DUALFRAME

Si WINDOW SYSTEM

IMAGINE WHAT'S NEXT

TECHNAL

Zone
ENDS

DUALFRAME Si

/ ENHANCED THERMAL INSULATION PERFORMANCE

The Si Window System has been specifically designed to comply with the ever increasing complexity of Secured by Design, Building Regulations, British Standards and other regulatory demands.

- Superior thermal performance is achieved with a unique polyamide thermal barrier enabling Si to comfortably exceed the requirements of Part L 2016 of the Building Regulations for thermal insulation.
- The Si suite consists of a high performance casement, tilt before turn, pivot, reversible and window wall - a cost effective alternative to curtain wall allowing the installation of modular units that are constructed off-site. The full Si range can also be integrated with other Technal systems including MX curtain walling and the Stormframe STII thermally enhanced door.
- Si windows have been awarded BSI Kitemarks to BS4873 'Specification for aluminium alloy windows' and PAS24 'Specification for enhanced security performance'.
- As with all products in the Technal range, the suite can be dual coloured, that is having differing finishes internally and externally.

DUALFRAME SI

/ THE ENERGY EFFICIENT WINDOW SYSTEM

With an increased focus on the energy efficiency of buildings, it is invaluable to use windows and doors that help towards the overall reduction of energy consumption. The Si suite enables superior overall window performance to be achieved without the need to resort to complex and costly sealed unit specifications.

The Si window suite can achieve an "A+" Window Energy Rating and where specified 'U' Values down to 0.9 W/m2K.

As well as achieving exceptional thermal performance, the Si suite attains superior weather performance for water tightness, air permeability and wind resistance.

BFRC

DUALFRAME SI

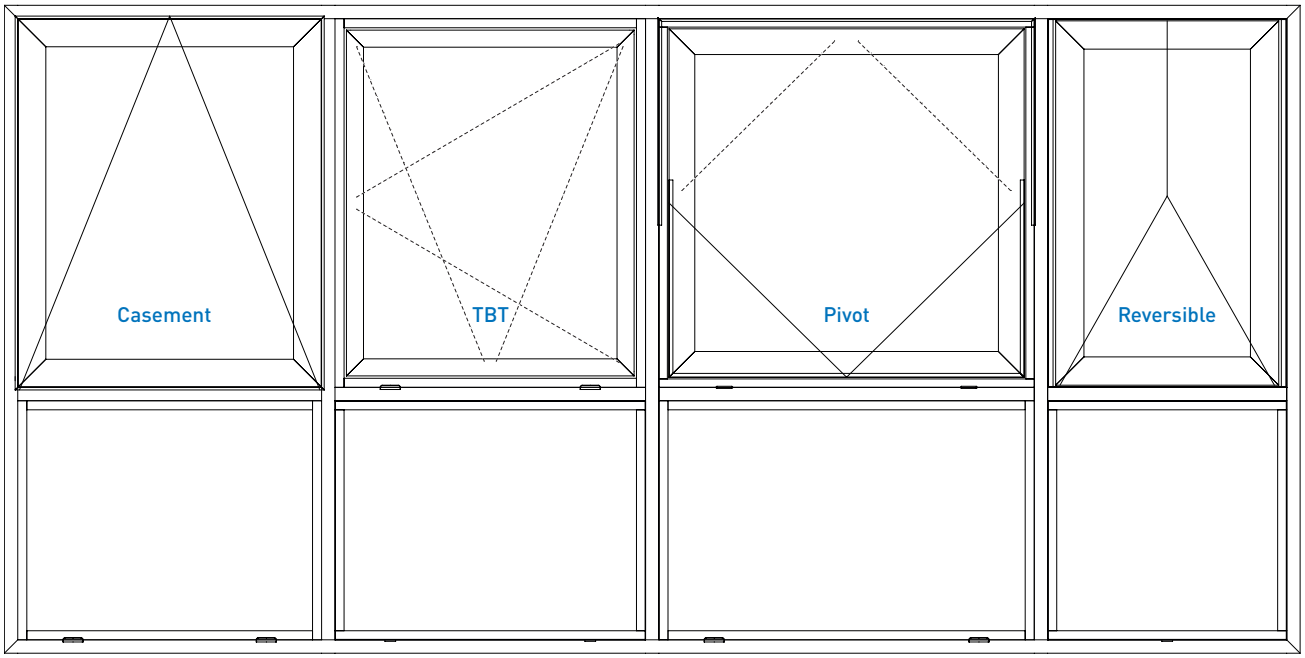
/ A TRULY FLEXIBLE WINDOW SYSTEM

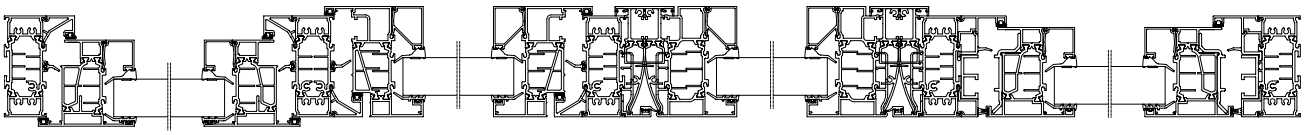
The Si window suite is designed to work in harmony with the Technal Building Systems range to maximise your design options.

The specialised profile range adds great flexibility when constructing windows where inward and outward facing rebates have to be combined, without the need and expense of coupling sections or dummy frame to fixed lights.

Universal frames can be used to create the most complex of screens easily combining casement, tilt before turn, pivot and reversible opening lights, as well as inside and outside glazing.

Combined with the option of having different finishes inside and out, the Si suite will give you endless choices.





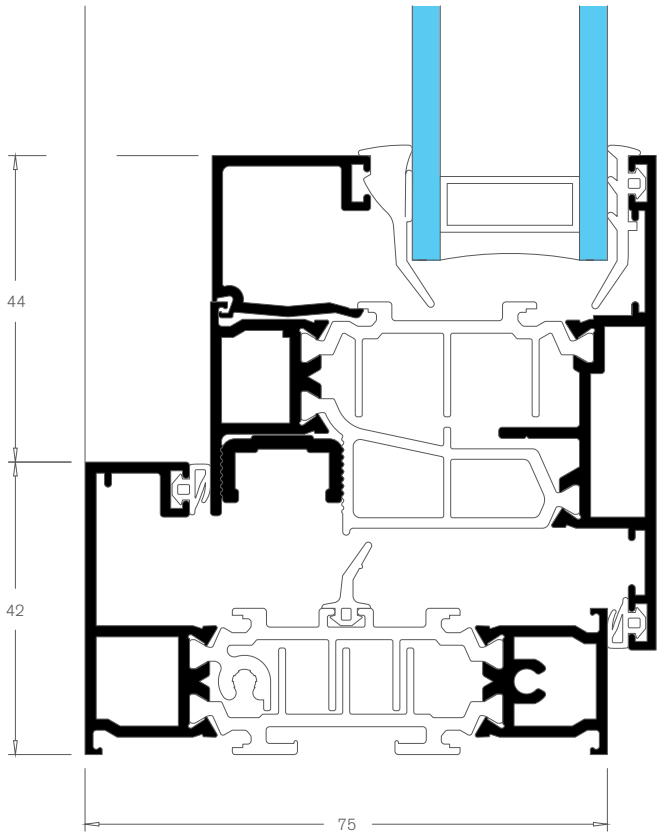
DUALFRAME SI
/ CASEMENT

TOP HUNG

- Vent Size Max. 1720mm (H) x 1720mm (W)
- Vent Size Min. 424mm (W) x 249mm (H)
- Side Hung
- Vent Size Max. 884mm (W) x 1829mm (H)
- Vent Size Min. 250mm (W) x 424mm (H)

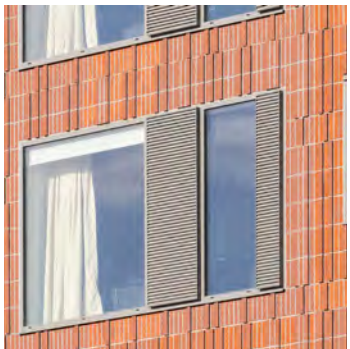
FIXED LIGHTS 5M2

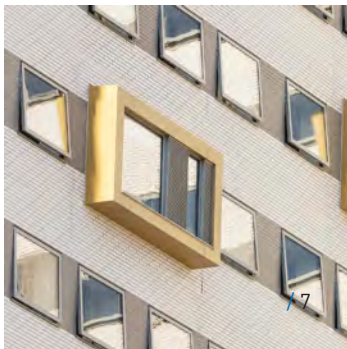
- Glazing Thickness from 24mm to 47mm
- Vent weight to 100kg
- PAS024 and Secured by Design compliant
- A+ Rated WER
- U Value of 1.3 W/m2K with standard DGU*



Secured by Design
SBD
Official Police Security Initiative

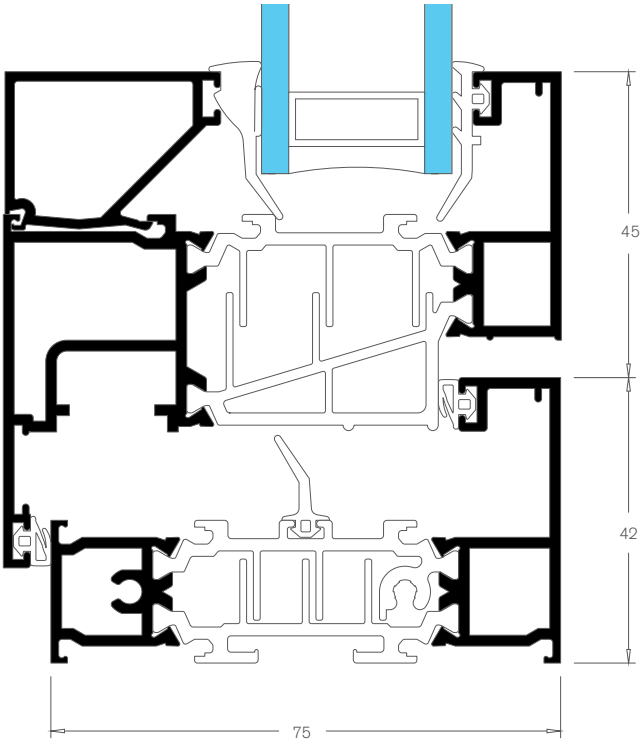
	AIR PERMEABILITY	WATER TIGHTNESS	WIND RESISTANCE
OPENING LIGHTS	Class 4 600 Pa	Class 9a 600 Pa	Class A5 2000 Pa
FIXED LIGHTS	Class 4 600 Pa	Class 9a 600 Pa	Class A5 2000 Pa





DUALFRAME SI

/ TILT BEFORE TURN



- Vent Size Max. 1440mm (W) x 2440mm (H)
- Vent Size Min. 470mm (W) x 561mm (H)
- Fixed lights 5m2
- Glazing Thickness to 47mm
- Vent weight to 150kg
- PAS024 and Secured by Design compliant
- A++ Rated WER
- U Value of 1.3 W/m2K with standard DGU*

Secured by Design

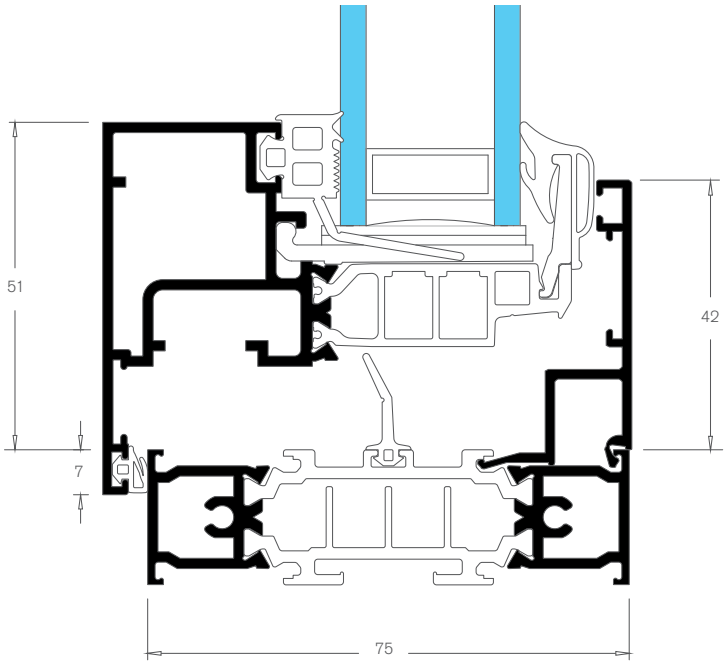
SBD

Official Police Security Initiative

	AIR PERMEABILITY	WATER TIGHTNESS	WIND RESISTANCE
OPENING LIGHTS	Class 4 600 Pa	Class 9a 600 Pa	Class E 2400 Pa
FIXED LIGHTS	Class 4 600 Pa	Class 9a 600 Pa	Class E 2400 Pa

DUALFRAME SI
/ CONCEALED VENT

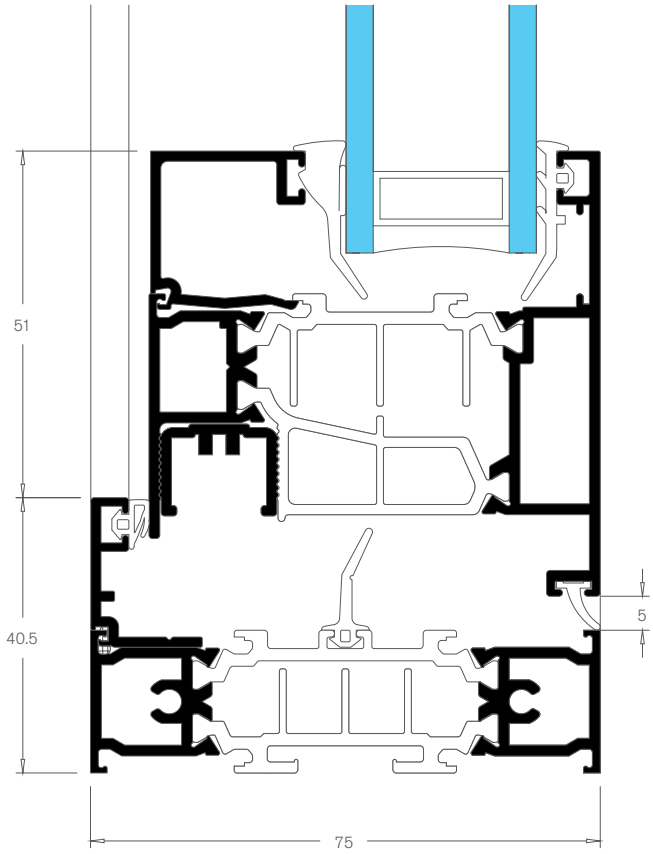
- Vent Size Max. 1040mm (W) x 1940mm (H)
- Vent Size Min. 470mm (W) x 561mm (H)
- Glazing Thickness to 32mm
- Vent weight to 80kg
- U Value of 1.3 W/m2k with standard DGU*



AIR PERMEABILITY	WATER TIGHTNESS	WIND RESISTANCE
Class 4 600 Pa	Class 9a 600 Pa	Class C5 2000 Pa

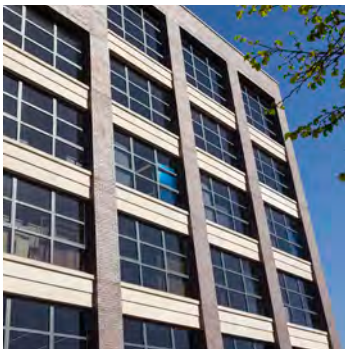
DUALFRAME SI
/ REVERSIBLE

- Vent Size Max. 1320mm (W) x 1320mm (H)
- Vent Size Min. 497mm (W) x 497mm (H)
- Fixed lights 5m2
- Glazing Thickness to 50mm
- Vent weight to 60kg
- PAS024 and Secured by Design compliant
- A+ Rated WER
- U Value of 1.3 W/m2K with standard DGU*



Secured by Design
SBD
Official Police Security Initiative

	AIR PERMEABILITY	WATER TIGHTNESS	WIND RESISTANCE
OPENING LIGHTS	Class 4 600 Pa	Class 9a 600 Pa	Class A5 2000 Pa
FIXED LIGHTS	Class 4 600 Pa	Class 9a 600 Pa	Class C5 2000 Pa



HELLO
uS
UNITE STUDENTS
ST PANCRAS WAY

DUALFRAME SI

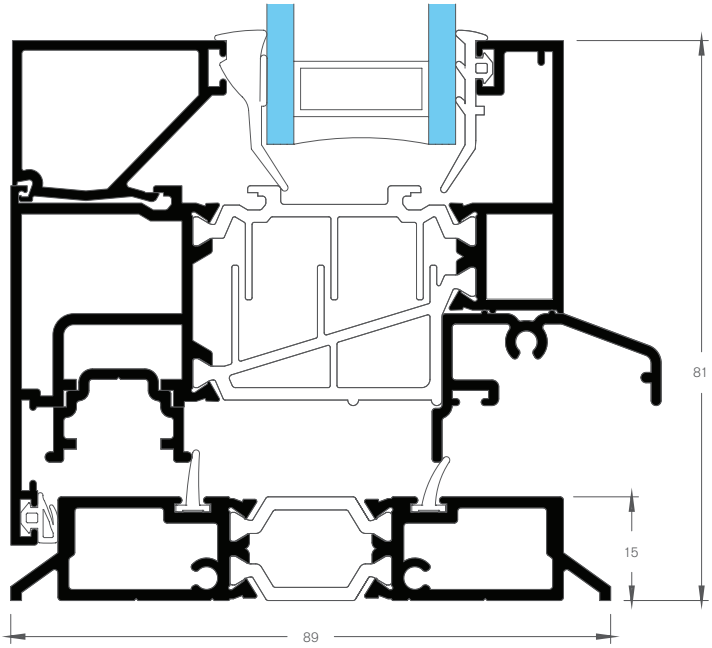
/ BALCONY WINDOW

The Si Balcony Window offers inward and outward opening, single and double options with both standard and low thresholds. This latest addition meets a growing demand for high performing products suited to Juliet balconies and full balcony applications.

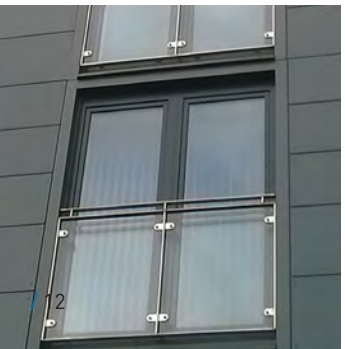
Providing individual opening windows up to 1.0m wide and up to 2.4m high, the inward opening balcony window can be used alone or as part of a window solution for larger apertures. Achieving exceptional performance for a window in all areas - air permeability wind resistance and water tightness - the system can also accommodate glazing thicknesses up to 47mm, providing improved acoustic performance.

With key security on the inside of the window, the system also incorporates a separate external method for closing the window, operated by a discreet handle arrangement fitted to the outside face for use in full balcony situations.

- Fixed lights 5m2
- Glazing Thickness to 47mm
- Minimum Sash Width 641 mm
- Maximum Sash Width 1040 mm
- Minimum Sash Height 1741 mm
- Maximum Sash Height 2440 mm
- Maximum Sash Weight 100 Kg



	AIR PERMEABILITY	WATER TIGHTNESS	WIND RESISTANCE
SINGLE OPEN IN (LOW THRESHOLD)	Class 4 600 Pa	Class 9a 600 Pa	Class C5 2000 Pa
DOUBLE OPEN IN (LOW THRESHOLD)	Class 4 600 Pa	Class 9a 600 Pa	Class C4 1600 Pa
SINGLE OPEN OUT (LOW THRESHOLD)	Class 4 600 Pa	Class 9a 600 Pa	Class C5 2000 Pa
DOUBLE OPEN OUT (LOW THRESHOLD)	Class 4 600 Pa	Class 9a 600 Pa	Class C4 1600 Pa
DOUBLE OPEN IN (STANDARD THRESHOLD)	Class 4 600 Pa	Class 9a 600 Pa	Class C5 2000 Pa



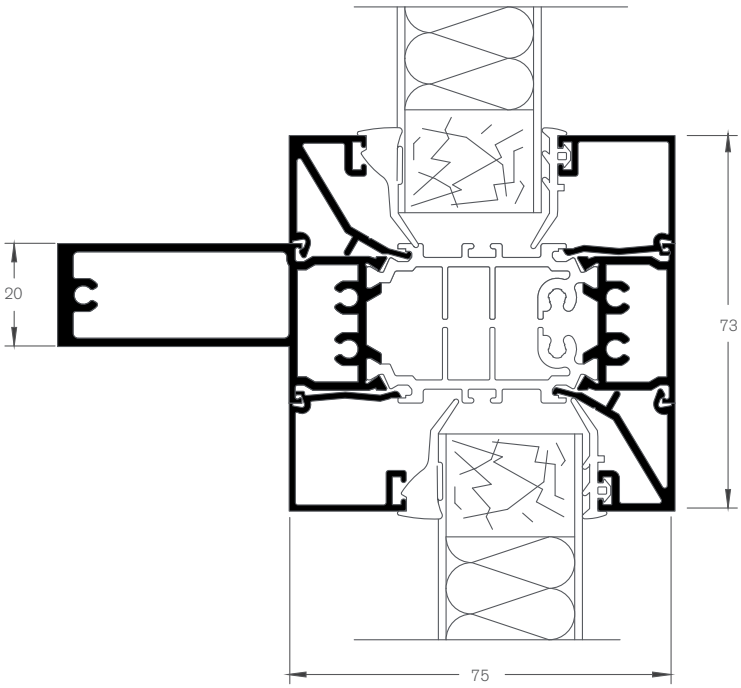
DUALFRAME SI
/ WINDOW ASSEMBLIES

The Si range is complemented by a number of specilaist profiles which, when used in conjunction with standard Si products, can be used to construct high performance window assemblies.

Such window assemblies provide a fast and economic way to construct complete larger aperture glazing solutions. Such assemblies can include fixed and opening lights as well as panels and even doors. The inherent strength of the system allows for substantial units to be fabricated offsite providing a more controlled construction process and reducing time required on site.

Solutions such as these are suitable for both refurbishment and new build projects.

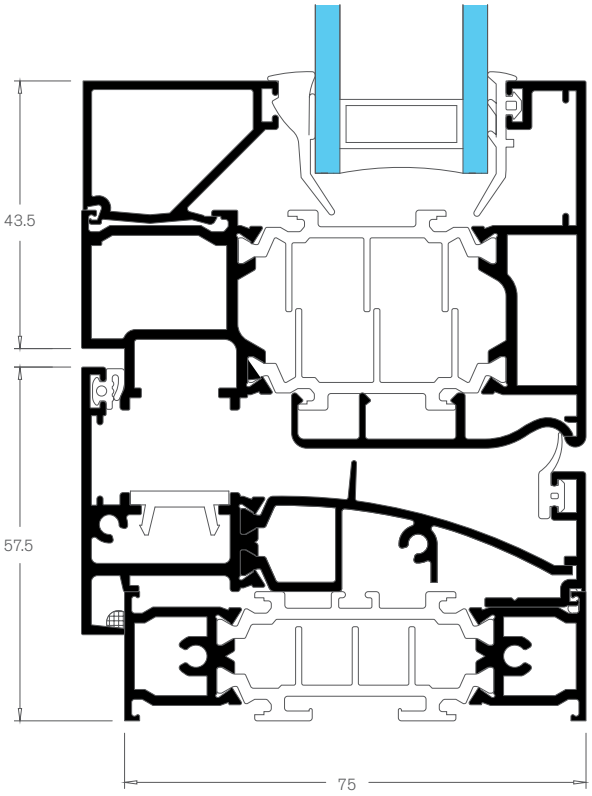
- Fixed lights 5m2
- Glazing Thickness to 47mm
- PAS 24 and Secured by Design compliant



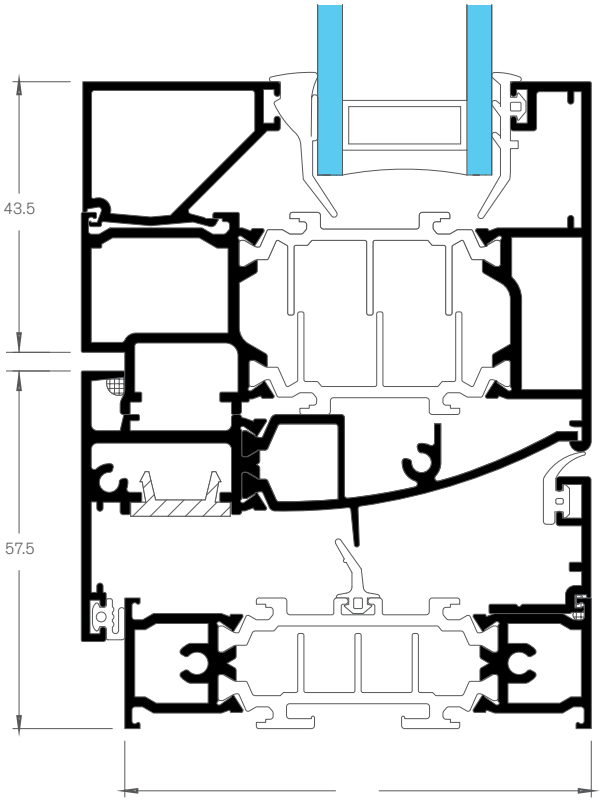
	AIR PERMEABILITY	WATER TIGHTNESS	WIND RESISTANCE
OPENING LIGHTS	See relevant Si variant for more information		
FIXED LIGHTS	Class 4 600 Pa	Class 9a 600 Pa	Class C5 2000 Pa

DUALFRAME SI
/ PIVOT

Horizontal



Vertical



- Vent Size Max. 1640mm (W) x 1640mm (H)
- Vent Size Min. 780mm (W) x 780mm (H)
- Fixed lights 5m2
- Glazing Thickness to 47mm
- Vent weight to 90kg HP and 60kg VP
- PAS024 and Secured by Design compliant
- A+ Rated WER
- U Value of 1.3 W/m2K with standard DGU*

	AIR PERMEABILITY	WATER TIGHTNESS	WIND RESISTANCE
HORIZONTAL PIVOT	Class 4 600 Pa	Class 9a 600 Pa	Class C5 2000 Pa
VERTICAL PIVOT	Class 4 600 Pa	Class 8a 450 Pa	Class C5 2000 Pa
FIXED LIGHTS	Class 4 600 Pa	Class 9a 600 Pa	Class A5 2000 Pa

DUALFRAME SI
/ ALTERNATIVE OPTIONS

Side Hung / Open In

This option allows for numerous design variations such as louvres or perforated mesh to be fitted externally to let the window open fully into the room to give the maximum amount of purge ventilation with the added security that nothing can fall through the open window.

* with 1.0 W/m2 DG Unit and high performance warm edge spacer.

** Exposure category varies with Width/Height of window and mullion / transom used, as these are the only unsupported members.

TECHNAL

IMAGINE WHAT'S NEXT

Hydro Building Systems UK Ltd
Severn Drive, Tewkesbury
Gloucestershire. GL20 8SF
Tel: 01386 853500 - www.technal.co.uk

By Hydro