

Metal

Cladding & Coping

Systems



Gladius





Awesome Architecture

Overview

Gladius aluminium rainscreen cladding system GL1 and coping system GLC1 designed for use on buildings with any type of frame construction, at any location and height. System offers large format, monolithic looking cladding panels covering the entire floor height, giving developers, architects, specifiers and contractors endless possibilities in creating distinct façade designs when used in combination with brickwork, glazing and stone and other materials.

Panel joints can be easily coordinated with common designs of windows, doors and curtain walling offering consistent look of building facades. Flat looking panels can be used with various projected features such as cornices, columns, recesses etc. to fulfil broad architectural ideas.

Aluminium Cladding system

Cladding system GL1 comprises of pressed panels manufactured from 3mm thick aluminium with internal reinforcement profiles fixed to an aluminium sub-frame with combination of concealed self-locking brackets and screws. Sub-frame itself is mounted onto the primary building frame.

One of key features offered by GL1 is two different types of support sub-frame giving architects and designers greater choice of fixing details without limitations on backing wall types

Aluminium Coping Systems

Coping system GLC1 comprises 3mm aluminium self-locking cope panels mounted onto 2-way adjustable brackets with rubber strip gaskets. System can be fixed to literally any suitable wall types providing cost effective, watertight and aesthetically pleasing detail to the top of walls

Fire Barriers and Membranes

Separate attention is given to details of the cavity fire barriers and sealing membranes to ensure correct fire stopping and water/air tightness performance of overall façade.

We recommend to use either Fischer or Siderise firebreaks, both of which were tested with aluminium cladding and have specific details for fire protection of cavities with cassette cladding type.

Finishes

Cladding panels available with polyester powder coated finish in any standard RAL colour, special metallic, anodic and textured finishes, as well in brushed aluminium and with customized perforated effects.

Testing

Cladding System GL1 is tested to CWCT “Standard for Systemised Building Envelopes 2005” Sequence B (updated in 2020) and offers

- Water and Air tightness up to 600Pa
- Wind Loads up to 3600Pa
- Impact Resistance Cat. B class 2



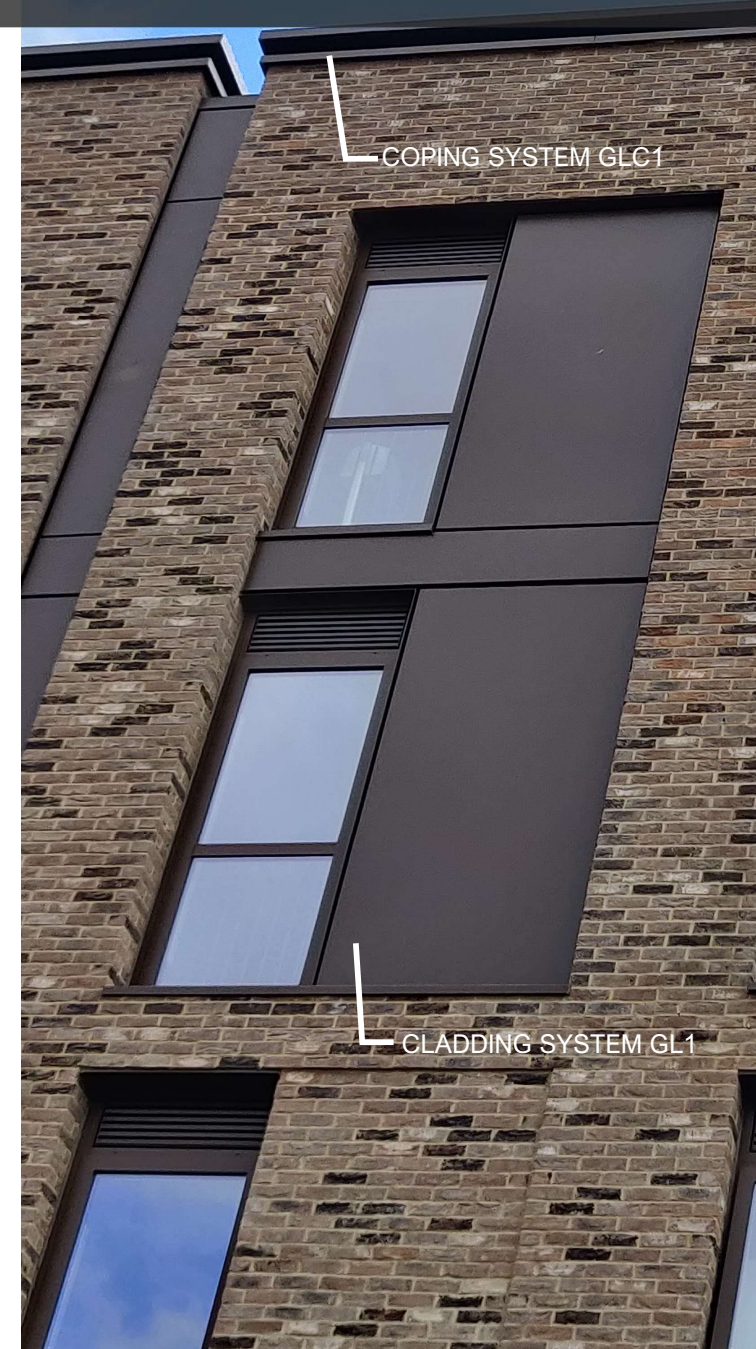
Awesome Advantages

Rainscreen cladding system GL1

- Large format, flat looking 3mm aluminium cassette panels
- 100's of colour and textures including anodized “look a like”, sandstone, warm to touch, anti abrasive, polished and perforated finishes,
- Panels include internal reinforcement profiles providing additional strength and rigidity
- Designed and Tested with two types of sub-frames suitable for fixing to any wall types or just floor slabs (“unitized design”)
- CWCT Tested to windload up to 3600 Pa
- CWCT Tested to impact resistance Class 2 “negligible risk” in public areas
- Includes Designed and Tested interfaces with glazing elements
- Available with unique easily removable panels for convenient maintenance access to floor slab zone

Wall coping system GLC1

- 3mm aluminium cope panels up to 800mm wide with folded edges matching look of GL1 cladding
- One-piece corner panels manufactured without mitre joints and visible welding considerably improving watertightness, alignment and reducing installation costs
- Secret fix lock-in installation without visible fixings
- Unique 2-way adjustable base brackets providing perfect alignment and levelling during installation
- Folded top brackets with edge gaskets for proper panel retention and waterproof joints
- No need of mastic joints
- Available with A1 rated non-combustible base board and EPDM sealed edges and fixings providing excellent cavity waterproofing
- Optional galvanized steel support angle fixed to internal wall leaf eliminating fixing to brick work and preventing damages and displacement of top brick courses



All you need to know about cladding GL1...

01

DIMENSIONS AND PARAMETERS

Panel orientation: portrait or landscape

Panel depth: 50-54mm

Face panel sizes: minimum 100x500mm, maximum: 1255x2840mm*

Panel fixing method: concealed mechanical fixings along longer panel edges, semi-concealed mechanical fixings along shorter edges.

For panels over 600mm wide, additional reinforcement profiles build into panels used in conjunction Gladius lock-in brackets.

Fixings type: self-drilling stainless steel screws or expanding anchor bolts in grade A2 or A4

Cavity size: minimum: 50mm, maximum: 300mm allowing use of up to 250mm thick external insulation.

Structural Movement Allowance: up to 20mm per floor.

Backing Wall Compatibility: SFS, masonry, SIP or similar infill and shear walls, structural steel frames, concrete frames .

* - all dimensions and parameters are listed in accordance to CWCT test report

02

PERFORMANCE DATA

Air Tightness*: 1.5m³/hr/m² (when used with tested type of backing wall).

Water Tightness*: Min. 600 Pa (when used with tested type of backing wall).

Wind Load Resistance*:

- Up to 2000Pa live load and 3000Pa safety load for both positive and negative pressure (when used with tested type of backing wall)

- Up to 2400Pa live load and 3600Pa safety load for both positive and negative pressure (when used on it's own)

Impact Resistance*: Class 2 “negligible risk” when used when used in category B areas including non-accessible and readily accessible to public and others with chances of accident occurring and of misuse.

Behaviour to fire: Cladding system includes only aluminium alloy or stainless steel panels, profiles rails, brackets and fixings which are non-combustible by nature.

PPC finish on panels achieves A2,-s1, d0 as tested by Akzo Nobel.

* - all dimensions and parameters are listed in accordance to CWCT test report

03

COMPONENTS

Cladding Panels: 3mm aluminium pressed cassettes with interlocking joints along long edge reinforced with aluminium Z-profiles. Include drainage and movement provision.

Interfaces: 2 and 3mm aluminium pressings shaped to suit panel interlock detail.

Finish: PPC to BS EN 12206-1:2004 in RAL and BS palette, special metallic, anodic and textured colours, bespoke perforations.

Sub-Frame:

Option 1 - L shape “helping hand” brackets and vertical rails (tested with Fisher EVT) allows fixing to any structurally suitable solid wall type.

Option 2 - U shape HD brackets and vertical aluminium box profiles (tested with Fischer UWH) allows fixing to floor slab edges or another points with maximum span 3300mm.

Both options include 3mm aluminium hidden lock-in brackets fixed to vertical rails supporting panels mid-span.

Backing Wall, as tested (optional)

150mm FrameClad SFS infill wall covered with 12mm Siniat WeatherDefence board and Tyvek FireCurb breather membrane

All you need to know about copings GLC1...

01

DIMENSIONS AND PARAMETERS

Panel length: 100mm – 3000mm

Panel width: 200 – 800mm

Face height: 60-200mm

Slope gradient range: 0-5deg

Fixing method for panels: self-locking into retention pressings fixed to base brackets with two “fail-safe” fixings installed in rear face of panels. Retention achieved by shape of the pressing and internal compression gasket.

Fixings: expanding nylon sleeve anchors or concrete screws and self-drilling tek screws in stainless steel grade A2 or A4.

Cavity size: max. 150mm without additional steel support angle, max. 400mm with steel support angle.

Fixing to outer wall leaf: not essential providing steel support angle is installed .

Bracket adjustability:

- Horizontally: +-15mm

- Vertically: +-10mm

Backing Wall Compatibility: SFS, masonry, SIP or similar infill and shear walls, structural steel frames, concrete frames

02

PERFORMANCE DATA

Wind Load resistance:

- up to 2400 Pa with wall overhang up to 50mm

- up to 2000 Pa with wall overhang up to 150mm

Walking Load resistance: up to 1.5kN/m² (with additional reinforcement)

Snow Load resistance: up to 0.7kN/m² (UK zone1-5)

Thermal movement: up to 6mm per each panel joint

Water Tightness: Panel joints are sealed with compression gaskets, base board sealed with EPDM membrane

Drainage: positively drained onto the roof via panels and soakers in retention pressings

Behaviour to fire: Coping system includes only aluminium alloy or stainless steel panels, brackets and fixings which are non-combustible by nature. Inclusion of sealing membrane is permitted by Approved Document “B”, : 2020. Base board is A1 fire rated.

PPC finish on panels achieves A2,-s1, d0 as tested by Akzo Nobel.

- all dimensions and parameters listed in accordance to Gladious engineering calculations

03

COMPONENTS

Straight coping panels: 3mm aluminium pressed panels with open joints

Corner coping panels: 3mm aluminium panels folded from single material blank as one-piece corner with returns without visible joints

Retention pressings: 2 or 3mm pressed aluminium with site applied compression EPDM gaskets.

Base brackets: 3mm aluminium 3-part pressings supplied loose

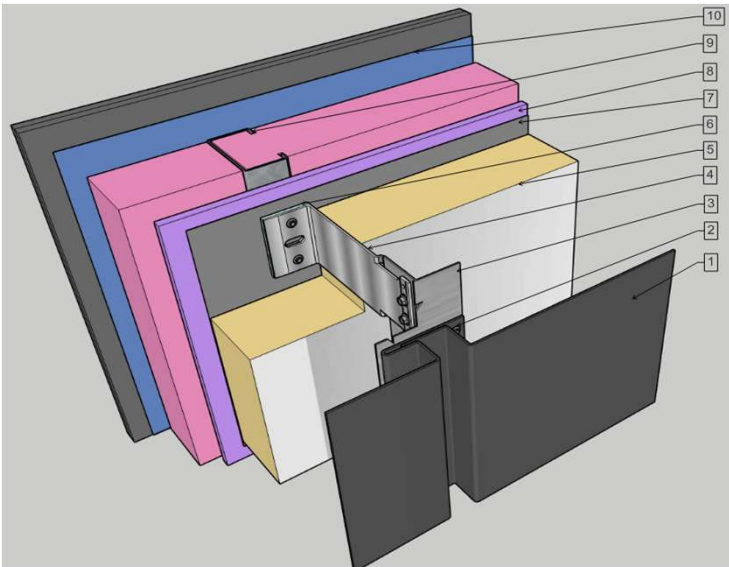
Base Board: fibre cement type A1 fire rated board pre-cut at factory

Edge seal: EPDM membrane with permanently flexible paste adhesive

Insect mesh: aluminium black woven mesh

Finish: PPC to BS EN 12206-1:2004 in RAL and BS palette, special metallic, anodic and textured colours.

Awesome Details



1 Cladding Section with Vertical Brackets and Cladding Rail (fixing to backing wall)

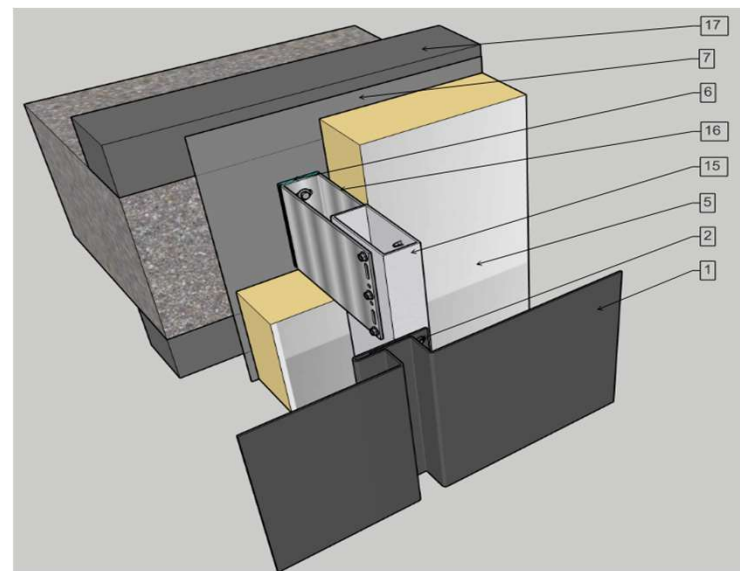
2 Interface with brick wall below cladding

CLADDING SYSTEM COMPONENTS

1. 3mm aluminium Cladding Panel with reinforcement profiles
2. Hidden fixing
3. "L" or "T" vertical cladding rail (tested with Fisher EVT)
4. Vertical cladding bracket (tested with Fisher EVT)
5. Non-combustible Insulation up to 250mm
6. Thermo insulating pad
7. Breather membrane (tested with Tyvek Firecurb)
8. A1 fire rated Sheathing board (tested with Siniat Weatherdefence)
9. SFS stud wall with insulation infill (tested with Frameclad)
10. Internal VCL and drylining
11. Aluminium cladding cill
12. Galvanized steel cladding cavity tray
13. EPDM or DPC membrane cover sealed to wall
14. Full fill cavity fire barrier
15. Aluminium RHS profile (tested with Fischer UWH)
16. Aluminium U shaped bracket (tested with Fischer UWH)
17. Infill backing wall (none load bearing)
18. Cill retention bracket
19. Window reveal pressing fixed behind panel (optional)
20. Transition pressing (optional)
21. Non-combustible insulation infill
22. Visible recess fixings
23. Removable cladding panel
24. Open State fire barrier with panel infill piece
25. Panel reinforcement profile
26. Lock-in bracket
27. Metal spacer

COPING SYSTEM COMPONENTS

- A. 3mm aluminium self-locking Coping Panel
- B. Retention pressing with gasket
- C. 2 way adjustable base bracket
- D. A1 fire rated base board
- E. Galvanized Steel support bracket (optional)
- F. DPC membrane (optional)
- G. EPDM membrane seal
- H. Aluminium insect mesh
- I. Corner base bracket
- J. One-piece corner panel

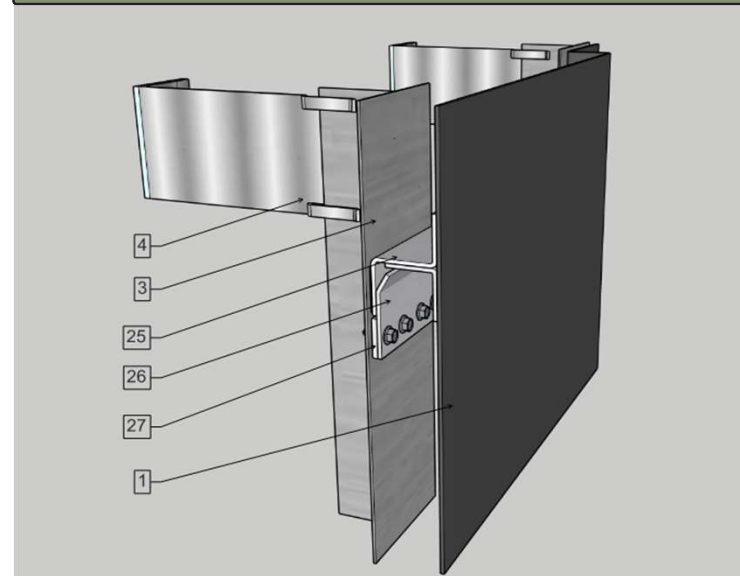
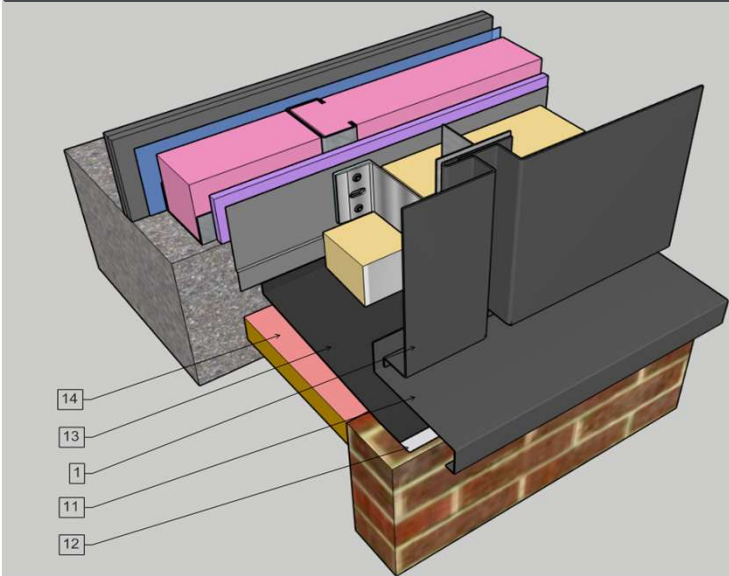


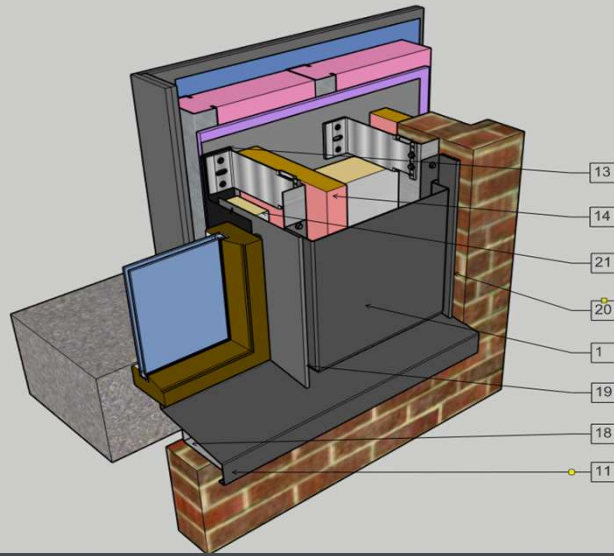
Cladding Section with U-shaped Brackets and Vertical Box Profiles (fixing to slab)

3

Cladding section with reinforcement profile and hook-on bracket

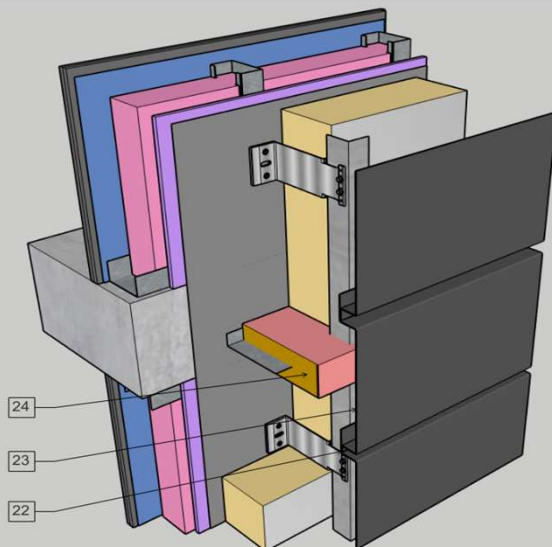
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5 Cladding Section with Window Reveal, Cill and Brickwork interface

6 Cladding Section across Floor Slab

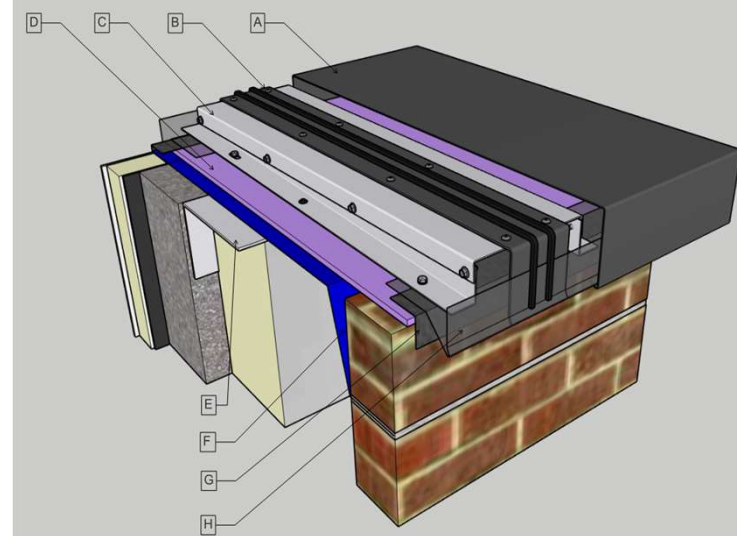


CLADDING SYSTEM COMPONENTS

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27. Metal spacer

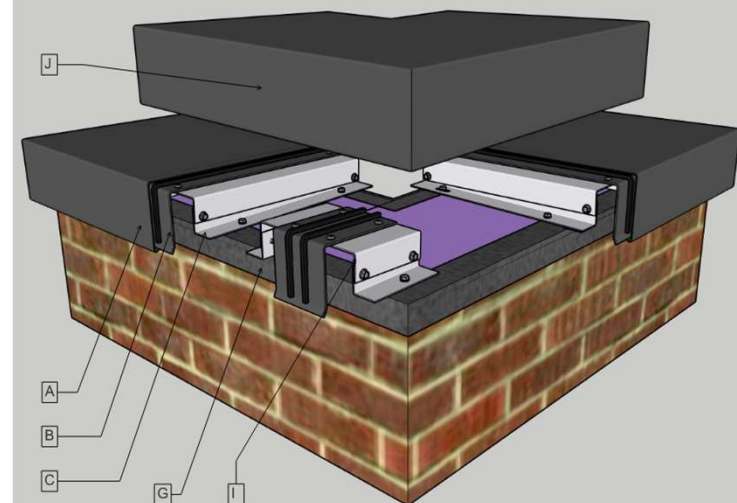
COPING SYSTEM COMPONENTS

- A. 3mm aluminium self-locking Coping Panel
- B. Retention pressing with gasket
- C. 2 way adjustable base bracket
- D. A1 fire rated base board
- E. Galvanized Steel support bracket (optional)
- F. DPC membrane (optional)
- G. EPDM membrane seal
- H. Aluminium insect mesh
- I. Corner base bracket
- J. One-piece corner panel



Coping Section above cavity wall **7**

Coping Section above corner **8**



Awesome Manufacture



Aluminium cladding and coping systems manufactured in our two UK based factories, equipped with latest CNC controlled cutting, drilling, punching and bending machinery and fully computerised processing and quality control procedures.

Both factories are conveniently located in East Hertfordshire, only short drive from London, East Anglia, South-East and Home Counties and easy access to M11 and A10 routes.

Our trained and qualified staff has decades of experience in manufacturing of pressed metal products with emphasis on architectural cladding systems for construction industry. We also have in-house polyester powder coating line allowing us to offer complete production cycle for all panels and pressings, from in-take of metal sheets and coils to despatch of finished materials. All painted products despatched with low tack protection film as default helping our customers to minimize transport, distribution and installation damages. We operate fleet of our own delivery vehicles as well as distribution via trusted local hauliers and nationwide logistic companies.



Awesome Projects



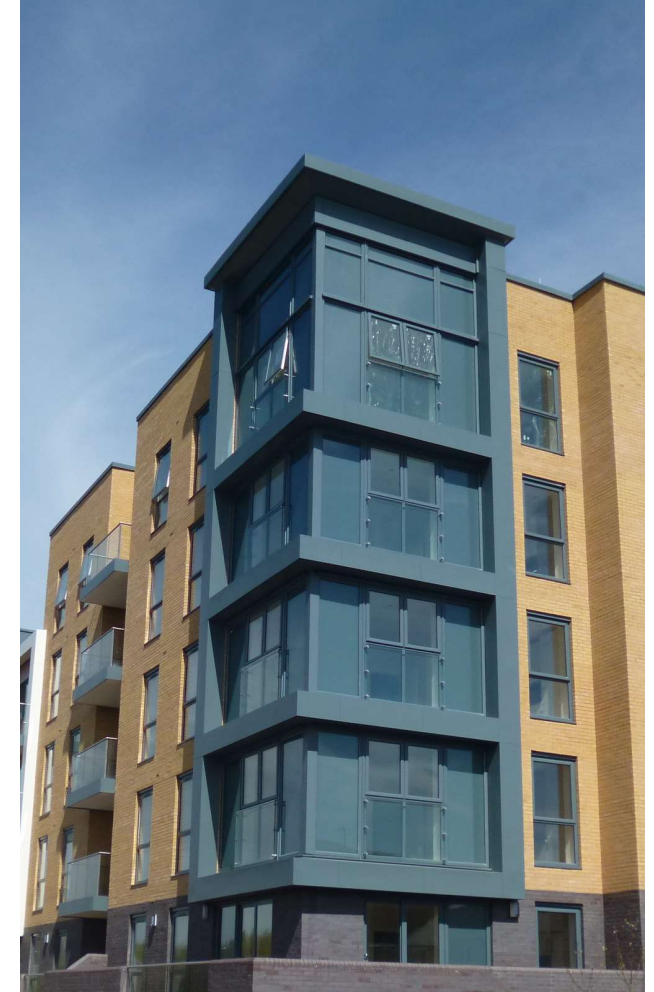
Abbey Wharf, London

Residential development comprising 136 residential and 2 commercial units over 6 blocks. Main Contractor: Inland Homes
Aluminium cladding GL1 and copings GLC1 were extensively used by RMA architects to create distinctive looking facade



Kennet Island, Reading

Block K of large residential development by Berkeley Homes (Western)
Aluminium cladding GL1 and copings GLC1 were used to create exclusively looking corner "towers" of the building and canopies around main entrances



Awesome Projects



Bream Street, London

Mixed use development comprising 5 blocks with multiple architectural features located by river Lea in East London and overlooking Queen Elizabeth Olympic Park and London Stadium.

Cladding system GL1 and Coping system GLC1 were utilized to create sharp looking, distinct facades on Blocks D & F



For more information and samples please contact us



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