

Architectural Glazing Systems

Marlon Clickfix Marlon Toploc





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OUR REPUTATION

With over 60 years' experience, Brett Martin has earned a global reputation for the quality and performance of its Marlon polycarbonate glazing, cladding and roofing solutions in architecture.

Using this expertise, Brett Martin has extended this experience into the design and development of the Marlon Architectural Polycarbonate Glazing Systems.

The Marlon range of Architectural Polycarbonate Glazing Systems are manufactured in Brett Martin's own UK based BSI quality approved factories, powered by 50% renewable energy, to meet and exceed the latest industry and legislative requirements.











Next level sustainability, available now

Specify the Marlon BioPlus option to reduce the embodied carbon in your project.

By switching from fossil based PC to resins certified as being produced from 89% bio-circular attributed material via mass balancing, we can offer Polycarbonate sheets with dramatically reduced impact on the environment.

The effect of using climate neutral resins in sheet manufactured with 100% renewable energy significantly reduces the embodied carbon associated with these systems.



ISCC PLUS certified. Climate neutral, bio-circular attributed resin.

Replacement of fossil based raw material.

Renewable energy used in resin and sheet production.









Versatility in Design

Offering flexibility and freedom in design and application, our range of architectural polycarbonate glazing systems provide solutions for vertical, pitched or curved applications.

Create stunning seamless façades up to 12m in unlimited lengths with continuous corners. Cold curve on-site to make a dramatic curved rooflight with standing seam feature. Transform a dull internal space by incorporating a glazing system that floods the building with natural daylight by day and transforms into a striking lightbox at night.

Building designers can create contemporary architectural statements in schools, industrial buildings, leisure and retail facilities with imaginative use in façades, rooflights, rainscreens and canopies.

Application Type





Rooflight



Vertical Facade

Curved Rooflight

Surface Finish



Flush Finish



Standing Seam Finish





Up to 74%
Light Transmission

Our architectural polycarbonate glazing systems have been designed to achieve optimal solar performance. The translucency of the polycarbonate panels provides a quality diffused light transmission devoid of solar glare for even light distribution and visual comfort. What's more, light transmitting and thermal properties combine to control solar gain for a comfortable thermal environment.

Energy Saving

Our architectural glazing panels are manufactured from premium multiwall polycarbonate with insulating internal walls. This means there is significantly less thermal conductivity in the panel resulting in a lower U value for a more energy efficient building.

This is further enhanced by the energy saving benefits of natural daylight. By admitting natural daylight into a building, our range of Marlon Architectural Glazing Systems reduce the need for artificial lighting. So when used with lighting controls the systems can assist in reducing the energy consumption of a building even further.

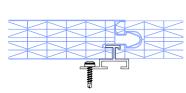
Choose from Marlon Clickfix 40mm 10wall panels for a U-value of 0.99 W/m²K or Marlon Toploc 16mm 7wall panels for a U value of 1.78 W/m²K.

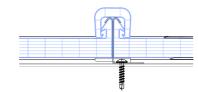
U 0.99W/m²K

U 1.78W/m²K

Marlon Clickfix 40mm

Marlon Toploc 16mm

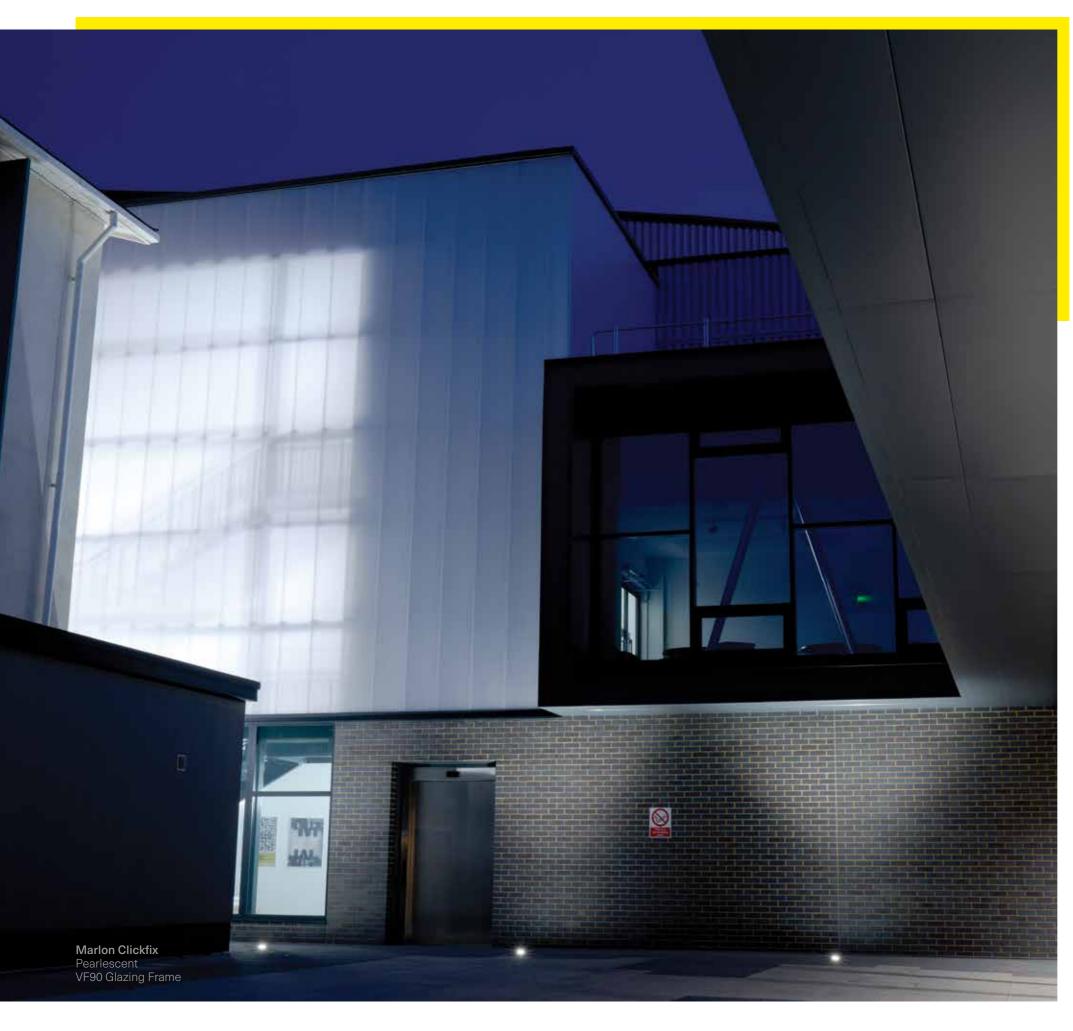












The Complete Glazing Solution

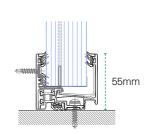
Our choice of installation accessories and glazing frame systems fully complement our multiwall modular glazing panels to provide the complete architectural glazing solution.

Custom made clips and brackets secure the panels without the need to fix directly through the panel, allowing for free thermal movement. Standard side and edge profiles are available for straightforward installation of our 16mm 7wall panels. For installation requiring the support of a glazing frame system there are two options:

VF55

VF55 Glazing Frame System

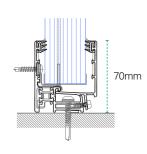
Façades up to 6m



VF70

VF70 Glazing Frame System

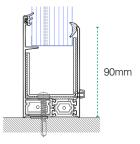
Façades up to 8m



VF90

VF90 Glazing Frame System

Façades up to 12m







Design Consultancy

For specialist projects our Design Consultancy Service provides expert advice throughout the design and construction phase, from CPD presentations, technical design meetings, and on-site installation training, therefore early involvement is key. From initial sketch designs with an Architect, or a material change proposa from a contractor, we can help develop projects using a pragmatic approach to material suitability, aesthetic design, and construction feasibility.

UMFS SPORTS HALL, ICELAND

Project

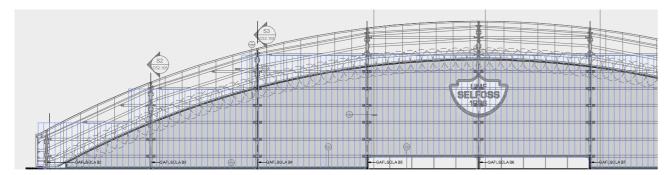
New construction of a multi-use sports hall in at UMFS's site in Selfoss, Iceland

Solution

1300m² of glass clear Marlon Clickfix to glaze both curved end gables of the building

Architect

Alark Architects ehf.



BELFAST WATERFRONT, UK

Project

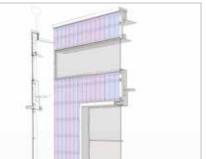
£29.5m extension which includes conference and meeting facilities

Solution

1750m² of Marlon Clickfix wrapped over 150m long riverfront façade

Architect TODD Architects





CARDIFF ICE ARENA, UK

Project

Building redevelopment project

Solution

450m² of Marlon Clickfix in irregular shapes on the walls

Architect

Scott Brownrigg





DUQM AIRPORT, OMAN

Project

Construction of passenger terminal at Duqm Airport

Solution

Blue Marlon Clickfix applied on 37m Air Traffic Control Tower

Architect

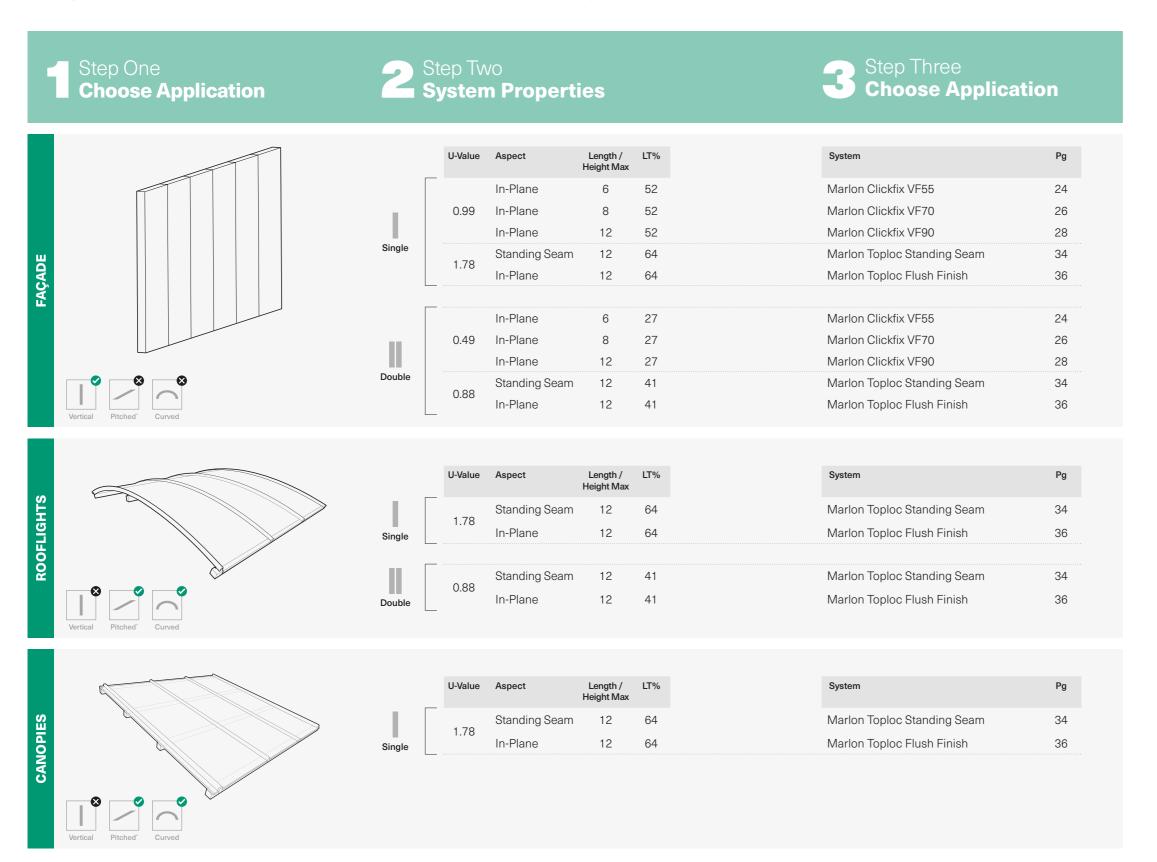
Hamza Associates





System Selector

Loading Specification: Please consult our Technical Department for project specific loading design advice.



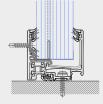
Note: Spanning capacity is deflection limited and derived from support method, consult system pages for load tables.

Range of Systems

Marlon Clickfix VF55

Size

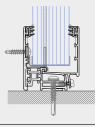
- 40mm Tenwall
- · Cover width 500mm
- Vertical facade · Installations up to 6m



Marlon Clickfix VF70

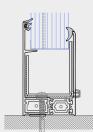
Size

- 40mm Tenwall
- · Cover width 500mm
- Vertical facade
- · Installations up to 8m



Marlon Clickfix VF90

- 40mm Tenwall
- Cover width 500mm
- · Vertical Facade
- Installations up to 12m



Marlon Toploc

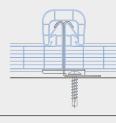
Standing Seam

Size

· 16mm 7wall

· Cover width 600mm

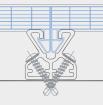
Marlon Toploc panels are also available in 8mm 4wall. See page 32 for details.



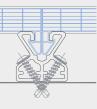
Marlon Toploc

Flush Finish

- 16mm 7wall
- · Cover width 600mm



also available in 8mm 4wall See page 32 for details.



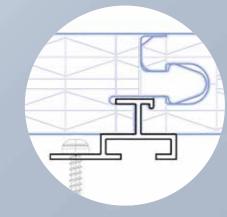


Marlon Clickfix

This 40mm interlocking modular polycarbonate panel, used in vertical applications to create dramatic seamless façades, comes with a choice of glazing frame options. Choose from the VF55, VF70 or VF90 glazing frames to suit application.

Aluminium Clip -

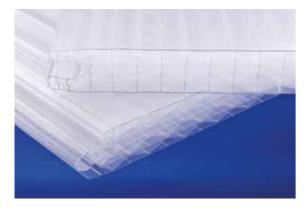
Marlon Clickfix Interlocking Polycarbonate Panel



Marlon Clickfix

Also Available

Marlon BioPlus %





Key Benefits

- 40mm 10wall modular polycarbonate glazing system
- Create dramatic seamless façades and continuous corners
- Thermally insulating, U value 0.99 W/m²K
- Superb spanning capabilities
- Suitable for vertical façades and partitions

Light Transmission

Colour	LT	SHGC	SC
Clear (S)	52%	0.42	0.48
Clear LE (g)	52%	0.42	0.48
Pearlescent (PW)	44%	0.28	0.32

Special colours and colour matching available on request. Minimum order quantities apply.

Panel Details & Properties

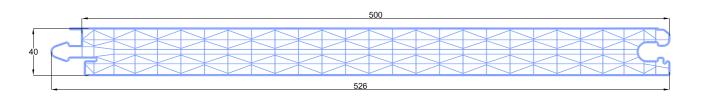
Panel Thickness	40mm
Panel Structure	10wall
Modular Width	500mm (nominal)
Overall Width	526mm (nominal)
Maximum sheet length	12m
Thermal Insulation	0.99W/m ² K
Weight	4.3kg/m ²
Fire Performance	B-s1,d0 to EN13501-1
Minimum Cold Curving Radius	Contact Technical Department
UV Protection	Single or double sided
	O

Spanning Detail

Load (kN/m²)	Span (m)
0.5	2.37
1.0	1.99
1.5	1.74
2.0	1.39

All figures relate to double spanning, for additional information please contact the technical department.

Panel Structure & Dimensions



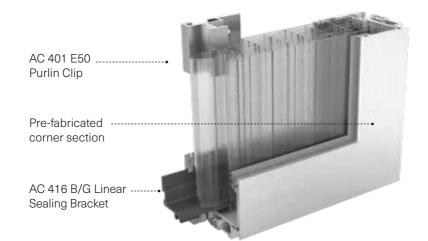


Marlon Clickfix VF55

Installation Façades up to 6m (VF55 Glazing System)

Key Features

- Discrete 55mm profile for facades up to 6m
- Unique patented two part glazing profile system
- Glazing panels sit into system without rotation
- Water managed via hidden drainage channel
- Pre-formed 90° corners
- · Same profile across all orientations



System Components



AC 412 A/4 Internal Profile

AC 422 A/4 Internal Profile (thermally broken)



AC 413 A/2 External Profile

AC 413 A/2/D External Profile with drainage holes



AC 415 B Linear Bracket



AC 414 'P' Plate Gasket



AC 416 B/G Linear Sealing Bracket



AC 401 E50 Purlin Clip (50mm)



PST CF 1040 Marlon Clickfix Panel



AC 421 A 90° Internal Corner

AC 424 A 90° Internal Corner (thermally broken)



AC 420 'E' Gasket



AC 418 SS Corner Bracket



AC 419 Alignment Bracket

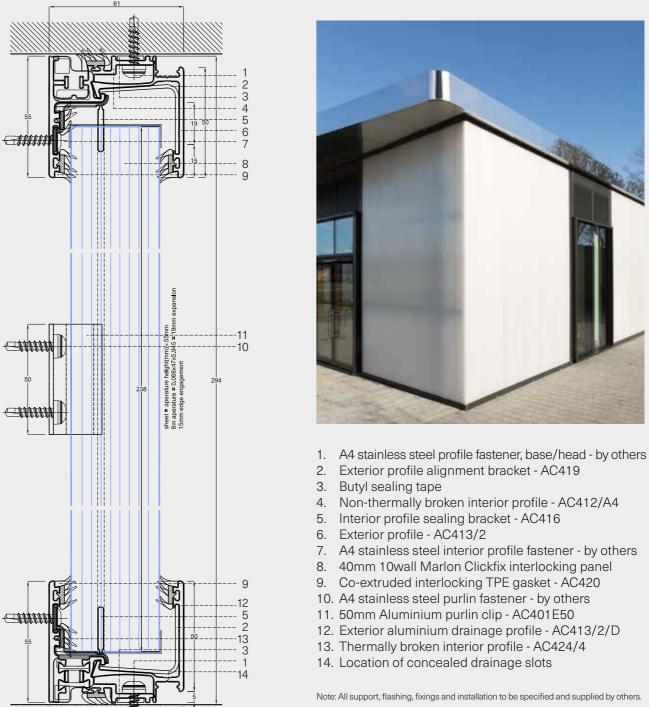


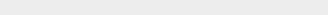
AC 406 E Sealing Tape

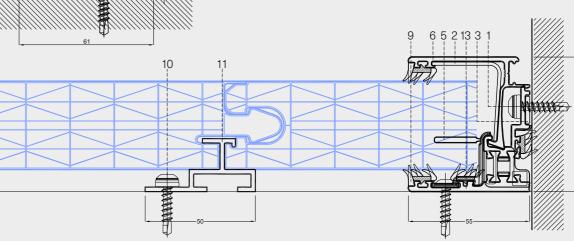


AC 407 E Ventilating Tape

INSTALLATION DETAILS







Marlon Clickfix VF70

Installation Façades up to 8m (VF70 Glazing System)

Key Features

- 70mm profile sight light allowing longer facades up to 8m
- Two part glazing profile, registered design
- Thermally broken
- · Simplified installation sequence
- Fixed through base or direct to purlin
- Shared coextruded high temperature dynamic grey TPV gasket (Santoprene)
- Water managed and drained via hidden slot in shadow gap
- Reinforced pre-formed 90 degree corners
- Same profile used in all orientations

System Components



AC445 Internal Profile



AC446 External Profile



AC 415 B Linear Bracket



AC 414 'P' Plate Gasket



AC 416 B/G Linear Sealing Bracket



AC 401 E50 Purlin Clip (50mm)



PST CF 1040 Marlon Clickfix Panel



AC 421 A 90° Internal Corner AC 424 A

90° Internal Corner (thermally broken)



AC 450 **TPV** Gasket



AC 418 SS Corner Bracket



AC 451 SS Corner Angle Bracket



AC 460 SS Alignment Bar

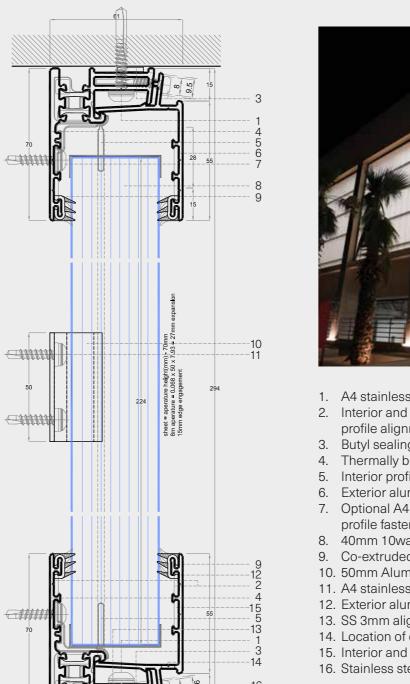


AC 406 E Sealing Tape



AC 407 E Ventilating Tape

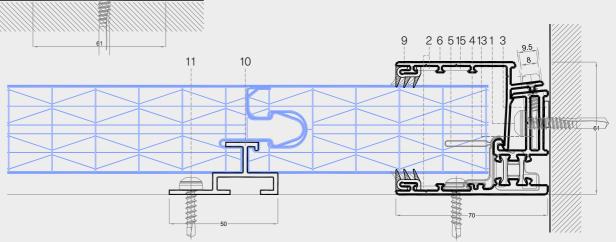
INSTALLATION DETAILS





- 1. A4 stainless steel profile fastener by others
- 2. Interior and exterior stainless steel profile alignment bracket
- 3. Butyl sealing tape
- 4. Thermally broken interior profile
- 5. Interior profile sealing bracket
- 6. Exterior aluminium profile
- 7. Optional A4 stainless steel interior profile fastener - by others
- 8. 40mm 10wall Marlon Clickfix interlocking panel
- 9. Co-extruded interlocking TPV gasket
- 10. 50mm Aluminium purlin clip
- 11. A4 stainless steel purlin fastener by others
- 12. Exterior aluminium drainage profile
- 13. SS 3mm alignment bar
- 14. Location of concealed drainage slots
- 15. Interior and exterior stainless steel corner bracket
- 16. Stainless steel fastener by others

Note: All support, flashing, fixings and installation to be specified and supplied by others.



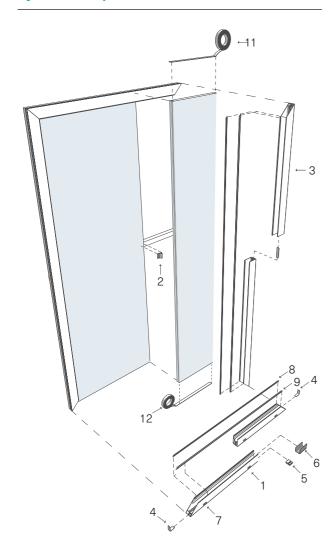
Marlon Clickfix VF90

Installation Façades up to 12m (VF90 Glazing System)

Key Features

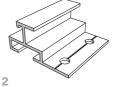
- 90mm deep profile increases void for polycarbonate thermal expansion allowing façades up to 12m in height
- Thermally broken U profile
- Water managed system, with machined external drainage slots
- · Coextruded TPE barbed gasket
- Sealing alignment brackets between profiles

System Components





AC 403 BMD Thermally Broken Base Profile Slotted



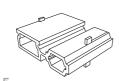
AC 401 E50 Purlin Clip



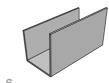
AC 402 BMD Thermally Broken, Top & Side Profile



AC 402 CCB Corner Connector



AC 402 MCB Straight
Profile Connector



AC403 BBS Butt Strap Connector



AC 403 BVCG Drainage Slot Vent Covers



AC 404 B Interior "E" Gasket



AC 405 B Exterior Wedge Gasket

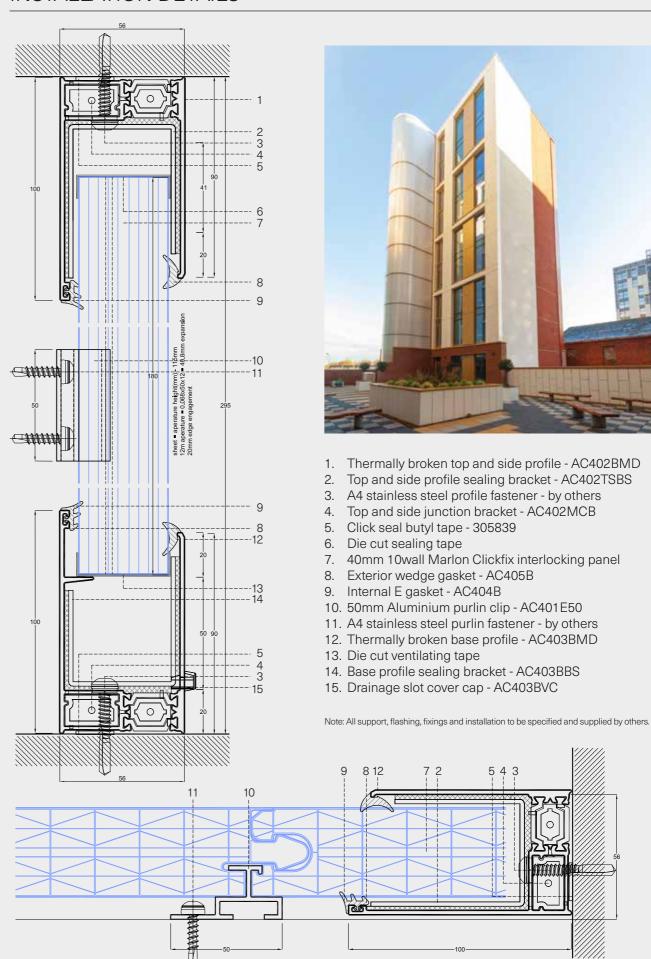


305 839 Click Seal Butyl Mastic



12 AC 407 E Ventilating Tape

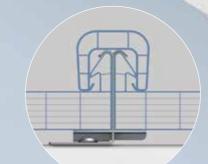
INSTALLATION DETAILS





This multiwall modular polycarbonate panel is used in two efficient glazing systems to offer either a standing seam or flush surface finish to optimise performance in both vertical and horizontal applications.



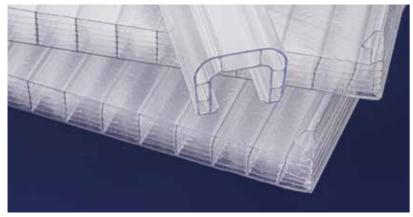


Standing Seam Finish

Marlon Toploc

Also Available

Marlon BioPlus %





Marlon Toploc is a highly versatile architectural polycarbonate glazing system suitable for use in vertical, pitched or curved installations.

The multiwall panels are extruded with an upright connecting profile that can be installed facing externally to create a stand seam feature or reversed and installed facing internally to create a seamless glazing finish.

Key Benefits

- Choice of glazing panel 8mm or 16mm
- Highly versatile system
- Can be adapted into a number of configurations
- Suitable for cold curving
- Thermally insulating multiwall panels

Panel Details

Cover width	600mm (nominal)
Non-fragility Classification	Consult technical department
Fire Performance	B-s1, d0 to EN13501-1
Recommended Min Pitch	5°
Min Cold Curving Radius	4000mm
UV Protection	Double sided as standard
Warranty	Limited warranty

Solar Transmission Properties

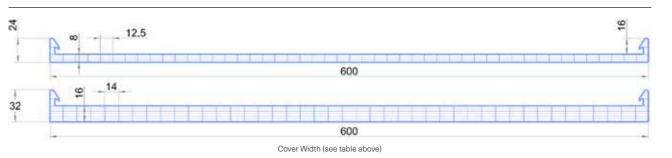
8mm Fourwall

Color	Direct Solar Transmission	Solar Energy Reflectance	Solar Energy Absorption	Solar Factor	Shading Coefficient	Solar Heat Gain Coefficient	Light Transmission
Clear	70%	18%	12%	73%	0.84	0.72	74
Bronze	41%	13%	46%	53%	0.61	0.53	30
Opal	52%	37%	11%	55%	0.63	0.54	50
Heatgaurd EG	45%	11%	44%	57%	0.65	0.56	41
Pearlescent	38%	33%	29%	46%	0.53	0.45	60

16mm Sevenwall

Color	Direct Solar Transmission	Solar Energy Reflectance	Solar Energy Absorption	Solar Factor	Shading Coefficient	Solar Heat Gain Coefficient	Light Transmission
Clear	60%	24%	16%	64%	0.74	0.64	64
Opal	35%	38%	27%	42%	0.49	0.42	37
Pearlescent	37%	33%	30%	45%	0.52	0.45	56

Panel Structure & Dimensions



APPLICATION ASSEMBLIES

	Curved Rooflight Minimum cold curving radius 4000mm	Pitched Rooflight Minimum pitch 5°	Vertical Façade
FLUSH FINISH Internal Aluminium Mullion			
STANDING SEAM External Polycarbonate Cap			Can be used with the VF55, VF70 and VF90 glazing frames.

Marion Toploc

Standing Seam System

System Components



AC 253 Polycarbonate Top Cap



5 Stainless Steel Fixings



AC 251 Polycarbonate End Cap



AC 258 8mm SS Fixing Bracket



AC 250 Polycarbonate End Cap - Short



AC 252 16mm Stainless Steel Fixing Bracket



AC 242 Aluminium U Profile



AC 043 Ventilating Tape

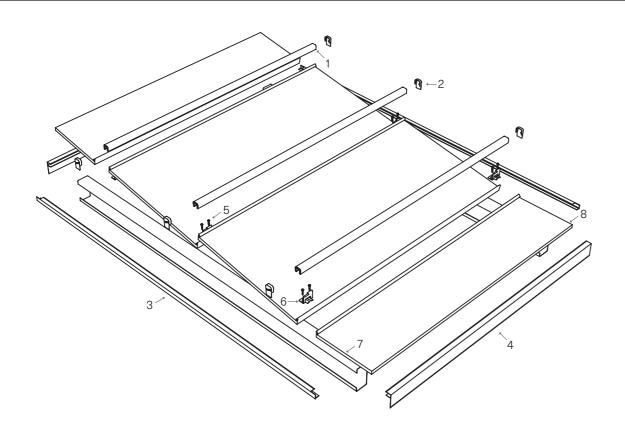


AC 241 Aluminium F Profile



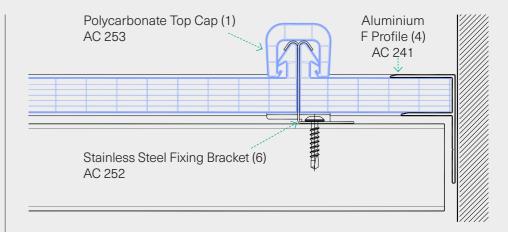
AC 041 Sealing Tape

Standing Seam Roof



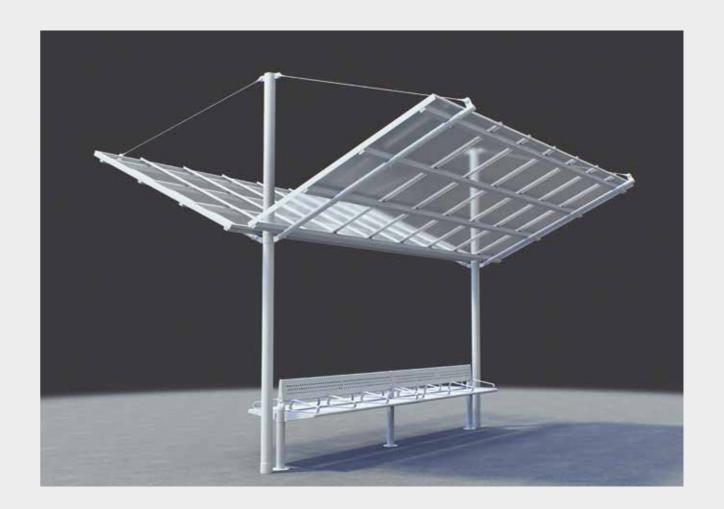
INSTALLATION DETAILS

Purlin supported with stainless steel clip and polycarbonate cap.



Spanning

It is vital that accurate wind and snow loads are used when calculating spanning details. Please contact the Technical Department for spanning details for your specific project.



Marion Toploc

Flush Surface System

System Components



AC 242 Aluminium U Profile



AC 241 Aluminium F Profile



AC 493 Aluminium Mullion



Stainless Stee Fixings

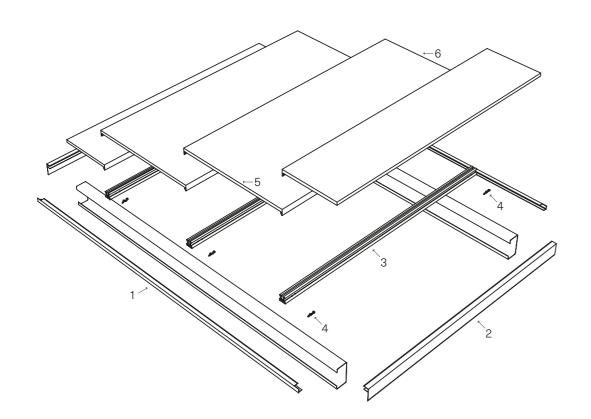


5 AC 043 Ventilating Tape



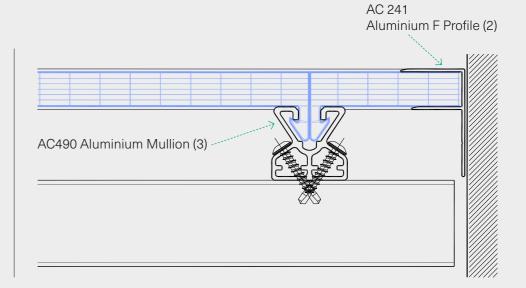
6 AC 041 Sealing Tape

Standing Seam Roof



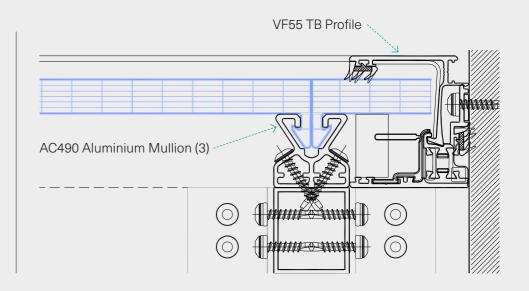
INSTALLATION DETAILS

Purlin Supported with continuous vertical aluminum mullion support at each panel junction.



SUITABLE FOR USE WITH VF55 & VF90 GLAZING FRAME SYSTEMS

Mullion Supported with secondary continuous vertical aluminum mullion support at each panel junction.



Spanning

It is vital that accurate wind and snow loads are used when calculating spanning details. Please contact the Technical Department for spanning details for your specific project.

Polycarbonate Mechanical Properties

Strength & Damage Resistance

Damage to glazing can be hazardous and expensive but our Multiwall Systems manufactured from Marlon polycarbonate offer excellent protection against hailstones, vandalism and accidental damage with an impact resistance up to 200 times greater than glass. This characteristic is maintained over a broad temperature range and prolonged service life. The Marlon polycarbonate panels will retain their physical properties in extreme weather conditions making them the ideal glazing solution for projects throughout the world. Marlon polycarbonate can withstand temperature extremes from -40°C to 100°C (-40 to 212°F) long term and up to 130°C short term. No other glazing material can offer this combination of impact resistance and wide working temperature range.

UV Protection

Our modular polycarbonate panels are co-extruded with a UV absorption layer. This protective layer prevents damaging UV radiation from penetrating the sheet for long term optical clarity and mechanical strength.

Chemical Resistance

Polycarbonate has good resistance to many chemicals (with the exception of solvents and strong alkalis) so is often suitable for use in aggressive environments.

Fire Performance

Our Marlon Clickfix and Marlon Toploc systems exhibit excellent fire performance and in the event of a fire it will soften and open, allowing smoke, heat and gases produced by the fire to escape. This 'venting' property means that damage within buildings can be limited. For details of fire ratings please contact our Technical department.

Warranty

Marlon Clickfix and Marlon Toploc are manufactured under Quality Management Systems registered to BS EN ISO 9001:2015. The panels carry a limited warranty. For full details please contact our Technical department.

Testing

Systems are designed and tested to the relevant industry standards and performance criteria. For further information please contact our Technical department.

Marlon BioPlus

Marlon BioPlus, made with bio-circular attributed resin, is available across the entire Marlon range. Its material and processing properties are identical to the standard product.

Properties		Test Method	Value	Units
	Tensile strength at yield	DIN 53455	>60	MPa
Mechanical	Tensile strength at break	DIN 53455	>70	MPa
	Modulus of elasticity	DIN 53457	>2300	MPa
Physical	Specific gravity	DIN 53479	1.20	g/m³
Thermal	Softening temperature - Vicat 'B'	DIN53460	148	°C
	Linear thermal expansion	DIN53752	6.8 x 10 ⁻⁵	m/m.K
	Maximum service temperature	Permanent	100	°C
	- no loading	Short term	130	°C

Polycarbonate General Guidelines

Sealing

It is recommended that the ends of the Marlon Clickfix and Marlon Toploc panels are sealed to minimise the build-up of moisture or dust contamination within the channels. A sealing tape, preferably aluminium, is applied at the top of the panel to prevent ingress of moisture, dust and insects. A breather tape applied to the bottom end of the panel permits air to move freely in and out of the panel, helping minimise condensation. Panels can be supplied pre-taped and cut to specific length to help reduce installation time.

Thermal Expansion

In practical terms it is necessary to allow 3.5mm per linear metre between the top edge of the panel and the glazing profile.

Cleaning

As a condition of ensuring that Marlon Clickfix and Marlon Toploc panels perform at optimum throughout their service life, it is recommended that the panels be cleaned periodically using suitable household cleaning agents as follows:

- Use lukewarm water to rinse the panels and soften dirt.
- Make up a solution of lukewarm water and ordinary household cleaner or a mild soap and use this to wash the panels.
- A sponge or soft cloth should then be used to gently remove dirt and grime.
- The cleaning process should then be repeated and the panel rinsed and dried with a soft cloth.
- For larger areas clean the surface with a high-pressure water cleaner.

Warning

Care should be taken to observe the following precautions:

- 1. Do not scrub Marlon modular multiwall panels with brushes or sharp instruments.
- 2. Avoid any abrasives or cleaners of a highly alkaline composition.
- 3. It is generally advisable in all instances to test any cleaner on a sample piece of the Marlon modular multiwall panels first and it should also be remembered that cleaners and solvents which state that they are suitable for cleaning polycarbonate may not be safe for use on the UV protective surface of the panels.





Note: Project installation and assemblies throughout the brochure are for illustration only, each project must be independently assessed and suitably specified to meet local building codes and resist all environmental loads. Contact the technical department for further information. All support, flashing, fixings & installation to be specified and supplied by others.



1747/0624

Head Office & Global Sales

Brett Martin Ltd 24 Roughfort Road Newtonabbey, Co. Antrim Northern Ireland, BT36 4RB

t: +44 (0) 28 9084 9999

f: +44 (0) 28 9083 6666

e: technical@brettmartin.com commercial@brettmartin.com

UAE

Brett Martin DWC LLC Dubai World Central Business Centre, PO Box 390667 Dubai, UAE

t: +971 52 866 5494

e: waqaskhawaja@brettmartin.com

UK & ROI

Brett Martin Daylight Systems Ltd Sandford Close Aldermans Green Industrial Estate Coventry, West Midlands England, CV2 2QU

t: +44 (0) 24 7660 2022

f: +44 (0) 24 7660 2745

e: daylight@brettmartin.com

For the latest information visit

brettmartin.com

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