Purpose: To maintain traditional brickwork appearance and prevent brick slip delamination

- [ ] 1. Mix sufficient dry mix to appropriate volume of water (typically 9.25l to 25kg dry mix or pro-rata)
- [ ] 2. Ensure smooth paste, leave a few minutes and mix again
- [ ] 3. Work time is approx 3 hours and additional water should not be added once mixed
- [ ] 4. Do not use too much adhesive as the slips will sit proud of the panels and cast shadows in different angles of sunlight
- [ ] 5. Check applied slips for flatness with adjoining Gebrik panels and corners
- [ ] 6. Ensure brick face is free of excess adhesive

Pointing

Purpose: To maintain traditional brickwork appearance and final protection from water ingress

- [ ] 1. Ensure mortar is batched
- [ ] 2. Ensure mortar is protected from subsequent inclement weather and direct sunlight until cured to avoid efflorescence and cracking
- [ ] 3. Ensure joints are fully filled to avoid lime staining
- [ ] 4. Ensure brick face is free of mortar staining

“ We’ve always **gone to extremes** to make sure the systems we supply are built to last.”

Accreditations

Setting your products on fire might sound like bad business. But we go to extremes to make sure the systems we supply are built to last. Before they get to you, our products have been through an assault course of testing: for safety, strength, fire, and the ravages of weather so we know every part and panel is fit for a long future. Gebrik may only be a small part of your overall project, a final touch that adds value, style and durability, but the calm simplicity of the system is backed up by tireless research, meticulous attention to detail and years of development.

BBA
Gebrik has been certified in accordance with BBA certificate number 07/4403.

The certificate confirms:

- application to concrete or clay masonry*, lightweight steel*, structurally insulated panels and timber framing substrates
- a minimum design life of 30 years
- resistant to the passage of moisture
- capable of withstanding minimum wind loads of 2.4kNm^2
- Class 0 fire spread
- an additional layer of ≤120mm insulation can be used behind the system

* Can be used on buildings ≥18m in accordance with BR135 fire report.

FIRE PERFORMANCE
Gebrik has been tested in accordance with BS8414-1&2:2002 and when classified in accordance with Annex A & B of BRE Report (BR135:2003) Fire Performance of External Insulation for Walls of Multi-Storey Buildings has been shown to have met the performance criteria.

Gebrik has also been tested in accordance with EN13501-1:2007 + A1:2009 and classified as follows:

- B – in relation to its reaction to fire behaviour
- S1 – in relation to smoke production
- d0 – in relation to flaming droplets/particles

CWCT
Gebrik has been successfully tested in accordance with the CWCT Standard Test Methods for building envelopes 2005 for application to lightweight steel frame structures and structurally insulated panels to prove:

- air permeability
- watertightness – static pressure, dynamic pressure and hose
- wind resistance – serviceability and safety
- impact resistance to BS8200

DURABILITY
A third party assessment has been made with regards to the long term durability of Gebrik and the conclusion is that with good design practice and attention to detail, good site workmanship and reasonable levels of maintenance, a durability of 60 years should be achieved.

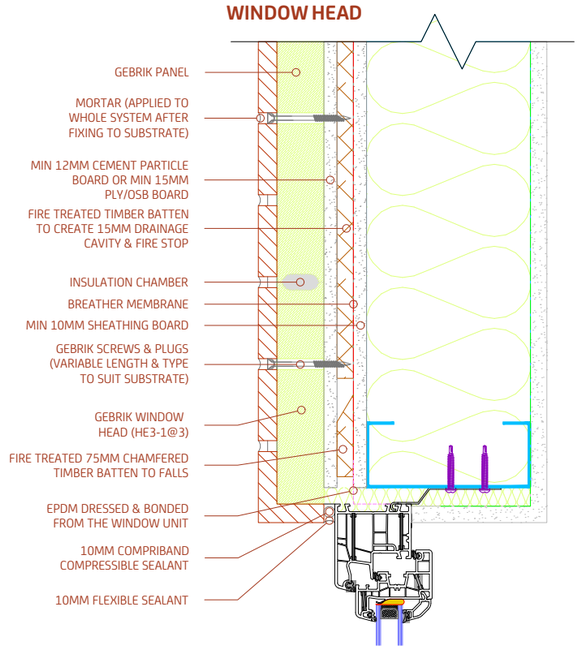
Technical Details

The principle of these details may also be applied to timber frame and SIPS substrates, in accordance with BBA Cert 07/4403.

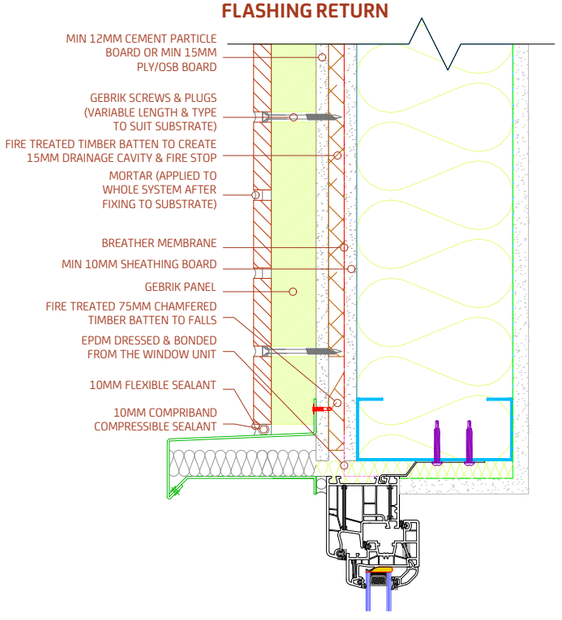
All drawn elements other than those elements directly relating to the Gebrik Panel and/or fixings (including dimensions) are shown as indicative and are not to be used for construction detailing purposes.

Please consult with our technical department when designing buildings over 18m to ensure compliance with our BR135 Reports.

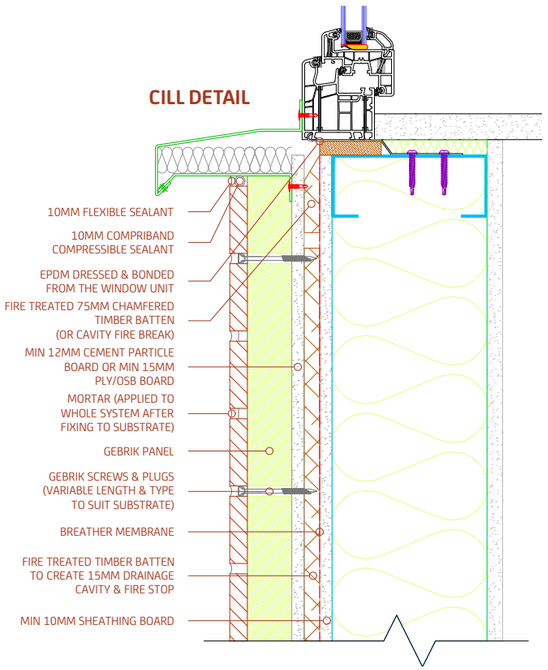
WINDOW HEAD



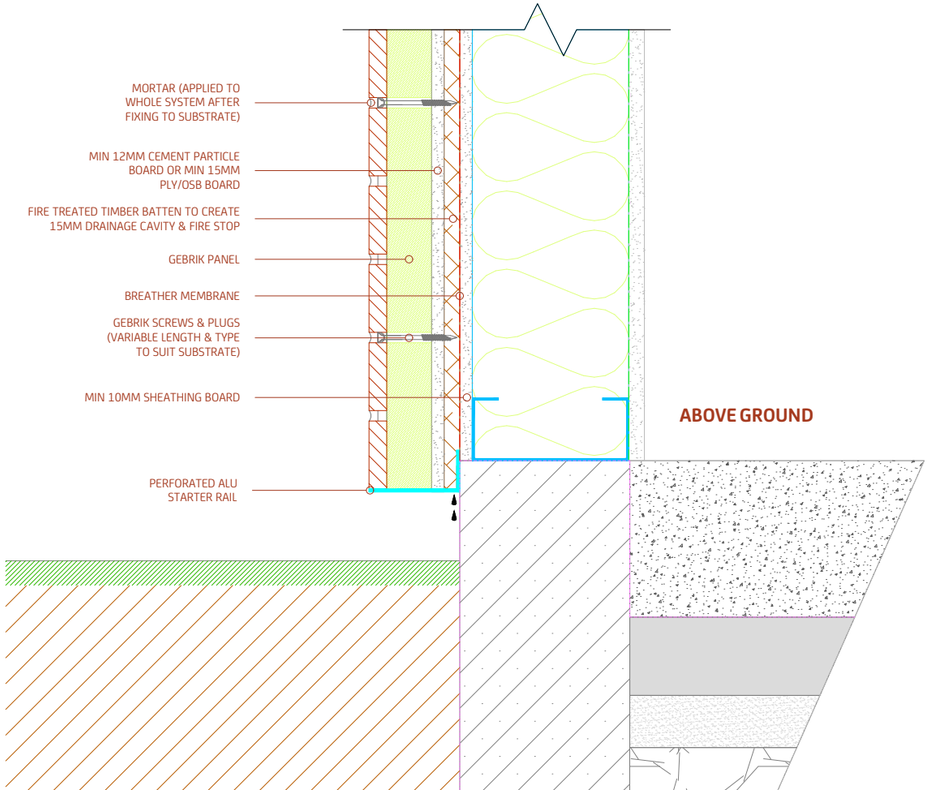
FLASHING RETURN

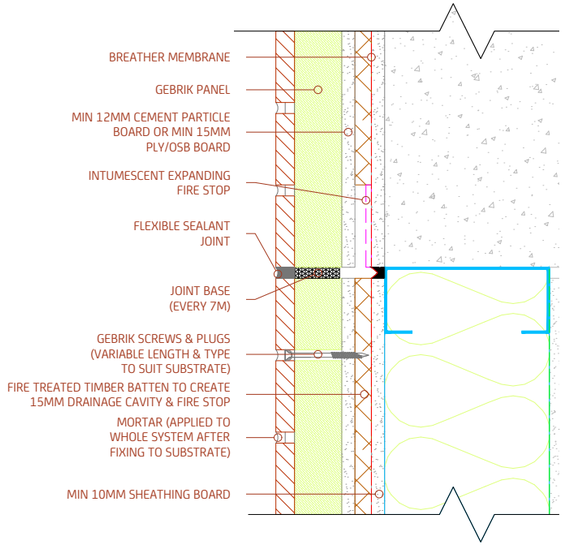


CILL DETAIL

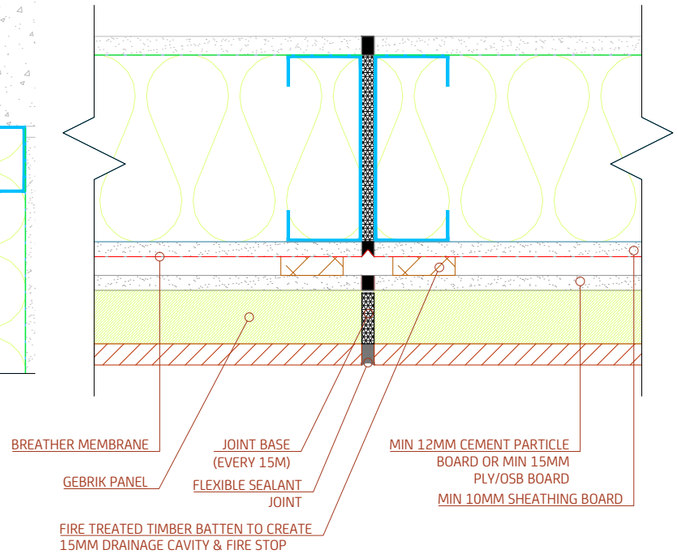


ABOVE GROUND





MOVEMENT JOINTS



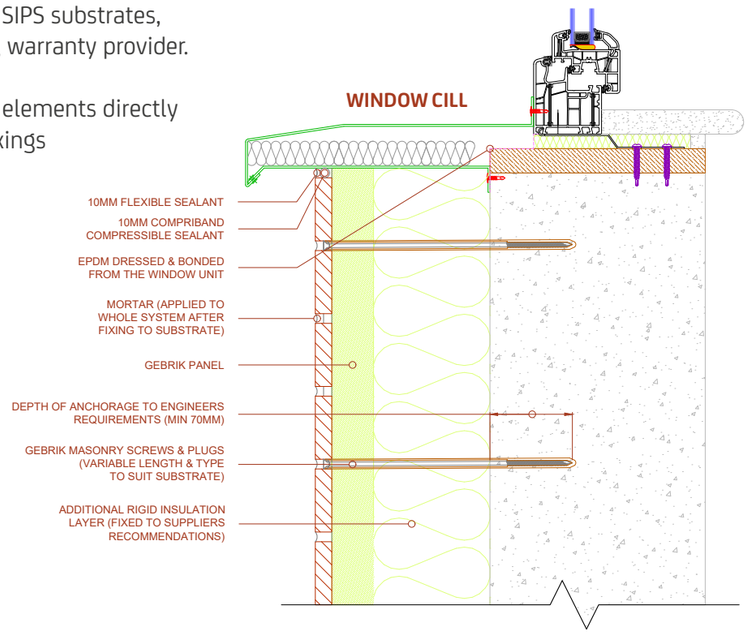
Technical Details

The principle of these details may also be applied to framed light gauge steel, timber and SIPS substrates, subject to approval from the building warranty provider.

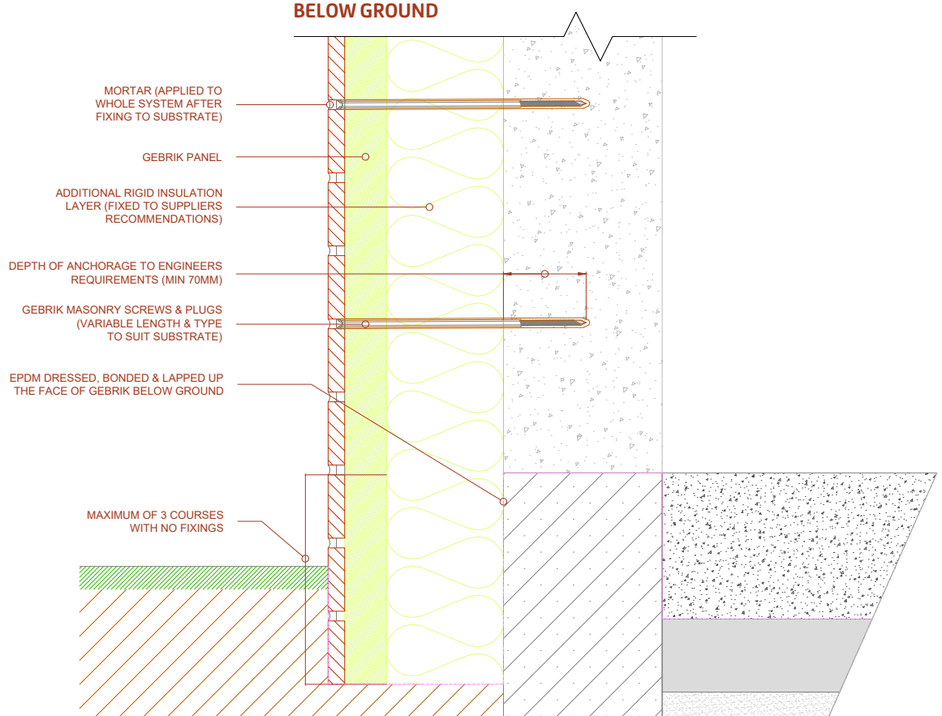
All drawn elements other than those elements directly relating to the Gebrik Panel and/or fixings (including dimensions) are shown as indicative and are not to be used for construction detailing purposes.

Please consult with our technical department when designing buildings over 18m to ensure compliance with our BR135 Reports.

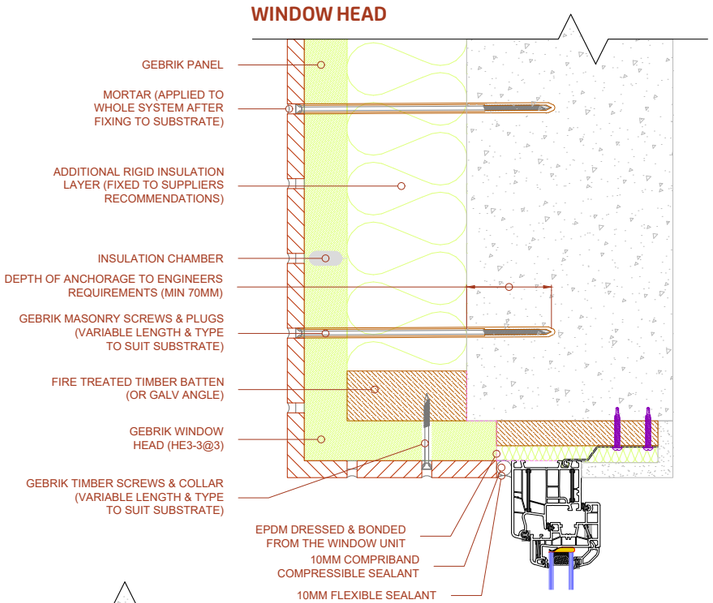
WINDOW CILL



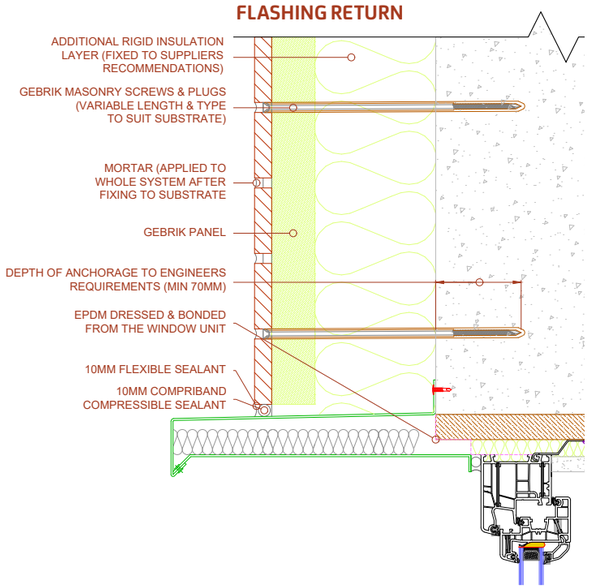
BELOW GROUND



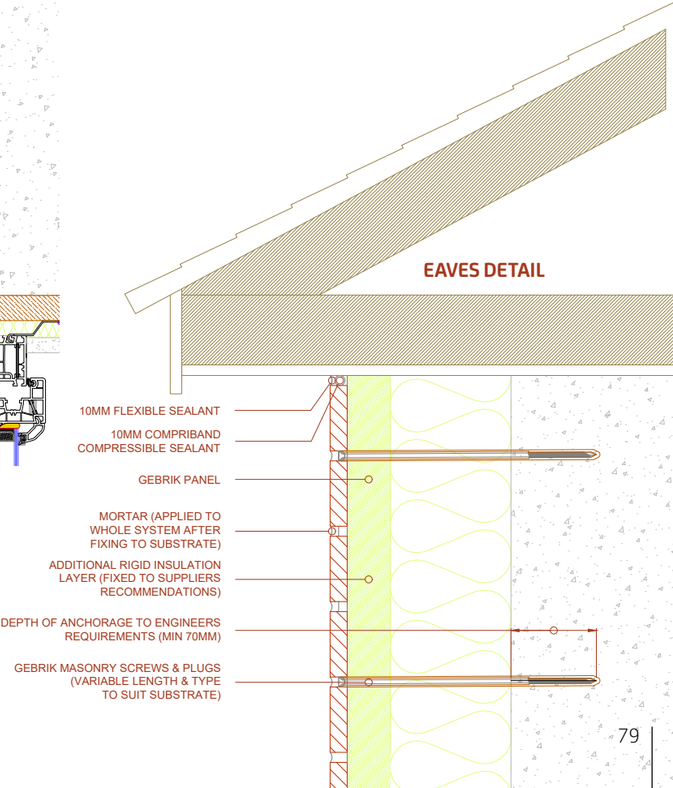
WINDOW HEAD



FLASHING RETURN



EAVES DETAIL



Frequently asked questions

What makes Gebrik unique?

Gebrik is currently the most widely tested and certified off-site manufactured brick cladding system available in the UK. With a range of over 700 different natural, clay brick finishes in most common bond patterns it is possible to cost-effectively clad masonry and framed buildings over 18m whether for new build or refurbishment.

Does Gebrik have BBA certification?

Yes. The certificate number is 07/4403 and there are two Product Sheets - Product Sheet 1 is for application to masonry buildings without a cavity and Product Sheet 2 is for application to light gauge steel, timber and SIP framed buildings with a cavity.

Is Gebrik accepted for use by warranty providers, eg NHBC, Zurich, Premier?

Yes. It is confirmed in the BBA certificate that the system is accepted by NHBC and has been accepted for use by many other warranty providers. Reference should be made by the designer to the certificate and test data and if in doubt, advice should be sought from Aquarian Cladding for project-specific detailing.

What is the maximum height Gebrik can be installed?

There is no specific height limit for the use of Gebrik and it is recommended that the designer refers to the relevant test data for further guidance on windload resistance for exposed locations and fire performance for use above 18 metres.
The system has successfully been tested in accordance with the CWCT Standard Test Methods for building envelopes, 2005, for wind resistance (amongst other test criteria) to withstand ±2400pa positive and negative pressure for serviceability and ±3600pa positive and negative pressure for safety with minimal residual deflection.
The system has been successfully tested for fire performance over 18m and further information is available within these FAQs.

Has Gebrik been fire tested?

The Gebrik system has been tested to BS8414 (Parts 1 & 2) to demonstrate its reaction in fire, ie spread of flame and resistance against collapse when typically used on a multi-storey building over 18m. The resulting BR135 Report confirms that the system can be used on sfs substrates of buildings >18m. The system has also been tested in accordance with EN13501-1:2007+A1:2009 for its reaction to fire and is classified B-s1,d0.
We do not sell the system to provide fire resistance per se therefore it is not typically required to be tested to BS476:Part 21: 1987 Clause 8. However light gauge steel framing systems, lined with calcium cement sheathing boards, such as those used in our fire test (ie Y-Wall), can be proven to provide 2 hours resistance when tested to the BS476 test. When combined with our BR135 report it is therefore reasonable to expect that as Gebrik will not contribute to fire, a minimum 2 hours resistance should be expected.
Gebrik has been accepted by warranty providers, building control and clients for use on numerous buildings >18m and to conform with the current BBA certificate 07/4403, it is imperative that the build-up tested is adhered to for the BBA certificate to be valid.

What is the durability of Gebrik?

Gebrik has been successfully tested for accelerated aging up to 30 years (the longest accelerated age testing possible) and, as confirmed in the BBA certificate 07/4403, has an expected minimum design life of 30 years. A separate independent study has also been carried out and states that with good design practice of attention to the details, good site workmanship and reasonable levels of maintenance a durability of 60 years should be achieved.

Does the substrate require a cavity when using Gebrik?

The oldest building that Gebrik has been used on (in Belgium) was built using timber frame without a cavity and after more than 30 years there is still no evidence of water ingress or interstitial condensation. There are also numerous projects in the UK where Gebrik has been accepted and warranted for use without a cavity.
The current BBA certification is based on application to masonry without a cavity and to framed structures with a cavity. As part of our continuous product development programme the intention is to obtain an additional product sheet within our existing BBA certification for application without a cavity on the basis that the CWCT weathertightness test successfully demonstrates that Gebrik will withstand water ingress and a cavity is not necessarily required.
However certain warranty providers, e.g. NHBC and Premier currently insist on the inclusion of a cavity to allow drainage in the event of water ingress from poor detailing/installation at interfaces or in the event of interstitial condensation. The designer should therefore satisfy themselves that the system and preferred method of wall construction are acceptable to the project-specific warranty provider.

Is Gebrik mechanically fixed?

Gebrik panels and corners are supplied with pre-located fixing positions and tested & certified fixings (with collars or plugs as appropriate). The fixings are used to screw panels and corners to a solid substrate, e.g. clay/concrete masonry or exterior grade sheathing board with a minimum of 9no fixings per panel and 5no per corner. The quantity of fixings should increase subject to pull-out resistance of the substrate and anticipated applied windloads.

Will the brick slips fall off?

Due to historical instances throughout the UK of adhesive failure of site-applied brick slips, there is understandable concern that brick slips within the Gebrik system will delaminate. To produce Gebrik panels and corners, slips are cast in polyurethane (and sand) at the factory so that what is supplied to site is produced in a controlled environment under strict quality control. Therefore less than 10% of slips are site-applied with a cement-based adhesive that simply requires water to be added. The adhesive and site-applied aspect is included within the testing and is therefore also certified within the BBA Product Sheets 1 and 2. With good site control and application in accordance with the Installation Manual there is no more risk of slips delaminating than of brickwork failing due to poor workmanship.

Brickwork Dimensions 215mm Bricks

HORIZONTAL

Number of Bricks	CO + Joint	CO (Coordinating size)	CO - Joint	Number of Bricks	CO + Joint	CO (Coordinating size)	CO - Joint	Number of Bricks	CO + Joint	CO (Coordinating size)	CO - Joint
1	235	225	215	**35**	7885	7875	7865	**69**	15535	15525	15515
2	460	450	440	**36**	8110	8100	8090	**70**	15760	15750	15740
3	685	675	665	**37**	8335	8325	8315	**71**	15985	15975	15965
4	910	900	890	**38**	8560	8550	8540	**72**	16210	16200	16190
5	1135	1125	1115	**39**	8785	8775	8765	**73**	16435	16425	16415
6	1360	1350	1340	**40**	9010	9000	8990	**74**	16660	16650	16640
7	1585	1575	1565	**41**	9235	9225	9215	**75**	16885	16875	16865
8	1810	1800	1790	**42**	9460	9450	9440	**76**	17110	17100	17090
9	2035	2025	2015	**43**	9685	9675	9665	**77**	17335	17325	17315
10	2260	2250	2240	**44**	9910	9900	9890	**78**	17560	17550	17560
11	2485	2475	2465	**45**	10135	10125	10115	**79**	17785	17775	17765
12	2710	2700	2690	**46**	10360	10350	10340	**80**	18010	18000	17990
13	2935	2925	2915	**47**	10585	10575	10565	**81**	18235	18225	18215
14	3160	3150	3140	**48**	10810	10800	10790	**82**	18460	18450	18440
15	3385	3375	3365	**49**	11035	11025	11015	**83**	18685	18675	18665
16	3610	3600	3590	**50**	11260	11250	11240	**84**	18910	18900	18890
17	3835	3825	3815	**51**	11485	11475	11465	**85**	19135	19125	19115
18	4060	4050	4040	**52**	11710	11700	11690	**86**	19360	19350	19340
19	4285	4275	4265	**53**	11935	11925	11915	**87**	19585	19575	19565
20	4510	4500	4490	**54**	12160	12150	12140	**88**	19810	19800	19790
21	4735	4725	4715	**55**	12385	12375	12365	**89**	20035	20025	20015
22	4960	4950	4940	**56**	12610	12600	12590	**90**	20260	20250	20240
23	5185	5175	5165	**57**	12835	12825	12815	**91**	20485	20250	20465
24	5410	5400	5390	**58**	13060	13050	13040	**92**	20710	20700	20690
25	5635	5625	5615	**59**	13285	13275	13265	**93**	20935	20925	20915
26	5860	5850	5840	**60**	13510	13500	13490	**94**	21160	21150	21140
27	6085	6075	6065	**61**	13735	13725	13715	**95**	21385	21375	21365
28	6310	6300	6290	**62**	13960	13950	13940	**96**	21610	21600	21590
29	6535	6525	6515	**63**	14185	14175	14165	**97**	21835	21825	21815
30	6760	6750	6740	**64**	14410	14400	14390	**98**	22060	22050	22040
31	6985	6975	6965	**65**	14635	14625	14615	**99**	22285	22275	22265
32	7210	7200	7190	**66**	14860	14850	14840	**100**	22510	22500	22490
33	7435	7425	7415	**67**	15085	15075	15065				
34	7660	7650	7640	**68**	15310	15300	15290				

Brickwork Dimensions 65mm Bricks

VERTICAL

Course & Joint		**17**	1275	**34**	2550
1	75	**18**	1350	**35**	2625
2	150	**19**	1425	**36**	2700
3	225	**20**	1500	**37**	2775
4	300	**21**	1575	**38**	2850
5	375	**22**	1650	**39**	2925
6	450	**23**	1725	**40**	3000
7	525	**24**	1800	**41**	2075
8	600	**25**	1875	**42**	3150
9	675	**26**	1950	**43**	3225
10	750	**27**	2025	**44**	3300
11	825	**28**	2100	**45**	3375
12	900	**29**	2175	**46**	3450
13	975	**30**	2250	**47**	3525
14	1050	**31**	2325	**48**	3600
15	1125	**32**	2400	**49**	3675
16	1200	**33**	2475	**50**	3750

Size matters

We recommend that these brick dimension tables are used during the design stage to avoid cut bricks. The tables are based on the British Standard Co-ordinating size of 225mm x 112.5 x 75mm, which includes 10mm joints (this size being determined by the term CO). Please consult our Technical Support team for guidance on bricks with other dimensions.

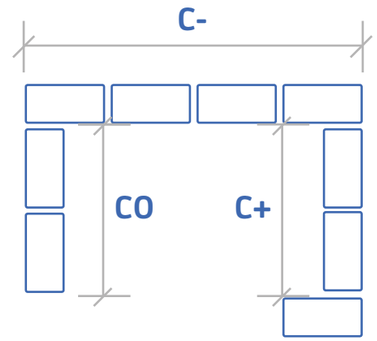
Find your fit

Though the Gebrik system can be adapted on site to suit a facade's dimensions, the system is far more time- and cost-effective if the elevations are designed to suit full brick dimensions, which will reduce wastage and labour.

Note that where bricks are cut to produced corners, they will naturally reduce slightly in length and will also vary in dimension subject to specific brick type. Care should therefore be taken when producing setting-out drawings and when preparing the substrate on site.

Metric

Coordinating Dimensions



C- : C minus joint
CO : Coordinating size
C+ : C plus joint

“If you always do what you always did, you will always get what you always got”

ALBERT EINSTEIN

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