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CI/SfB	(21·4)+(31) Xh4



comar

ARCHITECTURAL ALUMINIUM SYSTEMS

Company Overview



complementing architecture

company overview...

The Parkside Group

The Parkside Group incorporates Comar Architectural Aluminium Systems, AXIM and DUCO.

This provides a unique opportunity for specifiers and fabricators to rely on a single source for architectural aluminium systems, hardware and ventilation control products.

Comar

Comar Architectural Aluminium Systems is the largest British, privately owned aluminium systems company in Europe.

Comar designs, extrudes and distributes over 700 integrated profiles to a Nationwide approved fabricator network for use in aluminium ground floor treatment, window, door and curtain walling applications.

Comar has built its reputation on delivery; over £3m of mill, white polyester powder coating, silver, bronze and anodised profiles are kept in stock. This means that 99% of orders are fulfilled by our customers weekly delivery.

Brise Soleil

Brise Soleil provides architects and specifiers with the opportunity to create facades of distinction.

Brise Soleil integrates fully with Comar 6 Curtain Walling and can also be hung from the building envelope to provide shading over windows and doors.

Three systems are available which include under-slung, over-slung, inframe, pitched, aero-foils, moveable blades and aero-foils that follow the path of the sun.

Ventilation

A range of trickle vents with acoustic options and in-frame window ventilators that provide maximum air-flow, directed upward to avoid draughts and discomfort and weather rating of up to 900 pa. All provide vandal resistance.

Grilles & Louvres

Grilles and Louvres allow air flow through walls, partitions, ducts or doors and to fully co-ordinate with the project, can be finished in a variety, of colours. Grilles and Louvres can also provide directional air flow and volume control. The Comar-DUCO range includes a variety of bespoke shapes and sizes for different conditions, such as offices, high abuse and exposure areas. The range expands to large scale projects, such as continuous louvre walls and doors.

AXIM

As part of the The Parkside Group, AXIM supply a full range of architectural hardware including: concealed transom closers, floor springs, surface mounted closers, flush bolts, panic exit devices, handles, letter plates and other ancillary items.

The Comar Climate Active Façade

In a direct response to L2 legislation, The Parkside Group offers the Comar Climate Active Façade. The building envelope and Brise Soleil act as a membrane that provides solar shading in the summer months, preventing over-heating and, in the winter, solar gain to heat the building.

Creating a Comar Climate Active Façade involves consultation from the design stage with Comar Project Consultants to select the Brise Soleil which suits the building type, the building orientation and the calculations necessary to complete the project.





Nationwide Architectural Specification Team

Comar Architectural Aluminium Systems have a Nationwide team of architectural advisors, who specialise in providing architects and specifiers with project support and NBS specifications.

Nationwide Approved Fabricator Network

Once Comar has been specified, a Nationwide network of approved fabricators ensures the successful completion of projects. Your Comar architectural advisors can provide fabricators who specialise in commercial, new, refurbishment or public building work.



Technical Back-up & Training

At every stage of the tender process, Comar's Technical Department provide support and advice. Staffed by CAD design engineers, new profiles, design drawings and calculations can be obtained.

To ensure the highest levels of fabrication and installation expertise, Comar offer a range of industry accredited and in-house training courses.



Groundfloor Framing		Doors	
Comar 1	Single Glazed GFT	Comar 7	Doors, Folding, Sliding, Swing, Rebated & Pi Thermally efficient doors.
Comar 2	Double glazed GFT	Windows	
Comar 4	Single Glazed GFT	Comar 5	Windows, 45mm, 50mm & 60mm Pi Thermally efficient.
Comar 8	Fin/Bead GFT	Window Walling	
Curtain Walling		Comar 2	Feature Wall Window Walling, Thermally Broken.
Comar 6	Curtain Walling, Stick Build & Ladder frame, Square Cut & Step Cut.		

...comar reassurance



commercial

Statement of function is the key element of commercial building design. From designing industrial units to corporate headquarters the flexibility of Comar Aluminium Systems allows integration with panel systems and provides curtain

walling with opening vents and windows in a variety of configurations. Comar can powder coat the aluminium system to your RAL, BS or Syntha Pulvin colour to complement the façade.



Project:	Dukes Industrial Park
Architect:	G.R. Mullendor
Contractor:	Rooflight
Fabricator:	Rooflight
System Used:	Comar 5, 6 & 7
Location:	Chelmsford



Project:	Brooke House
Architect:	D. M. W. R
Contractor:	Mowlems
Fabricator:	Magnum Aluminium Products
System Used:	Comar 6
Location:	Woking

retail

Inherent strength and slim sight-lines make Comar aluminium the specification product of choice for all retail outlets. Comar offers extensive systems which integrate to provide aesthetic appeal to potential retail customers.

Step through Comar 7, an extensive range of sliding, automatic, folding or swing doors. Overhead Comar 6 creates sloped, pitched or barrel vaults which cast light throughout the retail complex or outlet. Comar 1, 3, 4 & 8 integrate with Comar 7 to provide ground floor framing with various angle returns and height capability. Comar 6 curtain walling houses the envelope with a variety of cover caps which complement panels and glazing.



Project:	Killingworth Centre
Architect:	W.C.E.C Architects
Contractor:	Kier Northern
Fabricator:	North Eastern Glass
System Used:	Comar 1, 3, 6 & 7
Location:	Killingworth, Newcastle



Project:	Marks & Spencer
Architect:	Holder Mathias Architects
Contractor:	Mowlem
Fabricator:	RPM Shopfronts
System Used:	Comar 6 & Comar Brise Soliel
Location:	Brigend, Wales

education & public buildings

Comar have worked in conjunction with Local Authorities to design specific products for use in the education and public building sector. The nature of public building construction demands cost effective, robust solutions. Comar 2 is a cost saving alternative to curtain walling, creating glazed façades for

medium rise buildings, stairwells and entrances. Comar 2 integrates with Comar 5 windows with espagnolette locking handles to provide security and Comar 7 Doors with anti-finger traps to provide safety. Comar's integrated systems ensure a cost effective, aesthetic façade with security and safety as standard.



Project:	Bournemouth University
Architect:	Saunders Architects
Contractor:	Raymond Brown
Fabricator:	Accurate Glass & Glazing
System Used:	Comar 6, 7 & Comar 5 Top-swing
Location:	Bournemouth



Project	Ormskirk School
Architect	Lawray Partnership
Contractor	Birse Construction
Fabricator	Alcoplan
Systems Used	Comar 5P.i, 6 and 7
Location	Lancashire

leisure

The pursuit of leisure activities is now a major part of British culture. Buildings for leisure, such as sports stadia, leisure centres and community centres, must attract all sections of the public providing accessibility, function and visual appeal. Comar's aluminium systems, due to their inherent integration, provide comprehensive façade solutions as well as robust sections for high usage leisure facilities.



Project:	St. Ives Leisure Centre
Architect:	Burke, Rickhard & Associates
Contractor:	Keir Western
Fabricator:	Alan Spear Ltd
System Used:	Comar 2 & 7
Location:	St Ives Cornwall



Project:	Cambridge City Football Club
Architect:	Sharman Knowles Partnership
Contractor:	Carlton Builders
Fabricator:	P.A.G.E. Group
System Used:	Comar 5lt
Location:	Cambridge

window walling



Comar 2 Window Walling was developed, in conjunction with Local Authorities, to provide a cost effective alternative to low rise curtain walling. The close development of Comar 2, with Local Authorities, has resulted in over £100M of completed projects and the system is now the market leading window walling system in the UK. Comar 2 is a versatile window walling system, which provides slim sight lines for use in entrances, stairwells and medium rise applications.

comar2

For the most demanding design briefs, profiles are designed for maximum strength to weight ratios and special high span mullions are available. Comar 2 is available in a two part channel and plate mullion which clip together to form 100mm x 45mm or 100mm x 30mm box section with co-ordinating 98mm transoms.

The versatility of Comar 2 includes 3-way glazing profiles, 90° and 135° corners and variable angle facades.

Comar 2 incorporates a wide range of beads which means that panels and glass from 4mm to 71mm can be glazed, either internally or externally.



Thermally broken, Comar 2 integrates with Comar 5 to provide tilt and turn, pivot, side hung, top and bottom hung opening vents. For a full façade solution the comprehensive range of Comar 7 doors can be incorporated. Doors can be operated by overhead, concealed closers incorporating an anti-finger trap for protection. If automatic doors are required, Comar's unique door beams offer aesthetically pleasing finished applications.

Performance & Standards

In absence of a British Standard for framing systems, Comar 2 conforms to industry standards adopted by trade associations such as CWCT and elements of BS 4873.



curtain walling

Creating façades of distinction, coupled with design reassurance from the first stroke of the pencil, is often the desire of even the most innovative practice. Comar 6 and Comar 6EFT deliver the capability.

With an extensive range of profiles and accessories, Comar 6 and Comar 6EFT is one of the most comprehensive curtain walling ranges on the market today.

Minimalist lines through sheer glazed façades is a design requirement. Comar 6 and Comar 6EFT have been developed to provide specifiers with a range of transoms and mullions with a 50mm sight-line. Where the façade demands multi-storey spans and performance, a range of high lxx value mullion and transoms achieve the design brief, keeping the same 50mm sight-line.

Comar 6EFT suite includes options for 4-sided structural glazing; 2-sided structural glazing with horizontal or vertical capping and concealed vents.

Performance & Standards

Air permeability	Pass 750Pa
Water tightness	Pass 750Pa
Wind Resistance	Pass 2400Pa
Tested to BS 6375 Part 1	
Tested to CWCT Standards	



For faceted curtain walls, corner mullions are adjustable from 15° to 145° in Comar 6 and from 7.5° to 165° in Comar 6EFT. This means that roof-glazing applications, such as barrel vaults, pyramids and sloped glazing, can be achieved.

Two forms of constructions are available: stick and ladder frame.

The transoms can be square cut or step cut, the latter providing a true mullion drained system.

Glass, mirrored, tinted or opaque, provides the façade with feature and distinction; incorporating panels can also add to the façade. To allow panels and glass of different widths to integrate into the same curtain wall, without the need to step-cut, Comar have specifically designed a range of gaskets and pressure plates to provide glazing options from 3mm to 50mm.

Comar 6 and Comar 6EFT develop with the demands of design: new profiles are continually added and tested to the highest standards. This approach delivers the most innovative design brief coupled with reassured performance.

COMAR 6EFT

windows

The Comar 5 aluminium window range is designed to take into account the needs of the users of aluminium window systems now and in the future.

The users are the designing specifiers and architects who care about delivering an aesthetic solution with long term performance, the fabricator who wants systems that are economical, easy to fabricate and delivered on time and, finally, the end user who wants a building that will stand the test of time.

Comar 5 has three high performing suites, ensuring that even the most demanding project can be completed from a single source.

The Comar 5 range includes all window configurations, such as: side-hung, bottom-hung, top-hung, horizontal and vertical pivot, tilt and turn, top-swing reversible and sliding windows. Comar 5 integrates with all Comar products to provide doors and opening vents to window walling, curtain walling and ground floor treatment.

Comar 5 is Document L compliant and available in 3 profile widths: 45mm, 50mm, 60mm with glazing options from 4mm to 45mm.

The 60mm system, Comar 5Pi, is a polyamide system that provides exceptional thermal efficiency for applications where accurate u-Value trade-offs are required.



Comar 5Pi keeps a building warmer for longer as it actively reduces heat loss. This provides an intrinsic benefit for clients due to the long term reduction in energy costs.

Comar 5 offers outstanding weather performance, exceeding the requirements of the very latest weather tightness tests: BS ENs 1026, 1027 & 12211.

Performance & Standards

Comar 5	
Air permeability:	Pass 600Pa
Water tightness:	Pass 600Pa
Wind resistance:	Pass 2400Pa
Tested to BS 6375-1	

comar5



Def:- P.i./n/ :- (1) Polyamide Insulation.

(2) Comar Architectural Aluminium's new range of thermally efficient polyamide insulated windows and doors. (3) Architectural aluminium products with added P.i to achieve the requirements set out in documents L1 & L2. (4) The ability of suppliers to provide accurate u-Value calculations, to perform trade-offs for whole building thermal efficiency.

(5) Environmentally friendly product, incorporating all the recyclable and sustainable elements of aluminium. (6) Trade-mark The Parkside Group.



doors

Comar 7 is the specifier and installer preferred aluminium commercial door system throughout the UK.

The extensive profile range, designed specifically for ease of fabrication and installation and developed for bespoke projects, provides combinations such as sliding, folding, rebated, swing, Armoured Glass (A.G.) and pivot doors.

Three ranges are available: Comar 7, Comar 7 high performance Tempest and Comar 7Pi polyamide doors. Comar 7Pi provides durability and maximum thermal efficiency that exceeds the requirements of Document L.

Comar 7 is face drained and has a variety of drained or non-drained thresholds, including low ramp thresholds to comply with the latest building regulations such as the Disability Discrimination Act (D.D.A.).

With an extensive range of door stiles with sight lines ranging from 28mm to 110mm and rails from 10mm to 200mm, that can be internally or externally beaded, Comar 7 provides the capability to achieve durability, performance and visual appeal.

These profile options allow construction of combinations of single leaf doors up to 1200mm wide and 2300mm high. However, dependent on the location, glass type, hardware and door type larger configurations, such as vehicle access, sliding doors can be manufactured. Please contact Comar's Technical Department for advice on specific projects.

Doors can be glazed with panels or glass up to 51mm.



Comar 7 has developed over 30 years to provide solutions; evidence of this lies in its unique Automatic Door Beams. These door beams are a single extrusion that support automatic door gearing. They offer maximum strength whilst enhancing the appearance of sliding or swing doors by reducing the need for unsightly aluminium panels and timber packing. Comar 7 Auto Door Beams have been designed to accept virtually all types of bolt-on operating gear.

Comar 7 integrates into Comar's ground floor framing, curtain walling suites and couples to window suites to provide fixed and opening fan and side light options

Comar 7 Tempest doors have exceeded the requirements of BS 6375 reporting no water leakage at 1200 pa.

Comar 7 utilises AXIM architectural hardware. The AXIM range includes transom closers, panic devices, flush bolts, letter-plates, locks, paddle handles, lever handles which can be delivered in a variety of finishes, including co-ordinating polyester powder coating. Therefore, from a single source, Comar 7 offers a complete solution.

Performance & Standards

Air permeability:	Pass 600Pa
Water tightness:	Pass 1200Pa
Wind resistance:	Pass 2000Pa
Tested to BS 6375 Part 1	

comar7

ground floor framing

Comar's four integrated suites of ground floor framing provides distinctive single storey framing to schools, retail outlets, shopping centres and corporate headquarters.

Whether it's a single storey building that's curved and angled, with large expanses of glazing, such as a car showroom or an entrance to provide a focal point to the building, Comar's extensive range of ground floor framing systems contain variable angle corners and three way glazing options with high lxx value transom and mullions to ensure that maximum spans can be achieved.

To complete the envelope the four suites integrate with Comar 7 high performance doors and Comar 5 windows to provide opening lights.

Comar 1 and Comar 3 are single and double glazed ground floor framing suites. A two part channel and plate mullion clip together to form a 100mm x 45mm box section enabling modular sash construction. Both systems include 3-way glazing option, corner profiles to allow 90° and 135° returns, variable angle corners with special beads and carriers to accommodate glass and panels from 4mm to 36mm.

Comar 4 is a 45mm x 45mm system which integrates fully with Comar 1 and is often the perfect solution for partitions or less demanding façade work. Glazing pockets suit 4mm to 13.5mm glazing and a wide range of profiles and components are available to support aluminium or timber doors.



For traditional fin and bead systems, Comar 8 provides a fast and cost effective store frontage.

Performance & Standards

In absence of a British Standard for framing systems, Comar 1, 3, 4 and 8 conforms to industry standards adopted by trade associations such as CWCT and elements of BS 4873

comar1,3,4,8



aluminium sustainability

Today's world calls for us all to be more conscious of our environment. In 1998 the world recognized this by signing the Kyoto Agreement. The Kyoto Agreement directly affected the construction industry by demanding that buildings become more thermally efficient. With these demands longevity, thermal efficiency, sustainability and recyclability are now critical factors in construction.

Why Aluminium...

Aluminium provides a unique solution for today's construction needs. Aluminium is light, strong, durable and flexible which provides tremendous potential for achieving even the most demanding design brief. Two-thirds of the energy required to extract aluminium is supplied by environmentally friendly, hydroelectric power. Couple this with the recyclability of aluminium, and aluminium is the ideal choice for windows, doors and facades.

Sustainability...

The recycling process now produces high quality aluminium, which is very cost effective and can be carried out on an indefinite number of occasions without impairing the quality in any way. It is a very durable material and has very low maintenance requirements, therefore reducing the whole-life cost. It is long lasting and can withstand the ravages of the most extreme conditions. Aluminium is an excellent material to use in marine and coastal environments, as the effect of sodium chloride is minimal.

Sustainability concerns are alleviated by the knowledge that we have at least 300 years of known reserves of the raw material, Bauxite, and this does not allow for the fact that 70% of all aluminium used is recycled at the end of its product life.

Thus, with ever increasing proportion of re-cycled material in use, aluminium can be accurately described as the ultimate sustainable material.

Longevity...

Unlike some alternative building materials, aluminium offers an almost unlimited life expectancy. A notable example of this is the Statue of Eros in London's Piccadilly Circus, which has only just been cleaned and renovated, and The Empire State Building, the latter being the first building to use anodised aluminium. Aluminium does not age like other organic materials and needs no protection from ultra-violet light. Aluminium can be polyester powder coated or anodised to a variety of colours, which enhances the material's natural durability. Comar's powder coater's guarantee their finishes for 25 years and anodiser's for 30 years.

Recycling Check list

"The recyclability of aluminium – one of its unique properties along with strength, durability and corrosion resistance – has led to its increased use in construction over recent years. Used aluminium is valuable and is easily and endlessly recycled without quality loss. The material is very rarely 'lost' entirely because of this."

Important issues to note are:

The quality of aluminium is not impaired by endlessly recycling

Re-smelting aluminium saves up to 95% of the energy needed to produce the primary product

It is the most cost-effective material to recycle

The overall market for used aluminium is steadily growing, so the more aluminium there is in a product, the more chance it has of being re-cycled

The recycling rate of used aluminium products in building is over 80% (over 95% in transportation and 30% in packaging)

30% of the 1.9 million tonnes of aluminium used in Europe in 1997 came from recycling

Source: Council for Aluminium Building and European Aluminium Association.

standards

BS EN ISO 9001 :	Comar is an ISO 9001 registered firm, certificate number: A0852
BS-EN 755:	Aluminium alloy extrusion
BS EN 485:	Aluminium alloy sheet
BS-EN515:	Aluminium and aluminium alloys – Wrought products temper designations
BS 4255 Part-1 :	Gaskets
BS-EN573-3:	Aluminium and aluminium alloys – Chemical composition – Wrought products – part 3
BS-EN755-2:	Aluminium and aluminium alloys – Extruded profiles – part 2: Mechanical properties.
BS-EN755-9:	Aluminium and aluminium alloys – Extruded profiles – part 9 : Profile tolerances.
BS-EN12020-1 :	Aluminium and aluminium alloys – Extruded precision profiles – part1 : inspection and delivery
BS-EN12020-2:	Aluminium and aluminium alloys – Extruded precision profiles – part 2 : tolerances on dimension and form.
BS 4873:	Specification for aluminium alloy windows.
BS 6375 Part 1 :	Classification for weather tightness.
BS 368:	Method of testing windows
BS 5713:	Hermetically sealed flat double glazed units
BS 6262:	Code of practice for glazing of buildings
BS 6496:	Specification for powder organic coatings to aluminium alloys for external architectural purposes
BS 1615:	Method of specifying anodic oxidation coatings on aluminium and its alloy
BS 3987:	Specification for anodic oxide coatings for external architectural purposes
BS 6399 Part 2:	Code of practice for wind loads
C.W.C.T.	Centre for Window & Cladding Technology

Comar Approved Fabricator

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