Gebrik Insulating Brick Cladding System

AQUARIAN CLADDING SYSTEMS

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About Aquarian

AQUARIAN
CLADDING SYSTEMS

Aquarian Cladding Systems is one of the UK's leading suppliers of rainscreen cladding solutions, with a range of products and systems to meet the needs of both new and refurbishment projects.

We have a wealth of experience working with developers, architects and contractors, and our ongoing investment in product development ensures that we regularly introduce new solutions to meet the changing needs of our clients.

Our cladding systems are proven in projects across a wide range of sectors, from residential to retail, in both the public and private sector. Whether a project requires a retrofit solution or is adopting a modern method of construction, our solutions combine traditional aesthetics with the benefits of modern, high quality cladding systems – delivering a cost-effective and durable facade throughout a building's lifetime.

In the UK, we are the sole distributor for the Gebrik Insulating Brick Cladding System, a system that has been proven in projects throughout Europe since 1982 and which contains in excess of 500 natural clay brick finishes. In addition, we offer the Bel-Stone Insulating Stone Cladding, Gecaro Terracotta Tile Cladding and CGL Metal Rainscreen Cladding systems. Each of these unique cladding systems has been designed and developed to exacting quality standards and provides contemporary solutions to clients, architects and contractors.

The quality of our product range is matched by our absolute commitment to service and support. From initial design advice through commercial guidance to on-site support, our technical team is available to provide advice and guidance at every stage of the process, ensuring our clients' visions for their buildings are realised – not just in terms of value but also aesthetically and technically.

Gebrik Benefits

Traditional	With over 500 different clay brick finishes in a range of sizes complete with stretcher, stack bond or Flemish bond options, Gebrik provides an authentic brick finish.	*For the full range of formats, see components on **Page 8**. For finishes, see **Page 12** and our comprehensive colour chart insert.*
Durable	Acting as a durable, waterproof overcladding, Gebrik is a robust, watertight external cladding system that can be applied to new and existing buildings.	*For examples of Gebrik in work, see **Pages 2 to 7**.*
Thermal	Gebrik's exceptional thermal performance delivers low U values with a minimal wall thickness (just 60mm thick composite panels including insulation).	*For full technical drawings, details and indicative thermal calculations, see **Pages 10 and 11**.*
Predictable	Gebrik offers greatly improved predictability and control during the build programme. Factory-produced panels and corners can be installed in all weather conditions, provided it is safe to do so. It is possible to install the system from mechanical access equipment (for example, scissor lifts), taking brickwork off the critical path.	*For details of the installation process, see **Page 9**.*
Cost	The lightweight, non-loadbearing Gebrik Cladding system may be fixed directly to the substrate of multi storey buildings. Its simplicity and predictability of construction will reduce prelims, and its light weight eliminates the need for wind posts and brick reinforcements – which can contribute to the reduction of foundation, piling and structural frame costs. Further cost benefits accrue as a result of a reduction in scaffolding, waste disposal, vehicular access and storage requirements, with up to 700m^2 of Gebrik components delivered on one vehicle.	*For system components, see **Page 8**.*
Accreditation	Gebrik has full third party accreditation for a minimum design life of 30 years (BBA certificate number 07/4403) and has been tested to determine its weathertightness for building envelopes in accordance with CWCT Standard Test Methods, 2005. The system has also been successfully fire tested in accordance with EN13501-1:2007+A1:2009, resulting in a classification of B-s1,d0.	*For full details, see **Page 13**.*

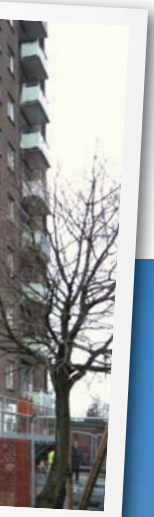
Refurbishment Projects

Local Authority Sheltered Housing
Project: Hillsbarton, Bristol
Client: Bristol City Council
Cladding Contractor: Rateavon

We wanted a system that would improve the aesthetics of the buildings, deliver energy efficiencies and cause minimal disruption during the refurbishment process. Gebrik was by far the best solution.

Paul Jermy, Bristol City Council Client

ALMO Tower Blocks
Project: Harpenmead Point, Cricklewood
Client: Barnet Homes
Architect: Hadley Design Associates
Contractor: Apollo Property Services
Cladding Contractor: Repex



Education
Project: Quilley School, Eastleigh
Client: Hampshire County Council
Architect: HCC Property Services
Contractor: Morgan Sindall
Cladding Contractor: Walltec

The whole block has been completely transformed, such that staff and students are now working in a modern, safe, energy and maintenance efficient building. The whole refurbishment process was worth the minimal disruption that was caused.

Mark Westlake,
School Business Manager,
Quilley School of Engineering

Private Housing
Project: Lynne Court, London
Client: Mr D Lazarus
Architect: Smith Lam Architects
Cladding Contractor: Rateavon

New Build Projects

Education
Project: Trent Vale REACH BSF School
Architect: Aedas
Contractor: Balfour Beatty
Cladding Contractor: Horbury Building Systems

Leisure Buildings
Project: Knowsley Sports Park
Client: Knowsley Council
Architect: Broadway Malyan
Contractor: Balfour Beatty
Cladding Contractor: Unique Roofing

Student Accommodation
Project: Woodland Court, London
Client: Unite
Architect: Hadfield Cawkwell Davidson
Contractor: RG Group
Cladding Contractor: Metclad

From the professional advice our design and installation teams receive to the management of our deliveries to site, the levels of service and support that we receive from Aquarian Cladding are consistently first class.

Marvin Village
Metclad, Installer

Private Apartments
Project: Seward St, London
Developer: Mount Anvil
Architect: Formation Architects
Cladding Contractor: OCL Facades

New Build Project – Reading University

Student Accommodation
Client: Reading University
Architect: Stride Treglown
Contractor: Morgan Sindall
Cladding Contractor: ECL Contracts

Gebrik provided the ideal solution for an extremely challenging project. It provides an equivalent appearance to traditional brickwork and its range of finishes and flexibility of application were key to achieving our design criteria.

Stephen Wilson, Stride Treglown Architects

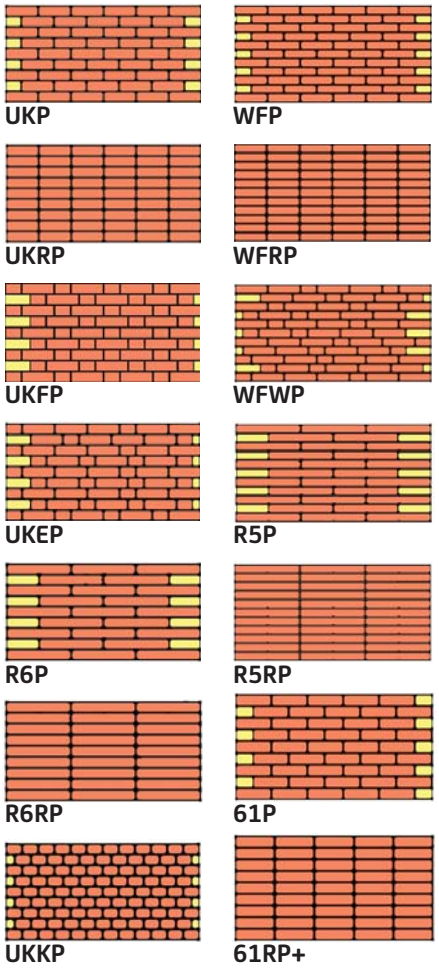
Components

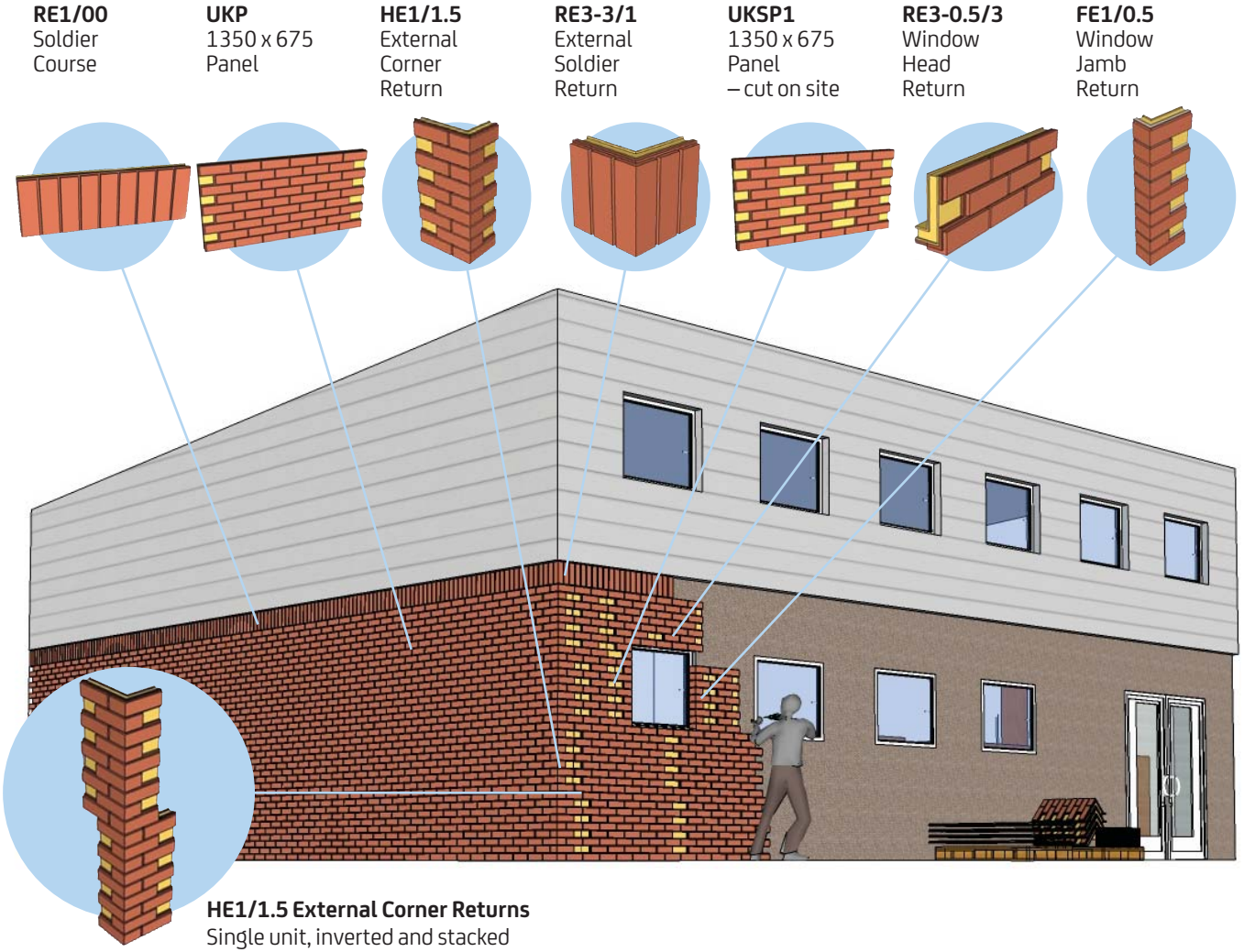
Gebrik is available in a variety of brick slips sizes and bond patterns as per the table on the right and illustrations below.

	UK	61	R6	WF	R5
Brick Slip Dimensions (mm)	215 x 65	240 x 65/66	440 x 65	215 x 50	440 x 50
Panel Size Dimensions (mm)	1350 x 675	1375 x 688	1350 x 675	1350 x 675	1350 x 675
Panel Weight (kg)	28-32	27-30	30	27-31	29

All panels are supplied 60mm and joint sizes are nominal 10mm

Corners for external returns and head or jamb reveals are factory-produced and available in lengths based on full and half brick dimensions up to a maximum of 540mm on either leg.





HE1/1.5 External Corner Returns
Single unit, inverted and stacked

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 and Maintenance Manual are available on request.

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 600mm centres using appropriate fixings.

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.

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).

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

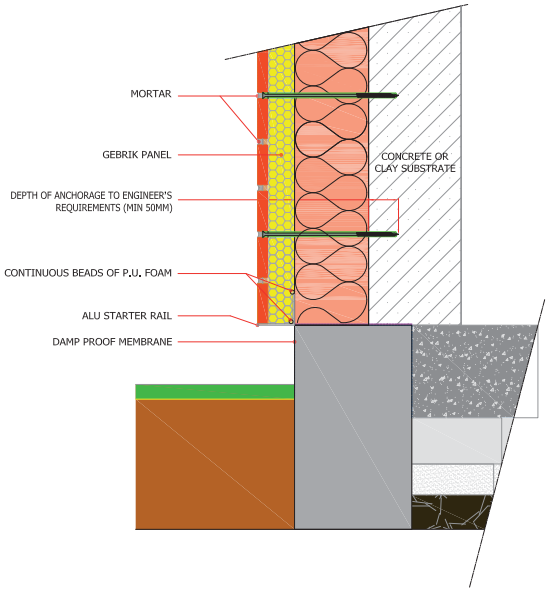
Application of Brick Slips
Where elements abut, brick slips are applied on alternate courses to 'stitch' them together and maintain the stretcher bond.

Pointing
The whole 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.

Technical Drawings

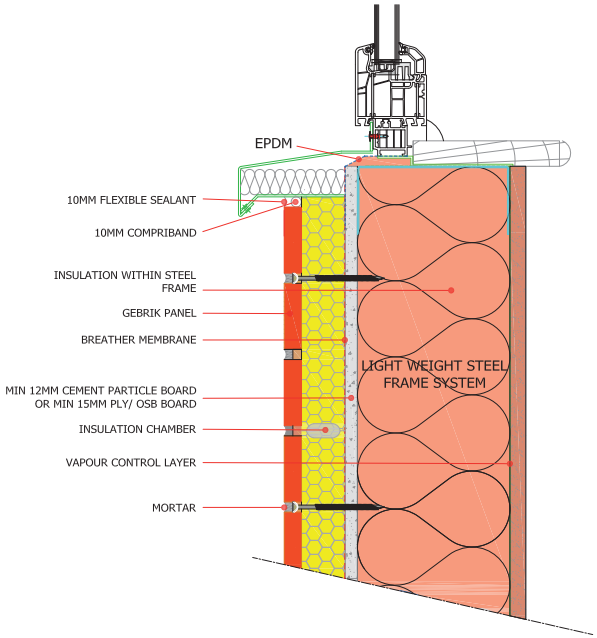
Having been independently tested throughout Europe, Gebrik is proven to withstand the passage of moisture so it may be used as a water barrier. However, certain insurers may insist on a cavity being included within the overall wall construction.

Solid Wall Construction



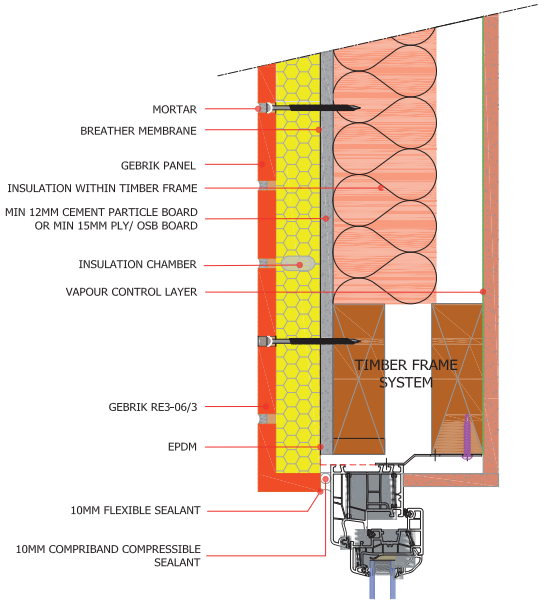
Gebrik Ground Detail onto Concrete or Clay Masonry

This indicative construction will achieve a U value of 0.164W/m^{2}K



Gebrik Cill Detail onto Light Gauge Steel Framing

This indicative construction will achieve a U value of 0.288W/m^{2}K



Gebrik Head Detail onto Timber Framing

This indicative construction will achieve a U value of 0.251W/m^{2}K

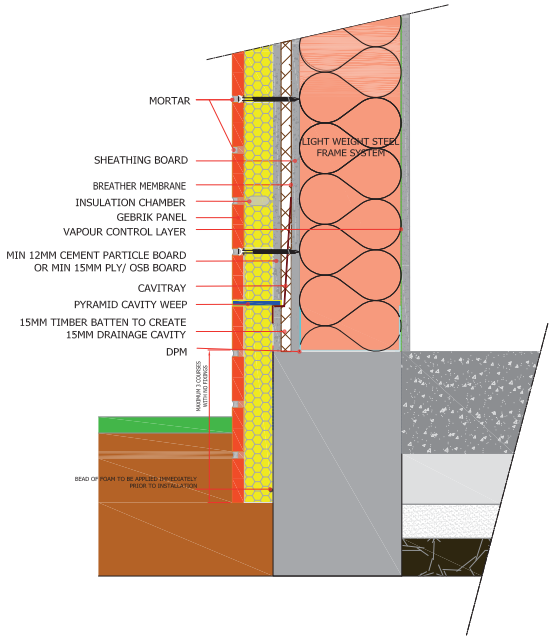
Impact Resistance

Gebrik has been tested for soft and hard body impact resistance in accordance with BS8200. The system successfully withstood 500Nm of soft body energies and 22Nm of hard body energies with no damage observed.

Fixings

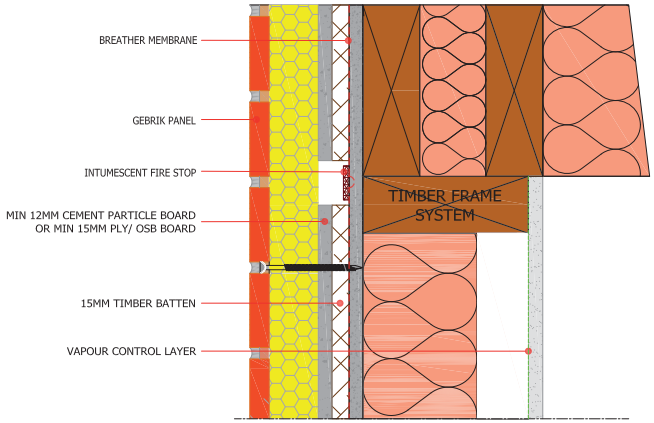
Gebrik has been tested on to clay and concrete masonry, steel framing and SIPs framing and test data is available upon request. The system will withstand positive and negative windloads in excess of 2.4kNm^{-2} and the following quantities of fixings should be used:
9no fixings per panel <10m
12no fixings per panel >10m but <18m
16no fixings per panel >18m

Cavity Wall Construction



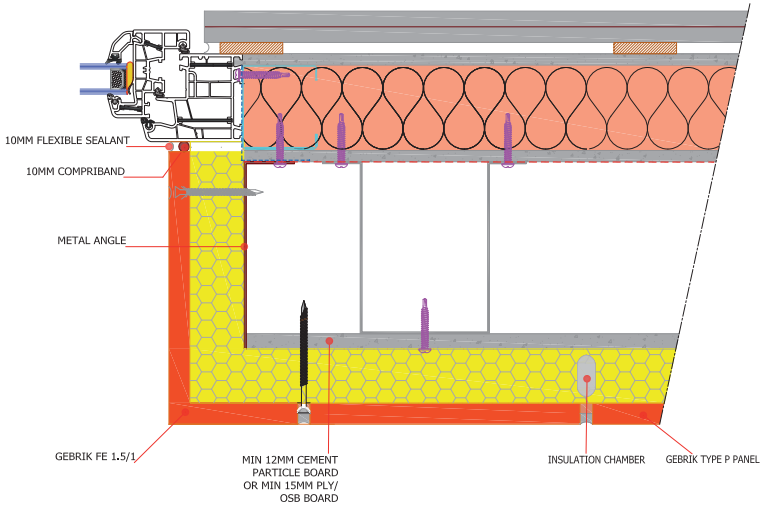
Gebrik Ground Detail onto Light Gauge Steel Framing (below ground)

This indicative construction will achieve a U value of 0.269W/m^{2}K



Gebrik Fire Break Detail onto Timber Framing

This indicative construction will achieve a U value of 0.237W/m^{2}K



Gebrik 215mm Deep Jamb Detail onto SIPs

This indicative construction will achieve a U value of 0.281W/m^{2}K

Finishes and Formats

From rich reds, warm buffs and contemporary blues, whites and blacks in natural or glazed finishes, to traditional yellow and red multi stocks and hand-mades, the Gebrik range includes an extensive selection of natural clay brick colours, textures, finishes and formats – in stretcher, stack and Flemish bond.

A selection of the wide range of finishes and formats is represented here – please visit our website at **www.aquariancladding.co.uk/Gebrik-finishes** to see the full range, or contact us for a copy of the comprehensive Gebrik Finishes and Formats brochure.

Accreditations

BBA

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

- application to concrete or clay masonry substrates, lightweight steel frame structures* and structurally insulated panels*
- 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*

** Amendment to BBA certificate commenced in 2011*

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

Fire Performance

Gebrik has been tested without fire barriers in accordance with BS8414-1:2002 and when classified in accordance with Annex A 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

Durability

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

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