



marlon *Clickfix* 1040
Polycarbonate Glazing System

INSTALLATION MANUAL

THERMALLY
BROKEN
SYSTEM

Marlon *Clickfix1040* is the complete architectural glazing system comprising premium quality, multiwall modular panels manufactured from Brett Martin's Marlon polycarbonate. The modular panels provide quality natural light, superior thermal insulation and UV protection in addition to exceptional impact resistance and an outstanding strength to weight ratio.

The modular design consists of interlocking panels which simply click and fix into place for fast and easy installation and a completely seamless façade. Marlon *Clickfix1040* is suitable for a variety of applications including roofing and cladding projects, internally and externally.

Brett Martin also supply a full range of accessories.



For full details of panel options and accessories please refer to the Marlon Clickfix1040 brochure.

Contents

	Page
General	3
Profiles	4
Panel Preparation	5
Installation Procedure	6
Finishing	8
High Openings	10
Maintenance	10
Panel Properties and Spanning	11

General

Fitting of Marlon *Clickfix* polycarbonate panels should be the last operation in completing the project. The structure should be finished with all components of the selected glazing system in place and wood preservatives, when used, thoroughly dry.

Marlon *Clickfix* panels must always be installed with the ribs running vertically or up-slope.

Safety

Panels up to 3m long can be safely handled by one person but larger panels will require two or more people. When handling panels particular care must be taken in windy conditions. Any pallets of 6 metres or longer must be lifted using a spreader beam of adequate length (with no more than 2.5m unsupported at each end) or have the panels removed by hand (one or two at a time) and re-stacked on a suitable pallet.

Storage

Store sheets on flat surfaces or wooden bearers with 100mm minimum bearing surface placed at centres not exceeding 1m. Use an opaque cover, tightly secured, to protect from wind, rain and sun until the sheets are to be installed into their final position. Storage is always preferable indoors. Store panels away from sources of heat. Do not stack other items on top of the panels.

Installation

Ensure that the clearly marked UV protected surface of the Marlon *Clickfix* panel is to the outside. About 50mm of protective film should be peeled back from the ends of the panel prior to installation and the residual film should only be removed after glazing is complete. Avoid excessive handling as this can cause scratching of the surfaces.

When required use only compatible sealants and tapes.

Clickfix panel has been proven to be suitable for use with a substantial number of commercially available glazing compounds, building materials and profile systems.

However, it is still vital that advice on chemical compatibility should be sought either from Brett Martin's Technical Department or the manufacturer of interfacing products.

NB: The following installation Guidelines are specific to the thermally broken system. For specific guidelines for the non-thermally broken system please contact the Technical Department.

Profiles

Ensure the frame to be glazed is secure and true.

Install head and sill flashings (not Brett Martin supply)

Aluminium profiles can be either flush mounted within the opening or surface mounted to the outside of the frame

Fix top, edge and base profiles with screws suitable for the frame, typically $\text{Ø}6\text{mm}$ at 0.5m centres.

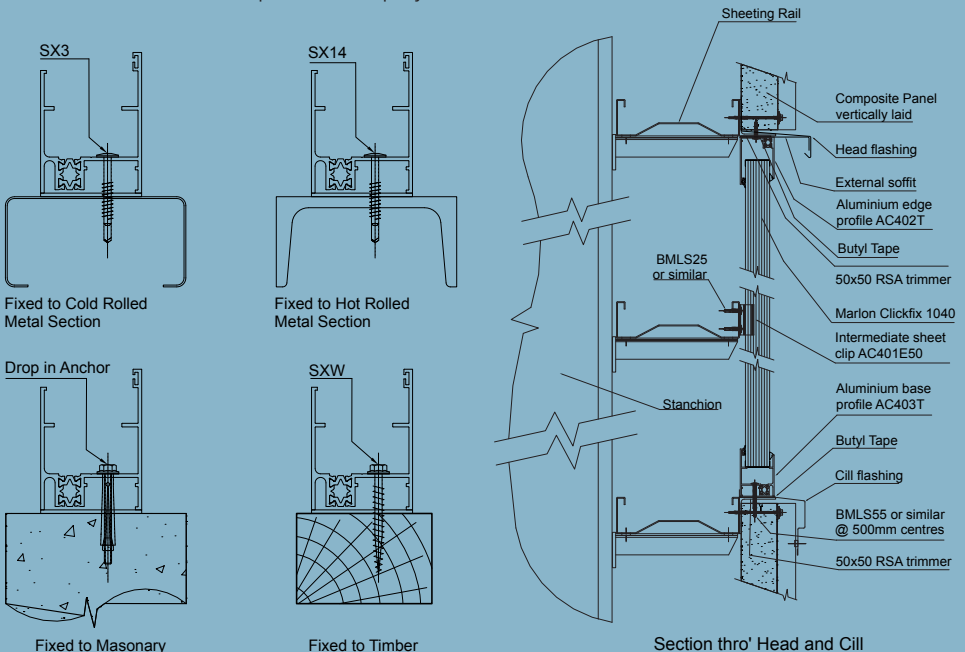
Profiles can be connected using fishplates to ensure joint alignment.

It is good practice to insert butyl tape or similar between the profile and the frame to seal the assembly.

The fixings should be either stainless steel or isolated from the aluminium profiles with a suitable washer.

Drainage holes are required $\text{Ø}6\text{mm}$ at 0.5m centres on the outside of the base profile.

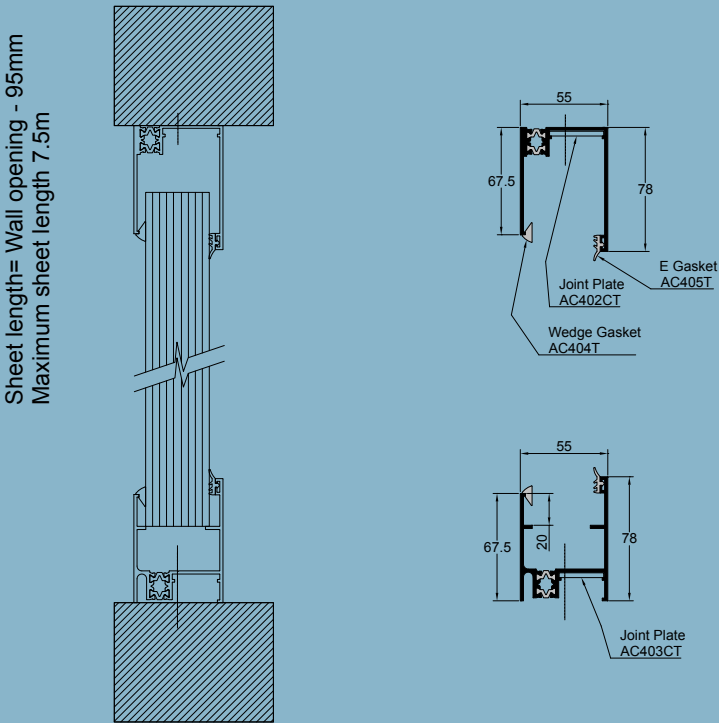
Any joints in the aluminium profile must be sealed with silicon to prevent water ingress. The silicon must be compatible with polycarbonate.



Panel Preparation

Cutting

Cutting lengths are shown in the diagram below. Marlon *Clickfix* can be cut with a fine tooth circular saw or hand saw held at a shallow angle. Dust **MUST** be removed from the panel using a vacuum cleaner or dry compressed air. It is necessary to support the panel close to the cut and to hold it firmly to prevent stress and vibration.



Tapes

A breather tape is applied at the bottom of the panel to prevent ingress of moisture, dust and insects. A sealing tape applied to the top end of the panel permits air to move freely in and out of the panel, helping minimise condensation by equalisation of the air vapour pressure inside and outside the panel. The breather tape also prevents dust or insects entering the panel.

Installation Procedure

Insert 'E' gasket into the groove in the aluminium profiles. Avoid stretching the gasket as it may shrink back from corners after installation.

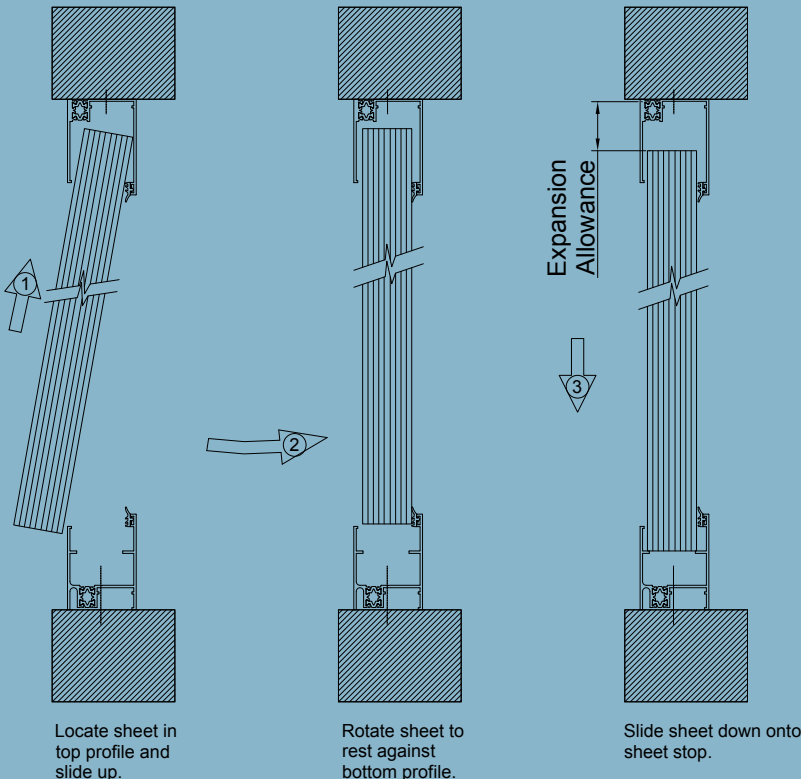
It is best practice to measure the overall opening width and determine the approximate width of the last panel. If the last panel is too narrow (less than 100mm) it becomes difficult to handle. If this is the case it is advisable to trim the width of the first panel to allow a larger finishing panel width.

Rest the top of the panel on the inside of the top profile (see below)

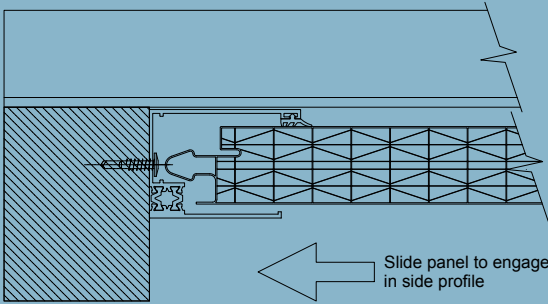
Lift the panel up until it is fully engaged

Rotate the panel until it engages in the base profile

Lower the panel until it rests on the panel stop

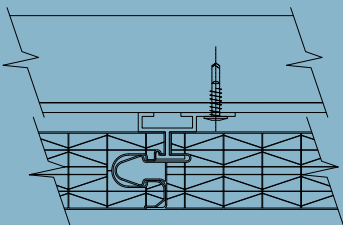
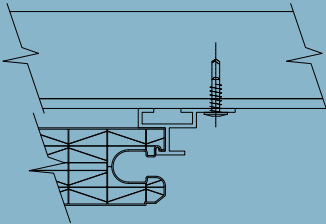
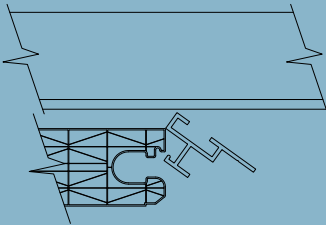


INSTALLATION MANUAL



Slide the panel side ways until it is fully engaged in the side profile

If using clips on longer panel lengths these must be fixed as the panels are installed. They cannot be fitted later.



A small amount of silicon lubricant applied to the interlock feature can ease assembly. Continue fitting panels following the same procedure until approaching the end of the run. The last and penultimate panels require a special sequence.

Finishing

There are alternative methods of installing the final sheets.

Two of these are detailed below.

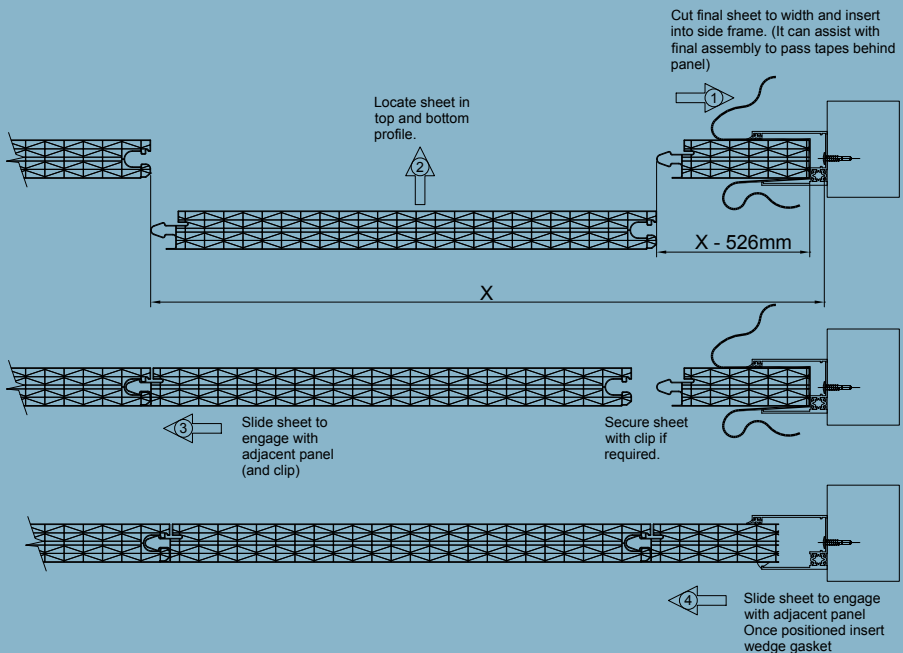
Method 1

Measure the remaining width to the back of the side aluminium profile. Subtract 526mm from this value to get the last panel width.

Cut this panel to width and insert it in the top and bottom profiles as for previous panels. Slide this panel fully into the side profile.

Insert the remaining full width panel. Engage it into the already secured panel and click into position. If necessary insert and secure clips.

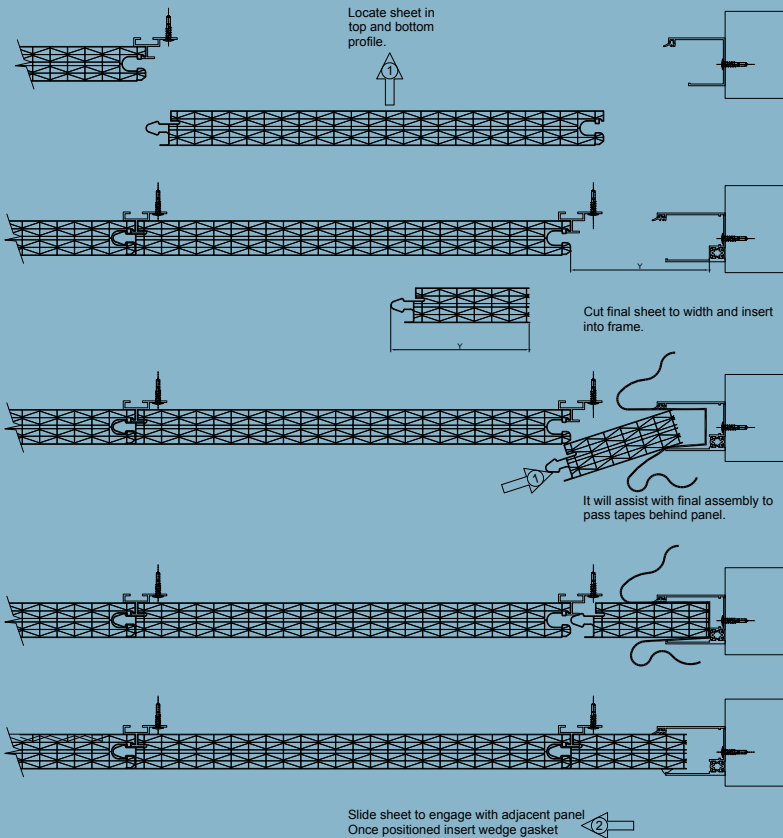
Slide back the last panel and click into position. A small amount of silicon lubricant applied to the interlock feature can ease assembly.



Method 2

Cut the last sheet to width.

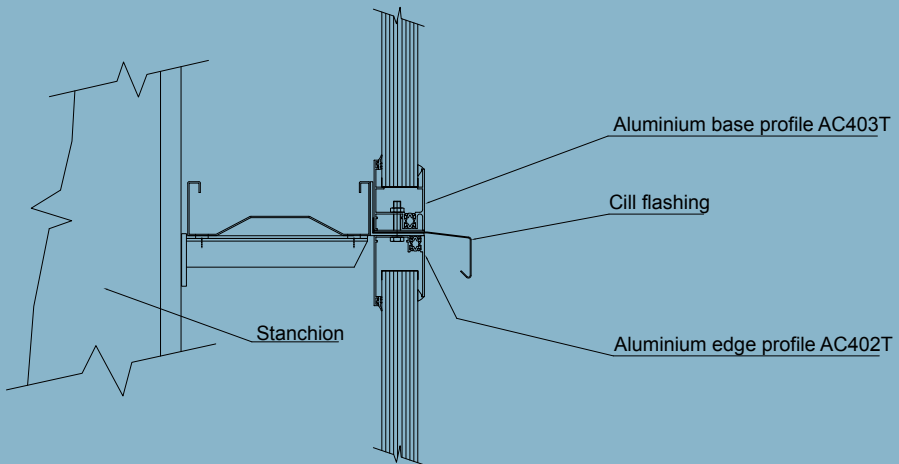
Insert the top corner of the sheet into the top corner of the frame at an angle so that it engages in the top profile. Rotate the sheet to hang vertically and engage it in the side profile. Push the sheet into the side profile and let it drop into the bottom profile. Slide the back the last panel and click into position.



Once all panels have been installed insert wedge gasket around the frame perimeter. Avoid stretching the gasket as it may shrink back from corners after installation.

High Openings

If the sheets need to be joined length wise for reasons of handling or access the opening should be split into smaller framed areas with the appropriate support steel.



Maintenance

As a condition of ensuring that Marlon *Clickfix* performs at optimum throughout its service life, it is recommended that the panel be cleaned periodically using suitable household cleaning agents. The recommended cleaning instructions are as follows:

- use lukewarm water to rinse panel and soften dirt
- make up a solution of lukewarm water and ordinary household cleaner or a mild soap and use this to wash panel
- 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

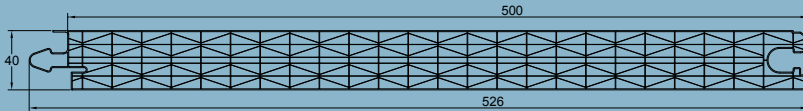
WARNING!

Care should be taken to observe the following precautions:

1. Do not scrub Marlon *Clickfix* panel with brushes or sharp instruments.
2. Avoid contact with the UV protected surface of Marlon *Clickfix* by Butyl Cellosolve, Isopropanol or any other solvent.
3. Avoid any abrasives or cleaners of a highly alkaline composition.

It is generally advisable in all instances to test any cleaner on a sample piece of Marlon *Clickfix* 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 Marlon *Clickfix* .

Gaskets and any sealants should be inspected periodically to ensure they have not deteriorated or become dislodged.



Properties	
Thickness	40mm ±0.5mm
Structure	10 wall
Modular Width	500mm ±2.5mm
Overall Width	526mm ±2.5mm
Weight	4.3kg/m ² ±5%
Thermal Insulation	0.99W/m ² K EN 673
Impact Resistance	Class B ACR[M]
Minimum Recommended Pitch	10°
Fire Class	B-s1, d0 EN 13501-1

Colour	LT	SHGC	SC
Clear	52%	0.42	0.48
Clear (g)	52%	0.42	0.48
Pearlescent	44%	0.28	0.32
Green (g)	43%	0.34	0.39
Blue (g)	15%	0.40	0.46
Red (g)	16%	0.43	0.49

(g) glass effect

+/- Load (kN/m ²)	Span (m)
0.6	2.2
0.8	2.1
0.9	2.0
1.0	1.9
1.2	1.8
1.5	1.7
1.8	1.6
2.0	1.5

Note: spanning based on deflection limit of 50mm or span/40 whichever is the lower

Brett Martin's Marlon brand of polycarbonate includes ranges of solid, profiled and multi-wall sheets.



Plastic Sheets

Global Sales:

Brett Martin Plastic Sheets

24 Roughfort Road
Mallusk, Co. Antrim
UK
BT36 4RB
TEL: +44 (0) 28 9084 9999
FAX: +44 (0) 28 9083 6666
Email: mail@brettmartin.com



Daylight Systems

UK and Ireland Sales:

Brett Martin Daylight Systems Ltd

Sandford Close
Aldermans Green Industrial Estate
Coventry, West Midlands
CV2 2QU
TEL: +44 (0) 24 7660 2022
FAX: +44 (0) 24 7660 2745
Email: daylight@brettmartin.com

For the latest information visit the company's website:

www.brettmartin.com



Certificate No. Q11913
BS EN ISO 9001:2008

All reasonable care has been taken in the compilation of the information contained within this literature. All recommendations on the use of our products are made without guarantee as conditions of use are beyond the control of Brett Martin. It is the customer's responsibility to ensure that the product is fit for its intended purpose and that the actual conditions of use are suitable. Brett Martin pursues a policy of continuous product development and reserves the right to amend specifications without prior notice.