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Other brochures available on request from Kawneer are:

- Architectural Aluminium Systems Finishes
- Entrance Doors and Framing Systems
- Curtain Wall Systems
- AA®130 Brise Soleil System  
Solar Shading for Reduced Solar Heat Gain
- Window Systems
- AA®601TE Parallel Opening Window  
The Optimum Ventilation Solution for Maximum Air Exchange
- AA®3610LS Linked Sash Vertical Sliding Window  
The Optimum Ventilation Solution for your Education and Health Projects
- Specialist Horizontal Sliding Window Solutions for your Healthcare Project
- Architectural Aluminium Glazing Systems Specification Guide

Specialist Kawneer Contractor:



Kawneer's continuous development and engineering programmes may bring about product changes. Kawneer reserves the right to introduce without notice such changes which will not detract from the product's performance  
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## Residential Aluminium Glazing Systems



ARCHITECTURAL SOLUTIONS FOR RESIDENTIAL BUILDINGS





# Sustainable Aluminium Glazing Systems

## Introduction

Kawneer is one of the UK's leading architectural aluminium glazing systems manufacturers. We have a long track record of successful project delivery in the Residential market, providing best value and best practice solutions.

Our commitment to the Residential new build and refurbishment markets is supported by our significant investment in product development to meet the sectors increasingly stringent project requirements.

## Sustainability

At Kawneer, we take all our responsibilities very seriously. We're dedicated to creating products and systems that promote integrated, whole-building design practices.

For our own production, we use recycled aluminium billets 100% of the time and all production waste is recycled. Our extrusions carry a life expectancy of 50 years, significantly higher than other materials - and of course, they're 100% recyclable.

Aluminium is widely recognised as one of the best materials available for construction. Aside from its practical and energy-saving advantages, it can be recycled repeatedly without loss of properties using just 5% of the energy originally used to mine, smelt and produce it. Aluminium's natural strength, lightness and durability makes it the ideal material for meeting architectural glazing requirements.

We're committed to creating products that help comply with BREEAM standards and promote integrated, whole building designs; and with 95% of aluminium in buildings being recycled, architects can design with cradle to cradle lifecycles in mind, helping to achieve green building standards.

For more detailed information on our sustainability credentials, a Sustainability Brochure can be obtained from our Head Office on 01928 502500 or downloaded from our website [www.kawneer.co.uk](http://www.kawneer.co.uk)



Dock 9, Erie Basin, Salford Quays  
BroadwayMalyan Architects

Contents	
Introduction	2-3
Project Support	4-5
High Performance Window Systems	6-9
Sliding Window & Door Systems	10
High Performance Residential Door Systems	11
Entrance & Framing Solutions	12
Curtain Wall Systems	13
Solar Shading	14
Envelope Interface Solutions	15
Residential Case Studies	16-19

# Meeting Residential Performance Requirements

## Security

Kawneer's Door, Framing and Window systems with enhanced security hardware options, meet security standards PAS 23, PAS 24 and BS 7950, giving specifiers and end-users the confidence that our products meet exceptional security criteria.

As part of our continued commitment to providing the highest levels of security, our systems are independently tested to the standards required to meet **Secure by Design**.

Kawneer is a certified member of the BM Trada Q-Mark scheme.



## Thermal Performance

Kawneer products are designed to provide excellent thermal performance and energy-efficiency as part of our environmental commitment. Low U-values are offered throughout the product range utilising the very latest thermal technology.

## Window Energy Ratings (WERs)

Both the Kawneer AA®540 and AA®600TEPlus window systems can achieve an 'A' rating within the Window Energy Rating Scheme. *Based on CEN sized (1230mm x 1480mm) window simulations.*

## Green Guide BRE A-Rated Window

The Kawneer AA®540 series achieves a summary rating of A, meeting the criteria set out in the BRE Global Green Guide online generic specification for windows. \*

\* [www.thegreenguide.org.uk](http://www.thegreenguide.org.uk)  
Element Number 831500023

## Acoustics

Glazing is a fundamental consideration in noise control. Kawneer systems can accommodate triple glazing and specialist acoustic glazed units to attain the very highest levels of acoustic performance.

## Natural Ventilation

Parallel opening, pivot and sliding window systems have been designed to offer the highest levels of natural ventilation.

Integrated, self regulating ventilation units are also compatible with Kawneer window systems.

## Weatherability and Durability

Independent testing is carried out on all Kawneer products to ensure that they will meet, and exceed the most stringent weather and operational tests. Kawneer windows and doors have been rigorously tested to BS 6375 (Parts 1 & 2) for weather and operational performance and curtain walling has been testing to CWCT standards to ensure technical superiority throughout the range.

## Code for Sustainable Homes

All Kawneer systems have been designed to assist in meeting the demands of the Code for Sustainable Homes.

## NHBC Compliance

Kawneer can work with specifiers to provide National House Building Council (NHBC) compliant solutions on a project-by-project basis.

## Lifetime Homes

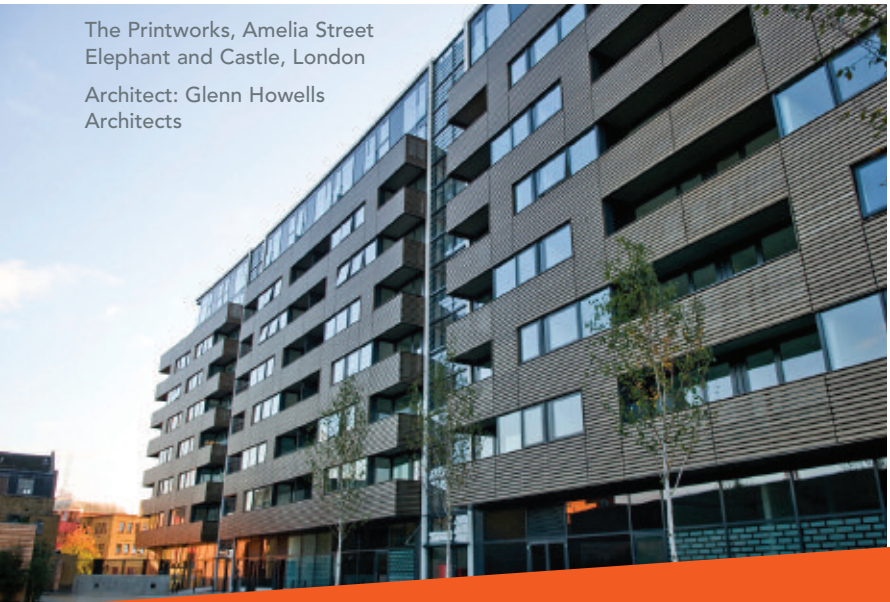
All Kawneer products are designed with the flexibility needed to meet the requirements of Lifetime Homes.

Our comprehensive and versatile product offer allows for full consideration of the long term needs of the end-user.

## Whole Life Maintenance

Clear and concise operating and maintenance guides are available for all our products to assist the end-user, whether they are an owner or a tenant.

The Kawneer AA®541 casement window is available with optional egress 'easy clean' hinges which are ideal for apartment applications.



The Printworks, Amelia Street  
Elephant and Castle, London  
Architect: Glenn Howells  
Architects

© Paul McMullin courtesy Glenn Howells Architects



# Project Support

## Single Source Responsibility

Kawneer is an ISO 9001 company. We provide a unique single source responsibility for product design, extrusion and finishing. In addition we offer technical support tailored to the needs of your project, large or small.

Our experienced designers consistently provide responsible solutions through the development of safe products with full consideration for the end-user.

Kawneer is also accredited to Environmental Standard – ISO 14001 (2004 Version).

ISO 9001 Certification



Certificate No. FM 01954

ISO 14001 Certification



Certificate No. EMS 70103

## Nationwide Network of Approved Specialist Contractors

Our fabricators and installers are fully trained prior to approval, and regularly undergo top-up courses to ensure that their skill levels have been maintained as well as receiving instruction on new products, product modifications or regulation changes. All training will be provided by CWCT approved Kawneer staff.

## Kawneer Installation Certificate (KIC)

Quality is the bedrock of our business and through KIC training we create an environment of best practice in standardised installation.

This intensive two day training course, available to Main Contractors and Installers, is designed to provide a structured, strategic approach to the installation of Kawneer products and is aimed at individuals who are involved with the installation process, i.e. Project Managers, Contract Managers/Supervisors, Installation Team Foremen and Installers.

The course is rigorously assessed to ensure quality and those that pass are awarded a photographic ID card which is then valid for 3 years.



For further information on our KIC Course please contact our Technical Department on:  
Tel: 01928 502500 / Fax: 01928 502501  
Email: kuk.kawneer@alcoa.com



## A full range of guaranteed colours available

Kawneer Permacover™ is a high quality polyester powder paint finish, offering over 130 standard and 31 metallic paint colours and providing outstanding resistance to environmental conditions. Kawneer Permacover™ has 30 year gloss and a 30 year matt and metallic guarantees subject to application and Kawneer acceptance in marine, industrial, swimming pools or other aggressive atmospheres.

To ensure the highest quality finish, powder coating is carried out in house as part of our single-source responsibility.

Kawneer Permanodic® is a range of subtle anodised colours which have been specifically developed for architectural glazing systems. Kawneer Permanodic® is a tried and tested anodising process, proven in accelerated laboratory tests, extensive field trials and contract experience. Subject to compliance with Kawneer's requirements, a 25 year finishes guarantee can be obtained.

## Project Assistance

Kawneer's regionally based team of Architectural Advisors and the Architectural Services Team based at our Head Office in Runcorn are able to provide project advice and support:

**Tel: 01928 502604 / Fax: 01928 502512**  
**Email: kawneerAST@alcoa.com**

## Warranties

Warranties are provided for all our products as part of our commitment to providing long-term solutions and comprehensive after-market support.

Kawneer products that are independently tested to the exacting requirements of the BM Trada Q-Mark scheme are recognised by controlling authorities and home warranty providers such as the National House Building Council (NHBC).

Kawneer's extrusions carry a life expectancy of 50 years, significantly higher than other materials.



The Shoe Factory, Leicester  
Metropolis Architecture

Photography supplied by Pearmain Ltd



The Quays, Chatham Maritime, Kent  
KDS Associates and Wilkinson Eyre Architects



# High Performance Window Systems

## AA®540 Series



### Introduction

The Kawneer AA®540 series demonstrates an effective balance of high performance with competitive pricing. The full range achieves a summary rating of **A** in the **\*BRE Global Green Guide** online generic specification for windows and can achieve a **Window Energy Rating (WER)** of **A** making it ideally suited for projects with significant sustainability and environmental demands.

The slim, unobtrusive 54mm profiles utilise a multi-chamber polyamide thermal break to provide exceptional thermal performance while also enabling the option of dual colour finish where required.

The AA®540 series also features a standard hardware groove which offers a cost effective hardware solution.

*\* Corresponds to the BRE Global Green Guide online generic specification for windows and achieves a summary rating of A.  
www.thegreenguide.org.uk  
Element Number 831500023*

### Glazing

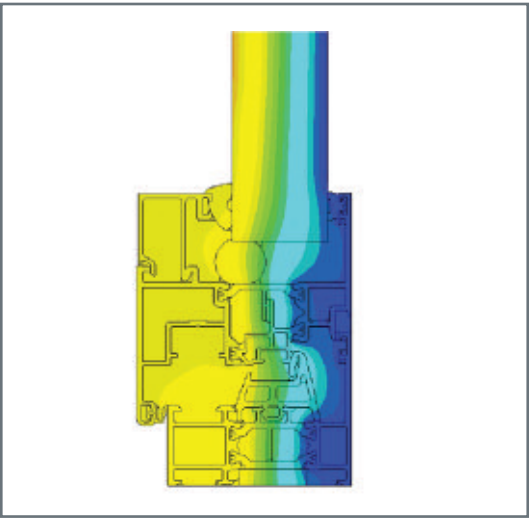
Glazing and panels up to 39mm thickness can be accommodated enabling the use of triple glazing when there is a requirement for the very highest thermal and acoustic performance.

### Configurations

The AA®540 range features an extensive array of configurations including standard casements, horizontal pivot, vertical pivot and tiltturn windows.


Side hung casements are available with optional egress 'easy clean' hinges which are ideal for apartment applications.

The AA®540 range suites fully with the Kawneer AA®100/AA®110 curtain walling and the 451PT framing systems to provide complete design freedom.



Thermal Model of the AA®541

## Product Selector

	AA®541 Casement	AA®542 Pivot	AA®543 Tiltturn
Frame Depth	54mm	54mm	54mm
Configurations & Maximum Sizes *			
Top Hung	1800mm x 1800mm (projecting top hung)		
Side Hung	845mm x 1800mm (projecting side hung)		
Horizontal Pivot	1800mm max height 1800mm max width		
Vertical Pivot	1800mm max height 1800mm max width		
Tiltturn	1590mm x 2200mm		
Features			
BRE Green Guide Summary Rating 	A	A	A
WER Rating **	A	B	A
Performance			
Capable of achieving U-value**	1.5 W/m²K	1.6 W/m²K	1.5 W/m²K
Air Infiltration (BS EN 12207: 2000)	600Pa	600Pa	600Pa
Watertightness (BS EN 12208: 2000)	600Pa	600Pa	600Pa
Wind Resistance (BS EN 12210: 2000)	2400Pa	2400Pa	2400Pa
Security to BS 7950	Yes	N/A	Yes

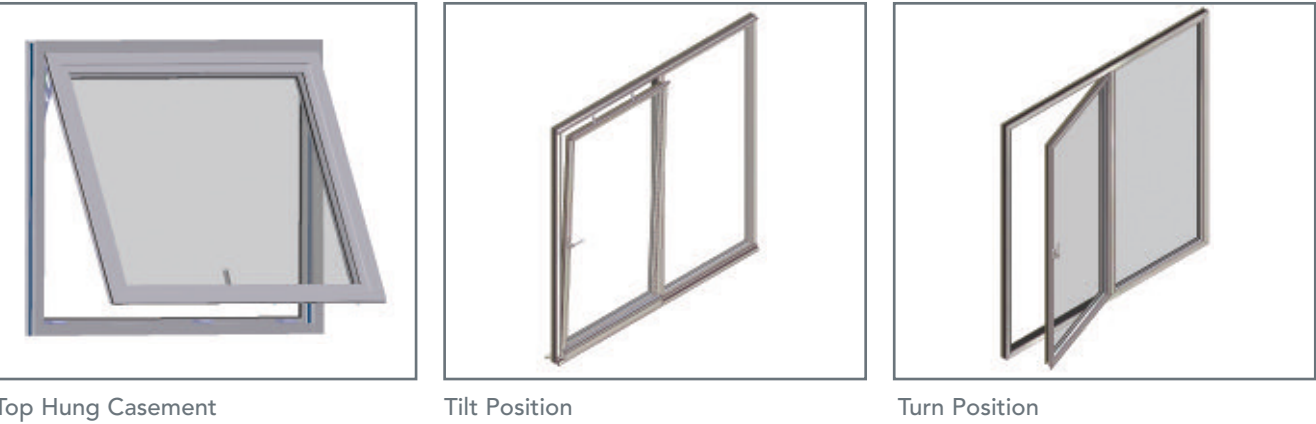
\* Maximum sizes are dependant on glass weight. Maximum heights and widths cannot necessarily be combined. Refer to size charts within the Product Manuals for the available size ranges.

\*\* Window Energy Ratings and U-values based on CEN size windows (1230mm x 1480mm) using 1.1 W/m²K glazing with Swisspacer V bar.

■ Corresponds to the BRE Global Green Guide online generic specification for windows and achieves a summary rating of A. www.thegreenguide.org.uk Element Number 831500023.

AA®541 and AA®543 have been tested to BS 7950: 1997 – Amendments 1, 2 & 3.

Independently weather and operational performance tested to BS 6375 Parts 1 & 2: 2009





# High Performance Window Systems

## AA®600TE and AA®600TE<sup>Plus</sup> Series



### Introduction

The Kawneer AA®600TE and AA®600TE<sup>Plus</sup> series have been developed to set new standards in window systems through unrivalled flexibility of design and outstanding weather and thermal performance.

The 67mm profiles incorporate extruded polyamide thermal breaks providing enhanced thermal performance and enabling dual colour finish where required. Recent AA®600TE<sup>Plus</sup> enhancements include convection fins within the framing and vent profiles as well as EPDM “heat shields” in the hardware cavity. These modifications enable the system to outperform the stringent thermal demands outlined in Approved Document L 2010.

### Glazing

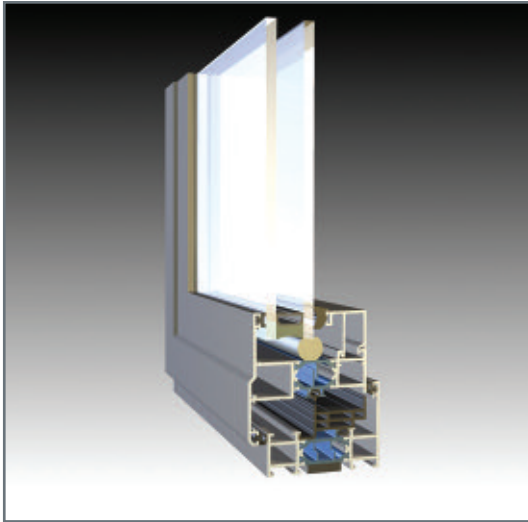
Glazing and panels up to 51mm thickness can be accommodated enabling the use of triple glazing when there is a requirement for the very highest thermal and acoustic performance.

### Configurations

There is an extensive array of configurations available within the high performance AA®600TE range.

As well as the standard top and side hung casement, there is a parallel opening window which offers exceptional levels of natural ventilation. There are also horizontal pivot, vertical pivot and tiltturn options.

In addition to being a totally integrated window and door system, the AA®600TE range suites fully with the Kawneer AA®100/AA®110 curtain walling and the 451PT framing systems to allow even greater design freedom.



Cross section of the AA®601TE<sup>Plus</sup>

HQ Chester  
AFL Architects



# Product Selector

	AA®601TE <sup>Plus</sup> Casement	AA®602TE Pivot	AA®603TE Tiltturn
Frame Depth	67mm	67mm	67mm
Configurations & Maximum Sizes *			
Top Hung	2300mm x 2500mm (projecting top hung with heavy duty vent profile)		
Side Hung	890mm x 1800mm (projecting side hung)		
Parallel Opening	1500mm x 2400mm		
Horizontal Pivot		1900mm max height 1900mm max width	
Vertical Pivot		1900mm max height 1900mm max width	
Tiltturn			1600mm x 2100mm
Bottom Hung Open In			1400mm x 2200mm
Features			
WER Rating **	A	B	A
Performance			
Capable of achieving U-value **	1.5 W/m <sup>2</sup> K	1.6 W/m <sup>2</sup> K	1.5 W/m <sup>2</sup> K
Air Infiltration (BS EN 12207: 2000)	600Pa	600Pa	600Pa
Watertightness (BS EN 12208: 2000)	600Pa	600Pa	600Pa
Wind Resistance (BS EN 12210: 2000)	2400Pa	2400Pa	2400Pa
Security to BS 7950	Yes	N/A	Yes

\* Maximum sizes are dependant on glass weight. Maximum heights and widths cannot necessarily be combined. Refer to size charts within the Product Manuals for the available size ranges.

\*\* Window Energy Ratings and U-values based on CEN size windows (1230mm x 1480mm) using 1.1 W/m<sup>2</sup>K glazing with Swisspacer V bar. AA®601TE<sup>Plus</sup> and AA®603TE have been tested to BS 7950: 1997 – Amendments 1, 2 & 3.

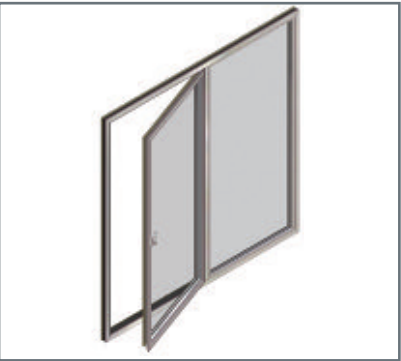
Independently weather and operational performance tested to BS 6375 Parts 1 & 2: 2009



Parallel Opening Window



Tilt Position



Turn Position

Sliding Window & Door Systems



AA®3110 Sliding System

The Kawneer AA®3110 horizontal sliding system represents an efficient sliding solution, designed to meet specific project requirements. The AA®3110 is available as both a sliding window and door system, offering project solutions for balcony applications and increased ventilation wherever this may be a requirement.

Available as double or single sliding options, including 3 or 4 door options, the AA®3110 offers total flexibility. The continuous air flow and optional, integrated self regulation ventilator offers an ideal solution for Document F compliance. Glazing up to 33mm can be incorporated within the system allowing the use of specialist glazing units such as interstitial blinds.



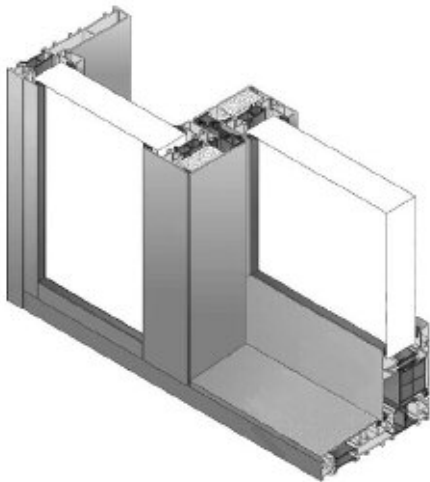
AA®3110 Sliding Door Configuration

AA®3572 Lift Slide System

The new Kawneer AA®3572 system has been developed as a lift slide solution for projects that demand the highest levels of thermal and weathering performance.

The AA®3572 is a thermally insulated system with a vent weight up to 400kg and size up to 3 metres. The lift slide system delivers optimum levels of quality and performance combined with ease of operation. Highly robust profiles with high insulation values enable large areas of glass and freedom in design for even large spans. Slim meeting stiles allow the system to remain unobtrusive and, as a sliding system, it is an ideal space saving solution where safety is a consideration and projecting swing doors are undesirable.

The double EPDM gasket with continuous rebate provides exceptional weathering performance and high levels of sound reduction.



AA®3572 Lift Slide System

Product	Operation	Max Vent Weight	Capable of achieving U-value *	Air Infiltration	Water-tightness	Wind Resistance	Security **
AA®3110	Slide	200Kg	1.7 W/m²K	Class 3	Class 9A	Class B5	Class 2
AA®3572	Lift Slide	400Kg	1.4 W/m²K	Class 4	Class 9A	Class C3	Class 2

\* U-values based on CEN size windows (1230mm x 1480mm) using 1.1 W/m²K glazing with Swisspacer V bar.

\*\* Independently tested to European Security Classification ENV 1627.

Independently weather performance tested to BS EN 14351-Part 1. Performance is dependent on frame and panel combinations.

High Performance Residential Door Systems



AA®540 and AA®600TE Series

The versatility of the Kawneer AA®540 and AA®600TE series provides high performance, thermally broken residential doors that suite with the standard window configurations.

These door configurations are fully integrated with the window systems, providing ideal apartment glazing solutions.

The door systems also offer unrivalled flexibility of design and outstanding weather and thermal performance.

Glazing

Triple glazing can be accommodated in all Kawneer high performance doors for when there is a requirement for the very highest thermal and acoustic performance.

Configurations

The configurations available within the high performance door ranges include standard swing doors, tiltturn and tilt slide options.

As well as being totally integrated window and door systems, the AA®540 and AA®600TE ranges suite fully with the Kawneer AA®100/AA®110 curtain walling and the 451PT framing systems to allow even greater design freedom.



The Shoe Factory, Leicester  
Metropolis Architecture



Berkeley Square, Plymouth  
Architects Design Group

	AA®543	AA®603TE	AA®605TE <sup>Plus</sup>
Frame Depth	54mm	67mm	67mm
Configurations & Maximum Sizes *			
Tiltturn Door	1590mm x 2200mm	1600mm x 2100mm	
Tilt Slide Door		1650mm x 2400mm	
Swing Door			1200mm x 2800mm
Performance			
Capable of achieving U-value **	1.5 W/m²K	1.5 W/m²K	1.7 W/m²K
Security to BS 7950	Yes	Yes	Yes
Air Infiltration (BS EN 12207: 2000)	600Pa	600Pa	600Pa
Watertightness (BS EN 12208: 2000)	600Pa	600Pa	600Pa
Wind Resistance (BS EN 12210: 2000)	2400Pa	2400Pa	2400Pa

\* Maximum sizes are dependant on glass weight. Maximum heights and widths cannot necessarily be combined. Refer to size charts within the Product Manuals for the available size ranges.

\*\* U-values based on CEN sizes using 1.1 W/m²K glazing with Swisspacer V bar.

Tested to BS 7950: 1997 – Amendments 1, 2 & 3.

Independently weather and operational performance tested to BS 6375 Parts 1 & 2: 2009



# Entrance & Framing Solutions



## 451PT Framing System

The Kawneer 451PT Framing system offers integrated framing solutions, ideal for entrance and communal areas. Kawneer's 451PT provides slim 50mm sightlines which can be incorporated into framing modules of varying widths and

heights with polyamide thermal breaks providing high thermal performance.

It is fully compatible with the AA®540 and AA®600TE window systems as well as the heavy duty 190/350 door systems.



The Shoe Factory, Leicester  
Metropolis Architecture

Photography supplied by Pearmain Ltd



## 190/350 Door Systems

Kawneer design, engineer and manufacture complete door systems for any project application. High standards of processing ensure equally high standards of performance, backed up by a Kawneer Lifetime Guarantee. 'Dual Moment' welded corners are standard and represent the strongest aluminium door construction available. All four corners of the door are welded four times and fastened mechanically. Rigorous testing has verified its durability and exceptional strength making it an ideal solution for entrance and communal doors.

The 190 Narrow Stile door system is an all-purpose door, recommended for use in heavy traffic areas and automatic entrances. The 190 door can be installed with the 'Finger Guard' option, safeguarding against injury to fingers accidentally caught between the hinge stile and frame.

The 350 Heavy Duty door system provides extra width stiles for accommodating various lock options and heavy aesthetic appearance, providing the durability needed in high traffic areas.

Compatibility with various access control systems enables the use of project specific entrance solutions.



The Quays, Chatham Maritime, Kent  
KDS Associates and Wilkinson Eyre Architects

# Curtain Wall Systems (Traditional Stick and Unitised)



## AA®100, AA®110 and AA®201 Systems

Kawneer AA®100 and AA®110 systems offer a wide range of design options from a single grid. The tried and tested system is available in both zone and mullion drained options offering design versatility to any project.

The AA®100 50mm curtain walling system has been designed to provide the specifier with a wide choice of options according to the specific needs of the project.

The AA®110 65mm curtain walling system has been designed in line with the AA®100 system, the fundamental difference being the depth of the glazing rebate. The AA®110 can accommodate greater levels of barrier loading, enabling the façade to stand up to high levels of building movement.

Both systems are suitable for vertical, sloped and faceted applications and are available in various options including; fully capped, horizontal capped, structural silicone glazed and PFL picture frame systems (where opening vents and fixed lights have the same visual appearance).

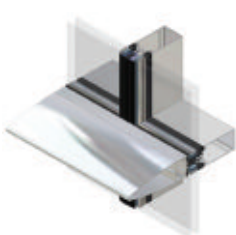
Kawneer's AA®201 is a unitised system designed to meet the demands of today's fast paced construction schedules. The factory assembled, pre-glazed units ensure quality control and rapid on site installation - a team of five can install up to 250m² of Kawneer's AA®201 unitised curtain walling in a single day.



Glasgow Harbour  
Cooper Cromar Architects



Fully Capped



Horizontal Capped



SSG Structurally Glazed



PFL Picture Frame

## AA®100 Fire Rated Curtain Wall

The AA®100 Firescreen has been independently tested to both UK and European fire standards by the world renowned Warrington Fire Research Centre to BS 476-22 and by the centre for Fire Safety in Delft, Holland to Pr EN 1364-3.

It is certified fire resistant with 30 minutes integrity, restraining fire to the inside of the curtain walling and 30 minutes insulation, keeping heat transference to the outside to a minimum making it ideal for use in stairwells and other communal areas.



Testing at Warrington Fire Research Centre



# Solar Shading



## AA®130 Brise Soleil Systems

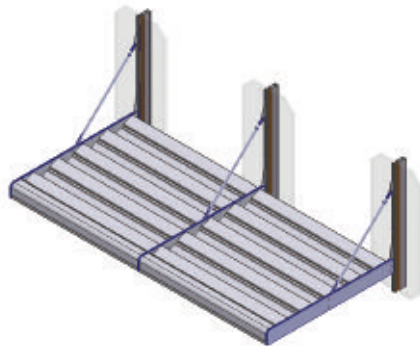
The Kawneer AA®130 Brise Soleil adds a stunning design statement to the building façade; optimising the natural daylight within a building whilst limiting the solar heat gain and glare, providing optimum comfort for residents.

The AA®130 Brise Soleil System consists of aluminium blades which are available as standard and bespoke variants to suit any project application where solar heat and glare is an important consideration.

To increase practicality, the AA®130 system is fully compatible with the Kawneer curtain walling, window and framing systems utilising standard brackets for easy integration.

### Product Features

- Suites with the AA®100/AA®110 and AA®201 Curtain Wall, 451PT Framing and AA®600TE and AA®600TE<sup>Plus</sup> Window Series
- A choice of Aerofoil Blades with a size range from 100mm to 400mm and Quarter Round Blades with a size range from 100mm to 250mm
- Horizontal Single Blade Options with 3 angles available - 0°, 22.5° and 45°. Horizontal Outrigger and Multiple Blade Options with 3 reaches available - 1000mm, 1500mm and 2000mm
- Glazing Systems and Brise Soleil from one manufacturer
- Control of solar glare, whilst maximising the amount of natural light reaching the building's internal environment
- Reduction in solar heat gain and allows greater use of natural ventilation
- Flexibility and choice according to individual requirements, providing a stunning aesthetic statement that unites the building façade
- Total design flexibility Offering total project solutions



Horizontal Outrigger Configuration



Horizontal Multiple Blade Configuration



Horizontal Outrigger Configuration



Horizontal Multiple Blade Configuration

Photographs: BAM Construct UK

### With the decisive advantage of ...

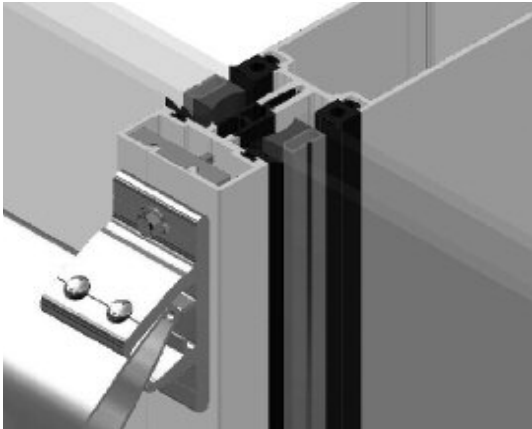
# Envelope Interface Solutions

## Integrated Brise Soleil

The Kawneer AA®130 Brise Soleil system is fully compatible with the AA®100/AA®110 and AA®201 Curtain Wall, 451PT Framing and AA®600TE and AA®600TE<sup>Plus</sup> Window Series. Integration with the systems is achieved using specially designed connection brackets, designed to offer ease of installation for even the most demanding projects.

Our experienced Technical Team can offer assistance in developing solutions for project specific applications:

Tel: 01928 502500 / Fax: 01928 502501  
Email: kuk.kawneer@alcoa.com



AA®130 Brise Soleil bracket to curtain walling

## Balustrade & Balcony Connections

Specially designed balcony balustrade connections enable the integration of balustrades directly to the Kawneer window systems offering design solutions for apartments and penthouses. These connection solutions can do away with the traditional and often difficult, non-standardised connections to the façade.



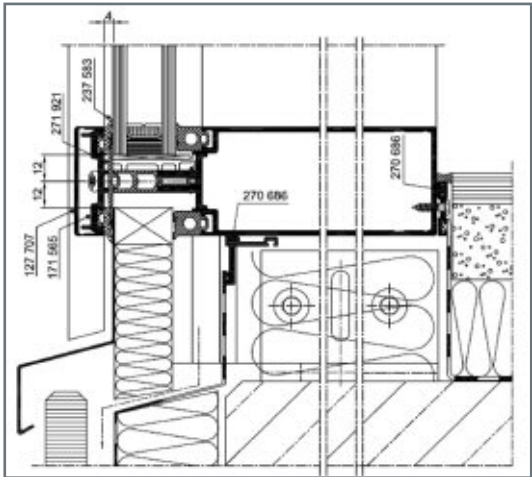
Balcony connection to window system

## Robust Interface Details

Kawneer are committed to developing robust interface details that will enable our systems to perform to the highest possible standards. All of our systems have standard interface details that have been carefully designed to enable seamless and effective integration into the façade.

An example of this is the integration of EPDM carrier profiles into our latest window system to enable straightforward yet robust weathering details.

If a project requires bespoke interface details, our experienced Technical Team can provide assistance to ensure the development of reliable, project specific solutions.



Integrated EPDM carrier profile within AA®100 curtain wall system for improved weathering



# Residential Case Studies

## The Printworks, Amelia Street, Elephant and Castle London

The entire range of Kawneer systems were used to help meet exacting performance criteria for this mixed-use, mixed-tenure project comprising 164 one, two and three bedroomed homes.

The development was designed by internationally acclaimed Glenn Howells Architects and exemplifies developer First Base's approach by incorporating innovative construction methods with brilliant design and exemplary sustainability standards.

Architect: Glenn Howells Architects  
Main Contractor: Laing O'Rourke  
Products: Kawneer Unitised and 65mm Curtain Wall, Casement Windows and Swing Doors



© Paul McMullin courtesy Glenn Howells Architects

"The acoustic performance requirements were very onerous. We had to achieve internal noise levels of 30dB during the night and day due to the site's inner city location, next to a railway line. The Kawneer systems offered sufficient flexibility to meet the design criteria and successful testing was carried out after completion.

The required thermal performance was achieved easily and we obtained Secured By Design. The client was very satisfied with the final product and its unique façade design."

Harald Hugues - Glenn Howells Architects

## HQ Chester

HQ Chester is a £50 million mixed-use, circular development.

The 250,000ft<sup>2</sup> project comprises 35 luxury apartments and penthouses over seven storeys, 67,000ft<sup>2</sup> of Grade A office space over six storeys, a luxury four-star Abode hotel over seven storeys, restaurants and landscaped grounds.

Set within the city walls and overlooking the famous racecourse and Welsh hills beyond, on a site that dates back to the Roman and Medieval times, HQ's design centred around a courtyard piazza.

Architect: AFL Architects  
Main Contractor: Pochin Construction  
Products: Kawneer 50mm, 65mm and Structural Silicone Glazed Curtain Wall, Casement, Tiltturn and Tilt Slide Windows



"There were a lot of conservation issues as the building is next to the city walls and opposite the castle. Extensive archaeological works had to be carried out before the scheme could go ahead on site."

Graham Bateson - AFL Architects

## Nottingham Lace Market

Kawneer systems helped to bring a contemporary feel to a mixed-use scheme linking Nottingham's historic Lace Market with the city centre.

The Lace Market Square development, which won a commendation from Nottingham Civic Society, includes 46 luxury apartments and penthouses and retail and leisure space surrounding a new open square above secure basement parking.

It nestles in the heart of the Lace Market Conservation Area between the city centre's Bridlesmith Gate fashion district and as well as neighbouring eateries and top fashion retailers, comprises retail units on the ground floor above four floors of apartments and a standalone restaurant pavilion in a 11,000ft<sup>2</sup> landscaped central piazza.

Architect: Franklin Ellis  
Main Contractor: Kier Marriott  
Products: Kawneer 50mm Curtain Wall, Casement Windows and Swing Doors



Photo: Bildum Properties

"We used the Kawneer systems because they were a cost effective solution to achieving the aesthetics required in a Conservation Area."

Tony Jenks - Kier Marriott

## The Quays, Chatham Maritime, Kent

The Quays is a spectacular landmark residential project, consisting of 332 apartments in two striking glass towers of 17 and 21 storeys and a five-storey wharf. It is supported by extensive leisure and retail facilities, providing a high-quality mixed-use scheme on the south side of Basin One, overlooking the marina.

Architects: KDS Associates and Wilkinson Eyre Architects  
Main Contractor: Ardmore Construction  
Products: Kawneer Unitised and 65mm Curtain Wall and Tilt Slide Doors





# Residential Case Studies

## The Shoe Factory, Leicester

Kawneer systems proved the perfect traditional as well as contemporary fit for a £6 million redevelopment of a shoe factory into luxury apartments.

The 44 apartments range from one-bedroomed units to three-bedroomed duplex penthouses built of steel and lightweight metal framing on the roof of the original building. All have wraparound terraces to make the most of their enviable location on the banks of the River Soar overlooking Abbey Park in Leicester.

Architect: Metropolis Architecture  
Main Contractor: Hallam Contracts  
Products: Kawneer Casement, Tiltturn and Slimline Renovation Windows, Thermally Broken Framing, Entrance and Swing Doors



Photography supplied by Pearmain Ltd

"The Kawneer systems keep the original aesthetics on the retained facades and provide modern, simple lines to the new additions. They have certainly enabled our initial design concepts to be realised on site."

Mark Guyatt - Metropolis Architecture

## The Hub, Piccadilly Place, Manchester

Centrepiece of Manchester's new Piccadilly Place development, this 167-apartment block has made extensive use of Kawneer's curtain walling and glazing systems.

The high specification apartments, range from studios to three-bedrooms on the first to tenth floors and 7,700ft<sup>2</sup> of commercial space on the ground floor.

Designers Glenn Howells Architects chose Kawneer systems for their high performance, aesthetics and ability to achieve an Eco Homes rating.

Architect: Glenn Howells Architects  
Main Contractor: Carillion  
Products: Kawneer 50mm and Structural Glazing Curtain Wall, Entrance, French and Swing Doors



"The building envelope at The Hub is simple and elegant in design so the detailing and quality of specified materials was very important. The Kawneer products were selected for their high quality performance and sightlines."

"These, in conjunction with the glass specification, also enabled us to achieve the required Eco Homes rating, thus providing highly sustainable homes for future generations."

Nicola Hopwood - Glenn Howells Architects

## Islington Wharf, Manchester

Incorporating almost the entire range of Kawneer systems, Islington Wharf in East Manchester is a landmark development - not least for its sustainability.

Focus of the scheme is a striking 21-storey tower in sandstone and 'Teku bronze' copper, with Kawneer curtain walling helping it - and the entire development - achieve a 'Very Good' Eco Homes rating.

Architect: BroadwayMalyan Architects  
Main Contractor: Laing O'Rourke  
Products: Kawneer 50mm Curtain Wall, Casement Windows, Framing System, Entrance, Tilt Slide and Swing Doors



## Halo Tower, Stratford, London

Ardmore Construction are currently installing a mixture of Kawneer unitised and traditional curtain walling on one of the tallest residential buildings to be built in London.

The 43 storey Halo Tower, consisting of more than 700 one- to four-bedroomed apartments and penthouses, will offer panoramic views over The City and Olympic Park.

Architects: KDS Associates  
Main Contractor: Ardmore Construction  
Products: Kawneer Unitised and 65mm Curtain Wall



"Natural ventilation to each living space and bedroom is provided by purge ventilators located behind aluminium perforated screens running the full height of the tower."

KDS Associates