



origin

Spec Guide

OW80



OW80 Premium Window



Profile Specification

Outer Frame Depth	80mm
Sash Depth	80mm
Frame and Sash Sightline	91mm
Mullion / Sash – Fixed Sightline	108mm
Mullion / Sash – Sash Sightline	148mm
Frame Polyamide Width	35mm
Astragal Bar Divide Height	25mm
Glazing Options	28 / 32 / 44mm
Frame External Render Margin	21mm
Frame Internal Plaster Margin	50mm



Features

The features OW80 are really what makes it a design statement, as well as the right choice when it comes to thermal performance.

- Modern **Gallery** look, with sleek design
- Internal and External Flush Casement
- Chamfered bead
- Exceptional thermal performance, with U-Values as low as $0.8W/m^2K$
- Available in over 150 RAL Colours
- Mechanical double crimped corners
- Yale Encloser locking mechanism
- Stainless steel friction stay hinges
- Night vent function
- Up to a 20-year guarantee on parts*

*Visit origin-global.com for Terms and Conditions

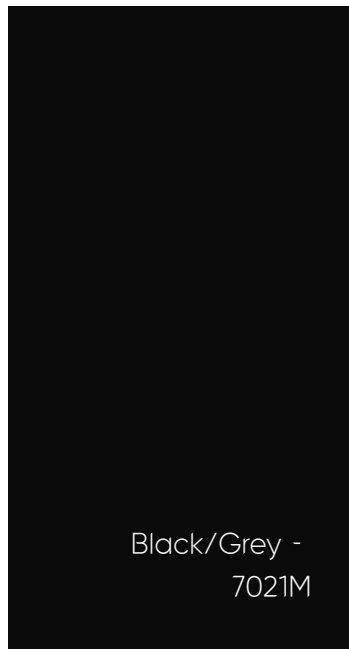
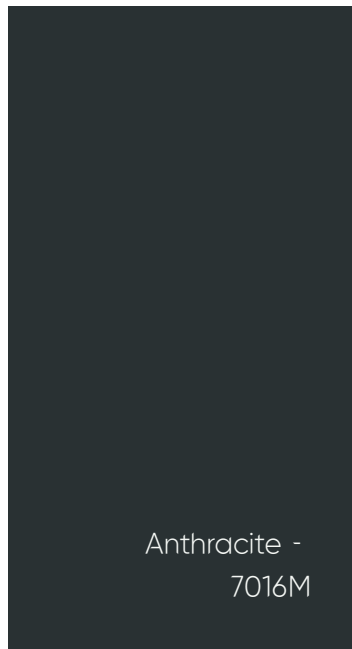


Colours

OW80 is available in the following popular colours, along with Hipca White - 9910G/M, and in over 150 special RAL colours.

All colours are available with an optional Marine finish.

Visit origin-global.com for up-to-date lead times.



Options and Extras

OW80 has an extensive selection of flexible design options to fully customise any living space.

- Configure as a **Bay, Casement, Gable, French** or **Picture**
- Concealed drainage (available with cill only)
- Colour coded gaskets
- Coupling available
- Cill options
- Aerogel Upgrade
- Astragal bars
- Easy clean side hung sashes*
- Egress hardware
- Fixing straps
- Restrictor hooks
- 15mm and 35mm frame extender
- Metallic or colour-coded handles

**Available on configurations between 400-700mm*



Hardware Options

Handle Colours

Metallic:

Brushed | Chrome | Gold | Satin Grey

Popular:

Anthracite | Black Grey | Dark Silver | Hipca White | Jet Black | Slate Grey

Hardware

Cills:

95mm | 155mm | 180mm | 225mm

Flat Trim:

25mm | 31mm | 35mm | 50mm

Hinge Guard Type:

Vector Excluders

Lock:

Yale Encloser

Trickle Vents:

2500EA | 4000EA | 5000EA | Colour-Coded

Frame Extender:

15mm | 35mm

Thermal Matrix

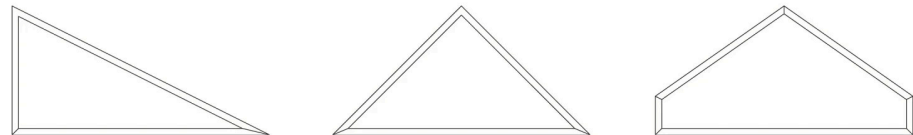
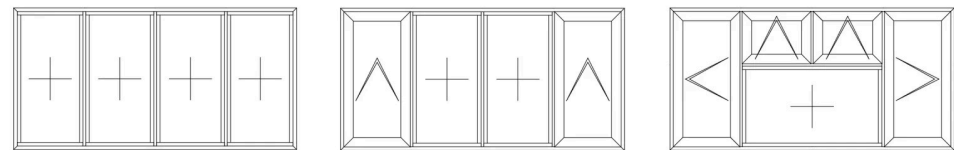
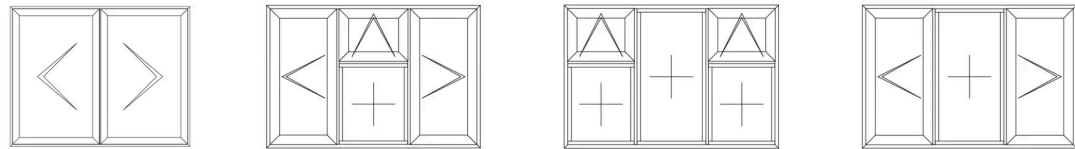
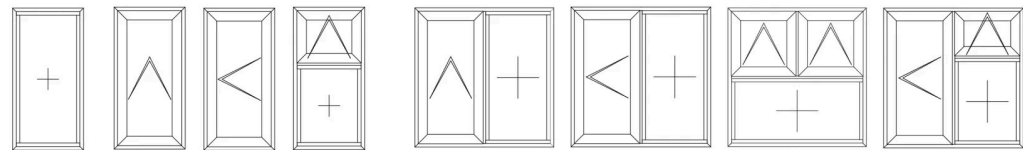
Glazing	Centre Pane U-Value	Width (mm)	Make-Up	Weight (kg/m ²)	Coating Example	U-Value (W/m ² K)
Double	1.2	28	4 / 20 / 4	20	Planitherm Total +	1.4
Double	1.2	28	6 / 16 / 6	30	Planitherm Total +	1.4
Double	1.1	28	4 / 20 / 4	20	Planitherm ONE	1.4
Double	1.0	28	6 / 16 / 6	30	Planitherm ONE	1.4
Triple	0.9	44	4 / 16 / 4 / 16 / 4	30	Planitherm Total +	1.2
Triple	0.8	44	4 / 16 / 4 / 16 / 4	30	Planitherm ONE	1.2
Triple	0.6	44	4 / 16 / 4 / 16 / 4	30	2 x Total +	1.0
Triple	0.5	44	4 / 16 / 4 / 16 / 4	30	2 x ONE	0.9

Size Limitations

Detail	Min.	Max.
Fixed Frame Height & Width	225mm	4,800mm
Fixed Frame Area (m ²)	-	7.0m ²
Side Hung Height (Width)	400mm	1,800mm (1,000mm)
French Window Height / Width	474mm / -	1,400mm / 1,800mm
Top Hung Height & Width	400mm	1,500mm
Dummy Sash Height & Width	325mm	4,800mm
Mullion / Transom	300mm	2,100mm
Glazed Area Next to Mullion (m ²)	-	3.15m ²
Concealed Coupler Length / T-Coupler	225mm	2,500mm / 3,000mm
Transom Drop	400mm	-
Bay Angle / Gable Angle	117° / 20°	175° / -
Gable Upstand	100mm	-

Configurations

OW80 is available in the following popular configurations, however to design your bespoke configuration, please login to OSS.





Handles

Handle Options

Sophisticated in design, the Offset Handle on OW80 have been engineered to instil confidence through its looks, touch and operation, and guarantees to draw you in from the very first interaction.

The Offset Handle is available in four Metallic finishes, or six Popular colours. Additionally, it can be colour coded in any RAL option, to match or contrast with the window.

METALLIC

POPULAR



Popular Colours

The Offset Handle is available the below six popular stock colours, or it can be colour coded to any RAL option..



Anthracite



Hipca White



Black Grey



Jet Black



Dark Silver



Slate Grey

Metallic Colours

The Offset Handle is available the below four metallic colours, or it can be colour coded to any RAL option..



Brushed Aluminium



Gold



Chrome



Satin Grey



Options

Glazing Bars

Glazing bars are available to order with OW80 and allows for both a contemporary steel replacement look, or a Georgian sash style window.

The bars are available with 3M fixing tape and are fitted to the glass after installation.

See the Window Installation Guide for fitting instructions.

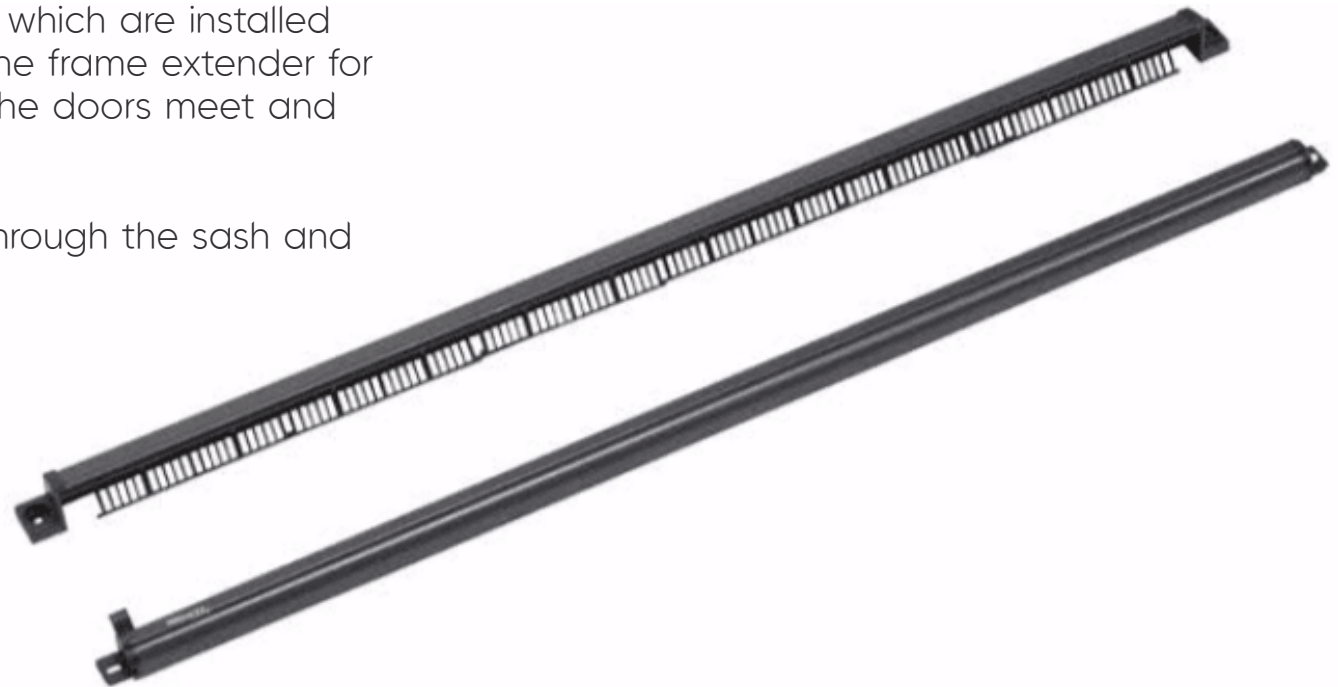


Trickle Vents

Trickle vents have to meet the minimum air flow rates as defined in the British Building Regulations.

Should it be required, OW80 can be specified with discreetly designed trickle vents which are installed within the fixed sash profile, or the frame extender for additional ventilation, ensuring the doors meet and surpass building regulations.

The trickle vents can be fitted through the sash and the 35mm frame extender.



Frame Extender

A 35mm frame extender is available, allowing for thicker plaster lines on ceilings, and as well as more room for trickle vents to be fitted.

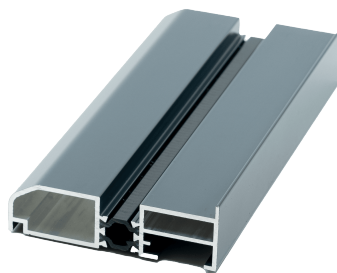
Restrictor Hooks

Restrictor hooks limit the sash opening but can be unhooked to allow the window to open fully.

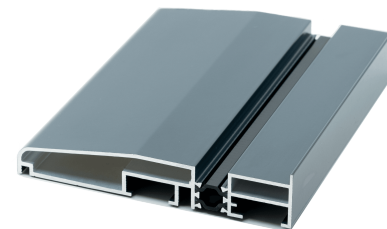


Cills

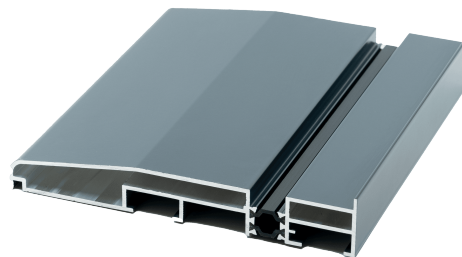
Choose from four powder coated cill options to complement OW80.



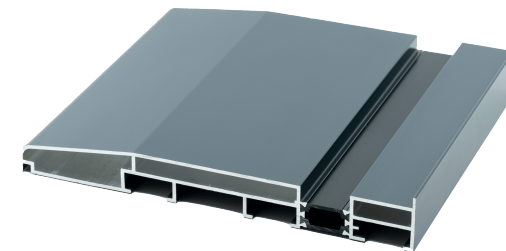
95mm



155mm



180mm



225mm



Security

Security Features

OW80 complies with and exceeds all required security accreditations, including PAS 24 and Secured by Design.

Additionally, standard features patented include anti-slip and lock hinge guards, which are fitted along the hinged side of the window along with a bespoke Yale Encloser lock.

- PAS 24 certified
- Secured by Design Accredited
- Anti-slip and lock hinge guards
- Bespoke Yale Encloser lock



Performance



Product Performance

All Origin products are built to last, and thorough tested, which is why we offer an industry-leading guarantee of up to 20-years on parts.

OW80 has been designed for maximised thermal efficiency, and has been engineered with a 35mm polyamide thermal break that features interlocking barriers to minimise airflow through the system. Additionally, a bespoke cavity gasket in the internal chamber between the sash and frame is fitted as standard.

OW80 is available with Aerogel as an optional upgrade. Aerogel is the most insulating material on the planet.

Slim frames, maximum viable glass coverage, airtight seals, and Aerogel all contribute to ensuring that OW-80 can achieve a highly efficient 0.8 U-Value and an Energy Rating of A++.

Performance, Testing and British Building Regulations*

PAS 24	2022
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Secured By Design	Yes
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Air Permeability	Class 4, 600 Pa
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Water Tightness	Class EISO0, 1500 Pa
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Wind Loading	Class BS, 2000 Pa
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BS 6375 Parts 1, 2 and 3

Passed 50,000 lead sash cycles and 10,000 full cycles, equating to 25-years of use.

BS EN 10088-2 Grade Certified Hinges

Impact tested to 2633Pa (Casement) and 3591Pa (Fixed)

New Build Limiting Value*	1.6 W/m ² K
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Replacements*	1.4 W/m ² K
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Energy Rating	B or better
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**All doors must conform to these requirements*

Egress Application

Approved Document B of the Building Regulations 2010 specifies the following provisions with regards to egress application:

Section 2.8 Emergency egress windows and external doors

Any window provided for emergency egress purposes and any external door provided for escape should comply with the following conditions:

1. The window should have an unobstructed openable area that is at least 0.33m² and at least 450mm high and 450mm wide. In practice, this means the opening should be at least 450mm high by 750mm wide or 750mm high and 450mm wide (the route through the window may be at an angle rather than straight through). The bottom of the open-able area should be no more than 1100mm above the floor.
2. The window or door should enable the person escaping to reach a place free from danger and free from fire. This is a matter for judgement in each case, but, in general, a courtyard or back garden from which there is no exit other than through other buildings would have to be at least as deep as the dwelling house is high to be acceptable.

Note 1. Approved Document K protection from falling, collision and impact specifies a minimum guarding height of 800mm, except in the case of a window in a roof where the bottom of the opening may be 600mm above the floor.

Note 2. Locks (with or without removable keys) and stays may be fitted to egress windows, subject to the stay being fitted with a release catch, which may be child resistant.

Note 3. Windows should be designed such that they will remain in the open position without needing to be held by a person making their escape.

Aerogel: The Ultimate Insulator

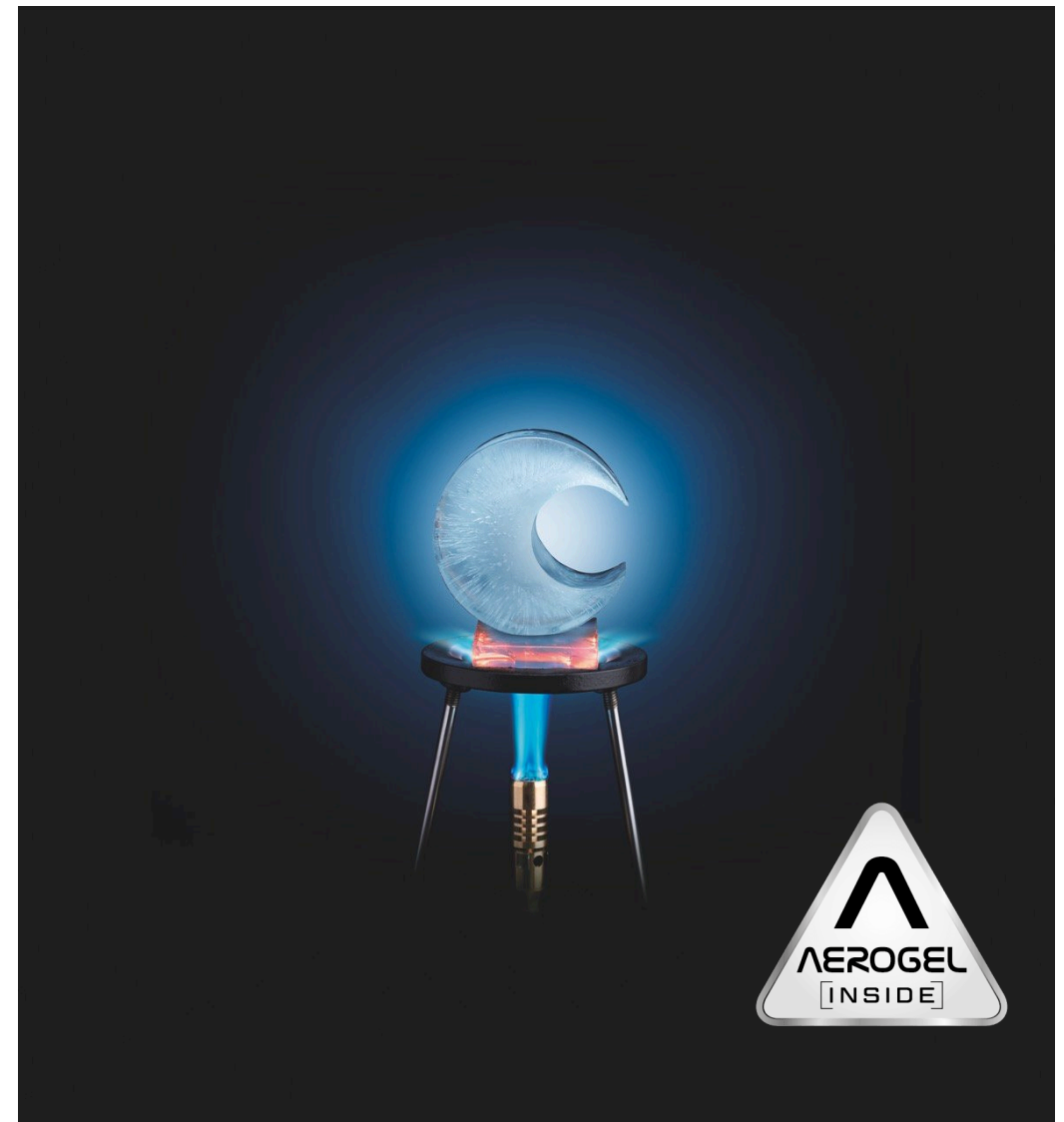
Aerogel is a highly porous, synthetic solid made from silica gel, where liquid is replaced with air. Despite the name, it's dry and rigid or foam-like.

History and Applications

Discovered in 1931 by Samuel Kistler during an experiment to replace jelly's liquid with gas, aerogel has since been used in space exploration, insulation, clothing, tennis rackets, supercapacitors, and cosmetics. Its commercial use became viable in the 21st century after production costs fell.

Why is Aerogel a Great Insulator?

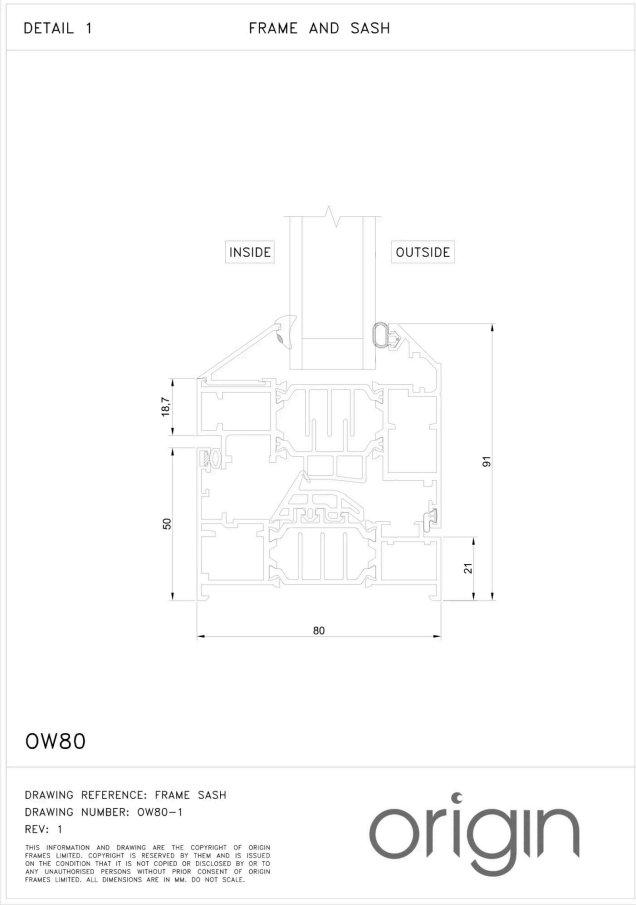
Made of 99.8% air, aerogel limits heat transfer by blocking conduction and convection. Though it's a poor radiative insulator, adding aluminium can improve performance. It insulates 39× better than fibreglass and handles extreme temperatures.



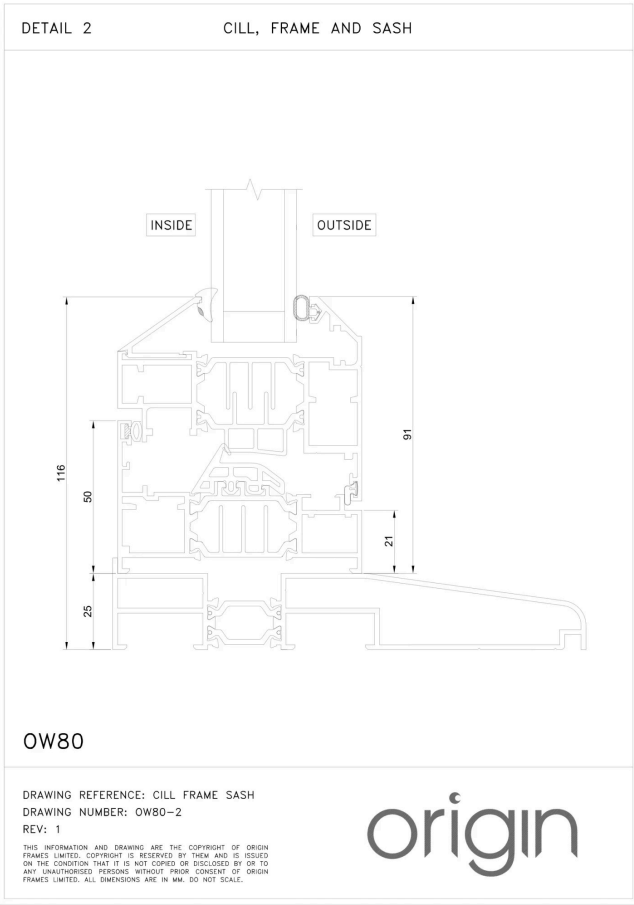


Tech Drawings
Download

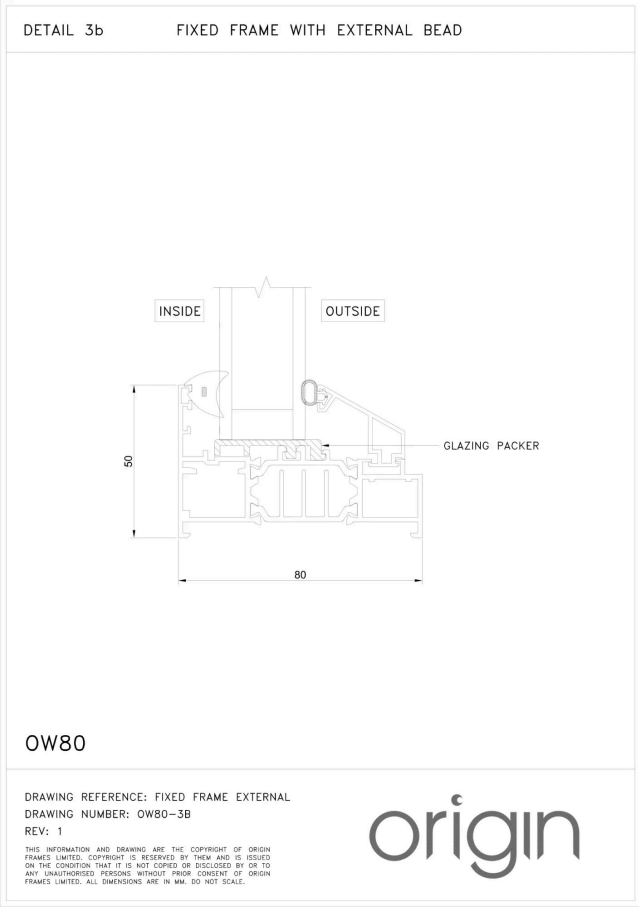
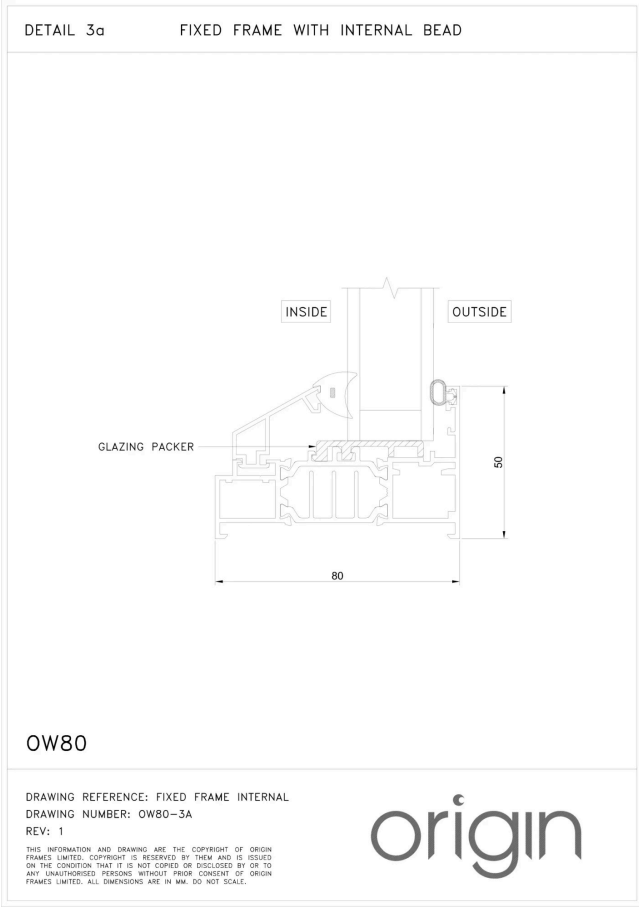
Frame and Sash



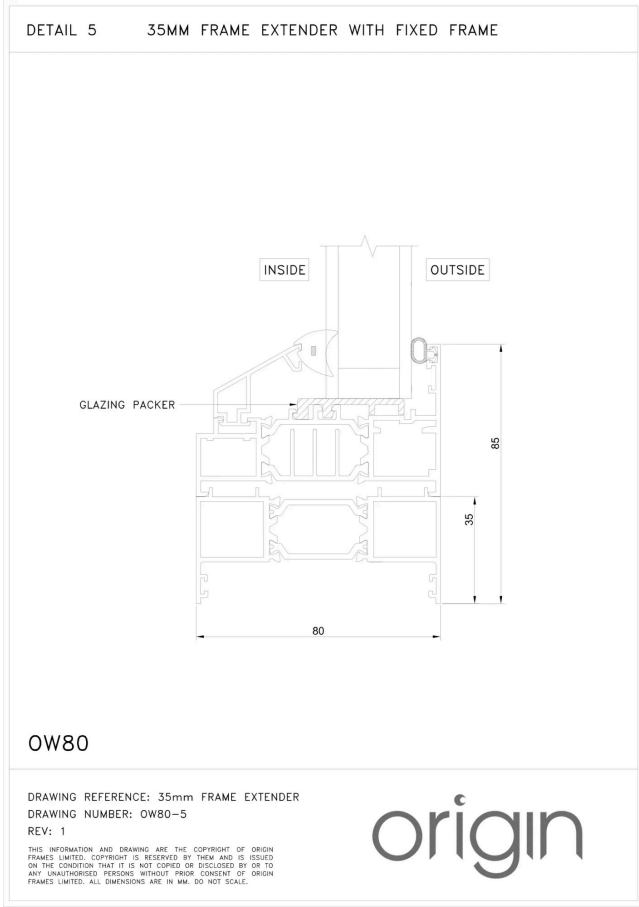
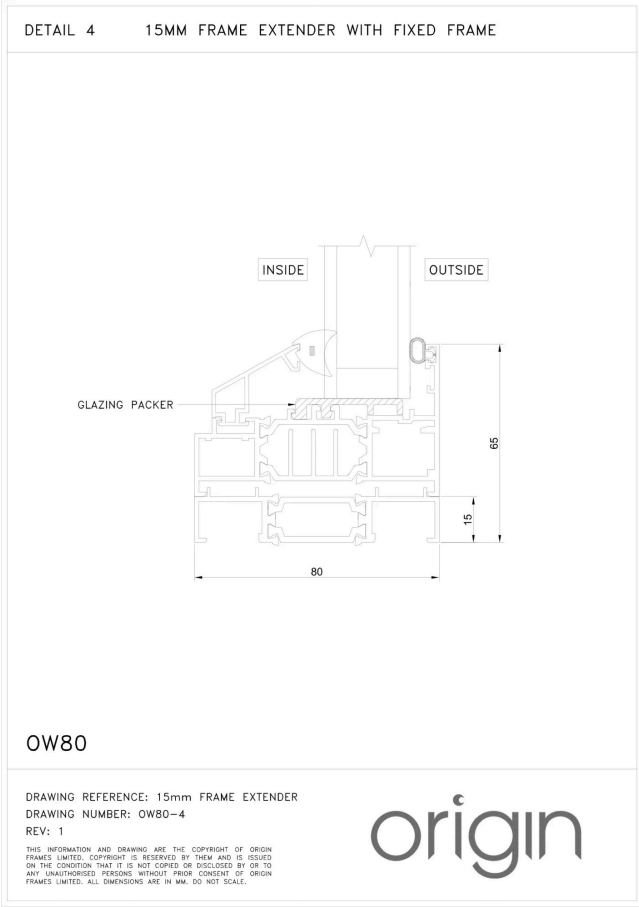
Cill, Frame and Square Sash



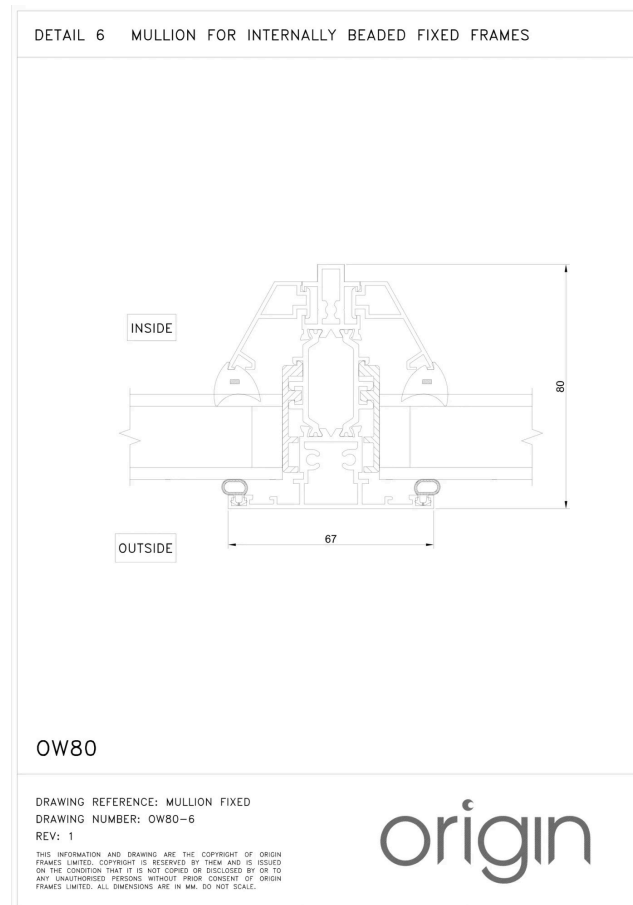
Fixed Frame and Bead



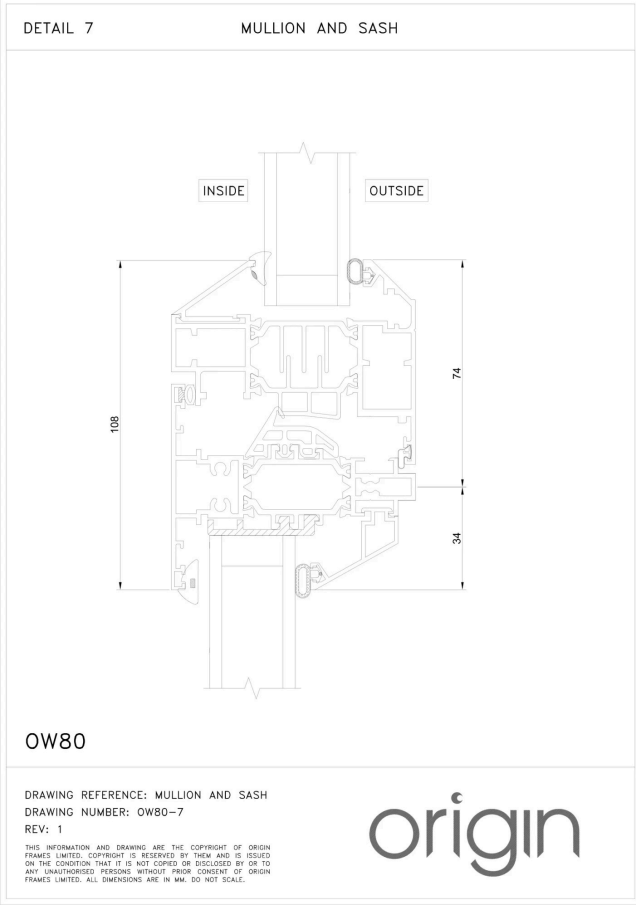
Frame Extender – Fixed Frame



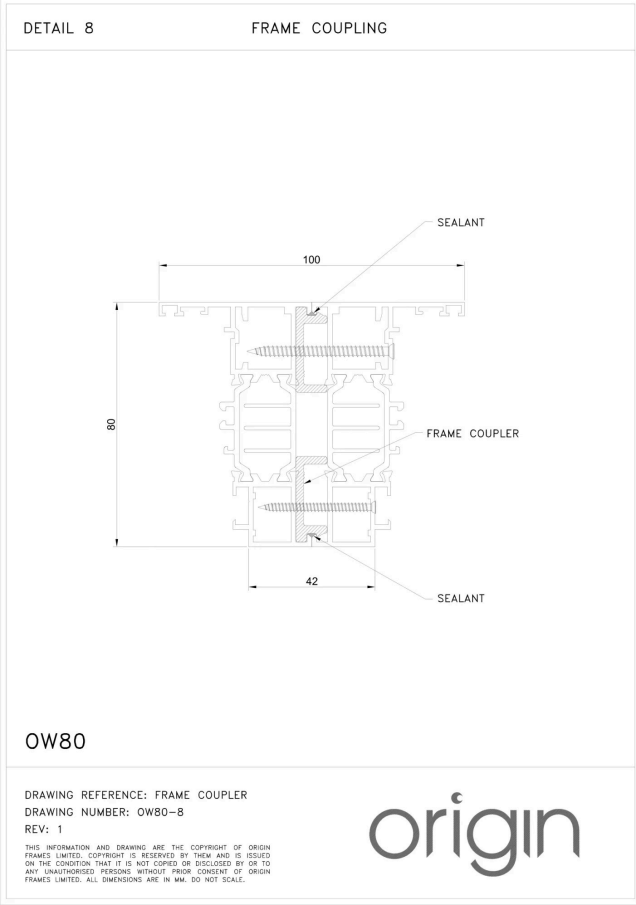
Mullion – Internally Beaded



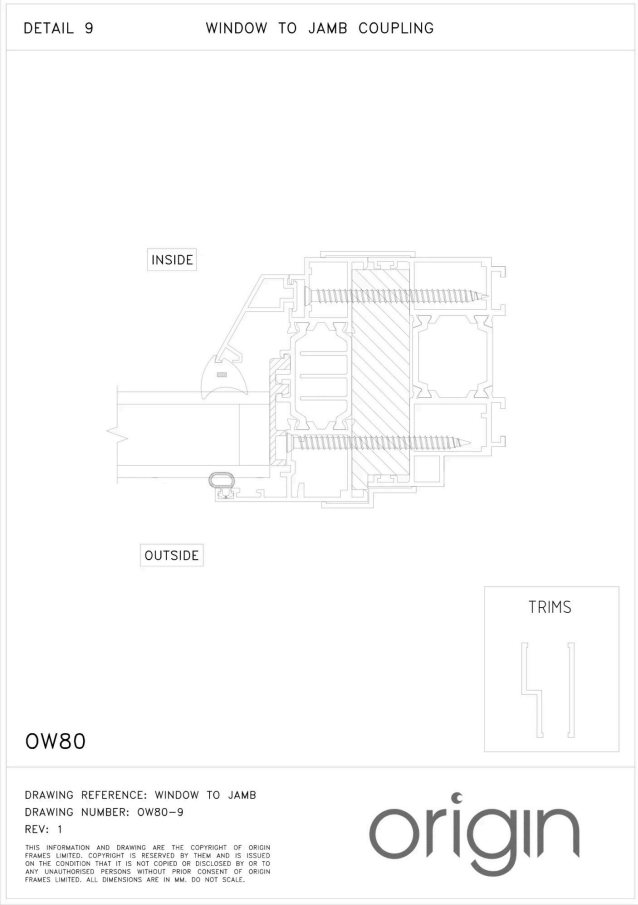
Mullion – Sash



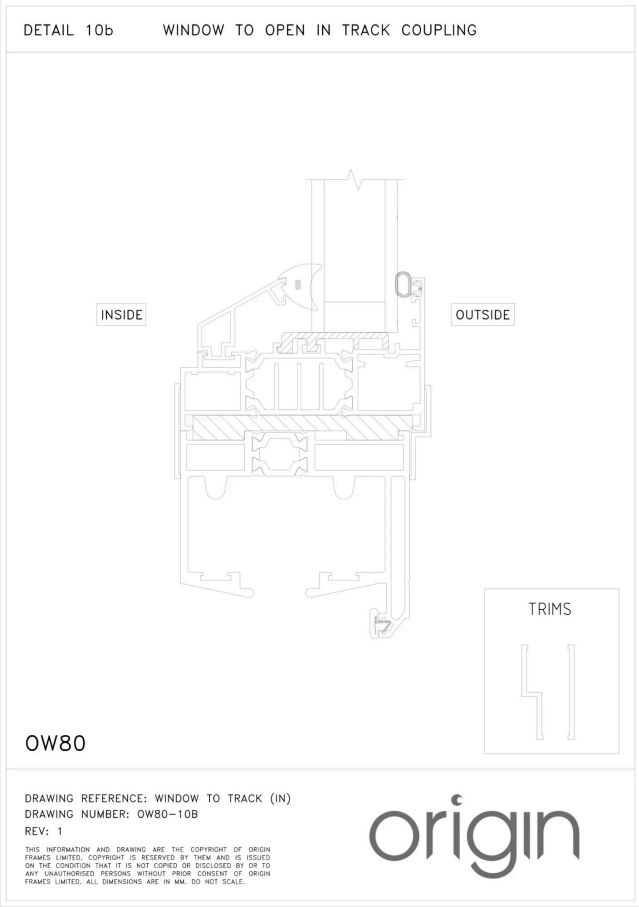
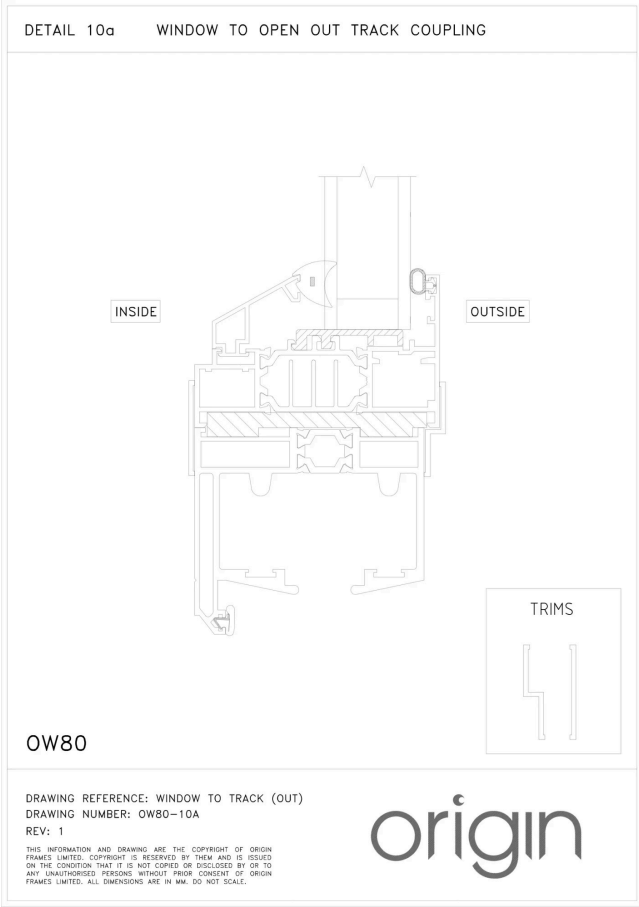
Frame Coupling



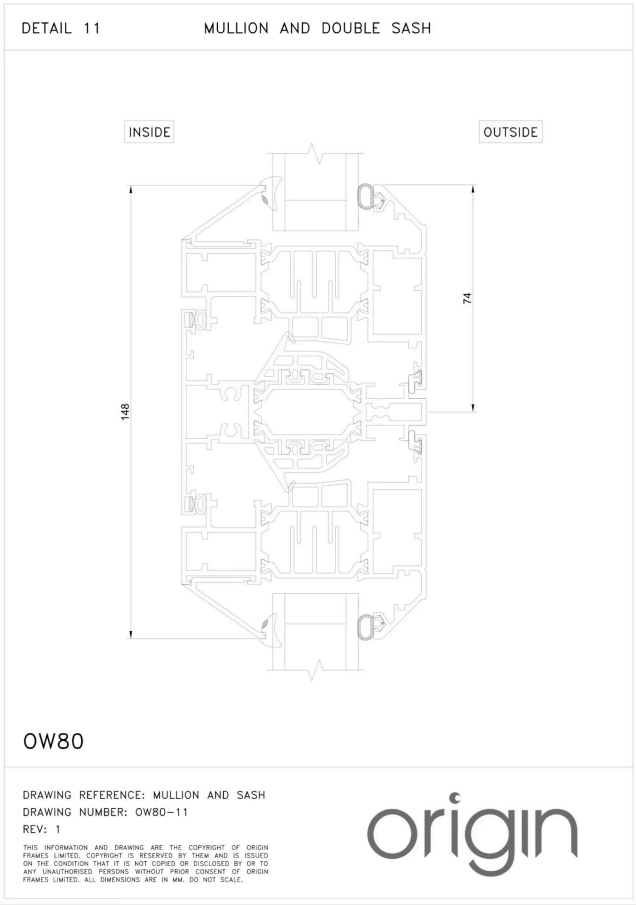
Window – Jamb Coupling



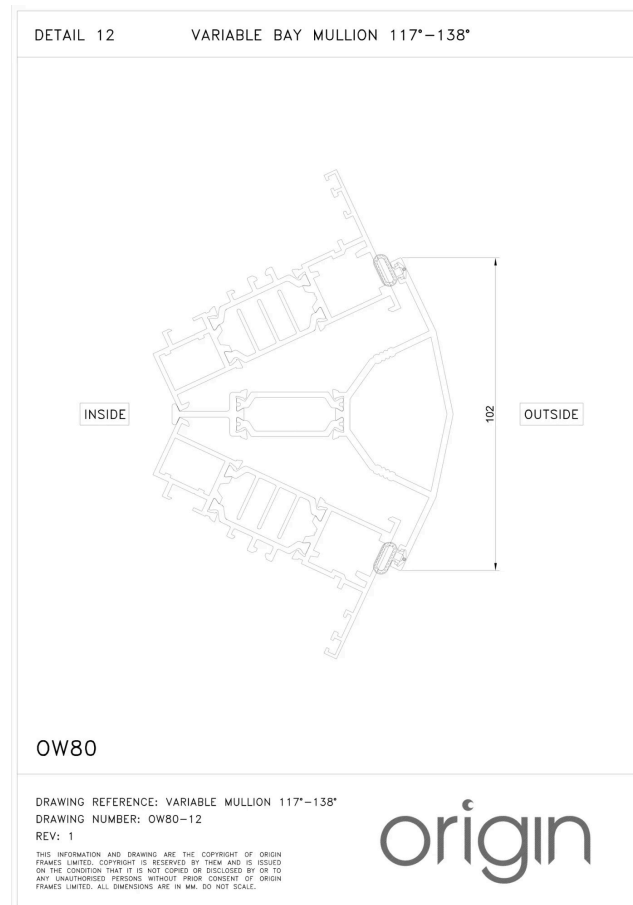
Window – Track Coupling



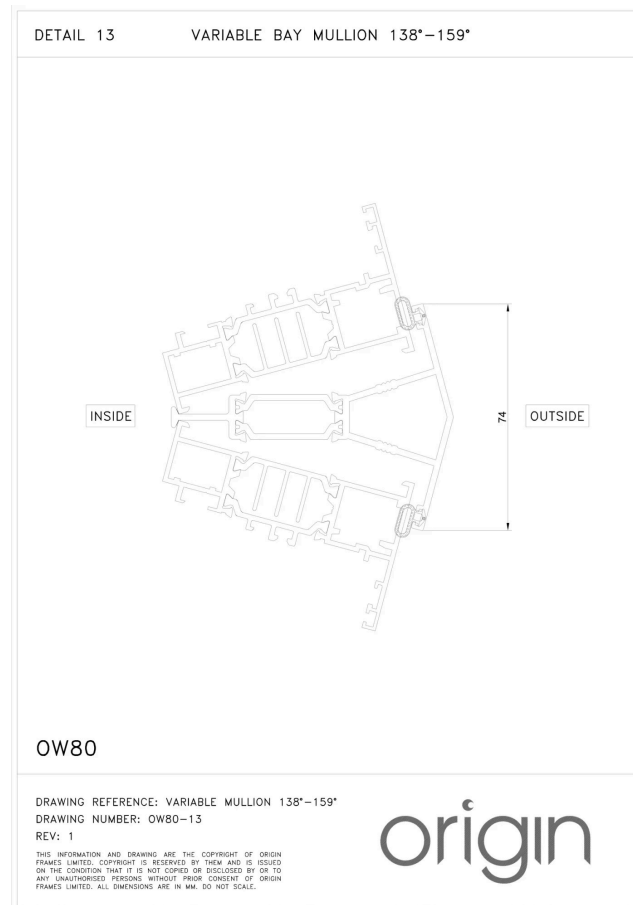
Mullion – Double Sash



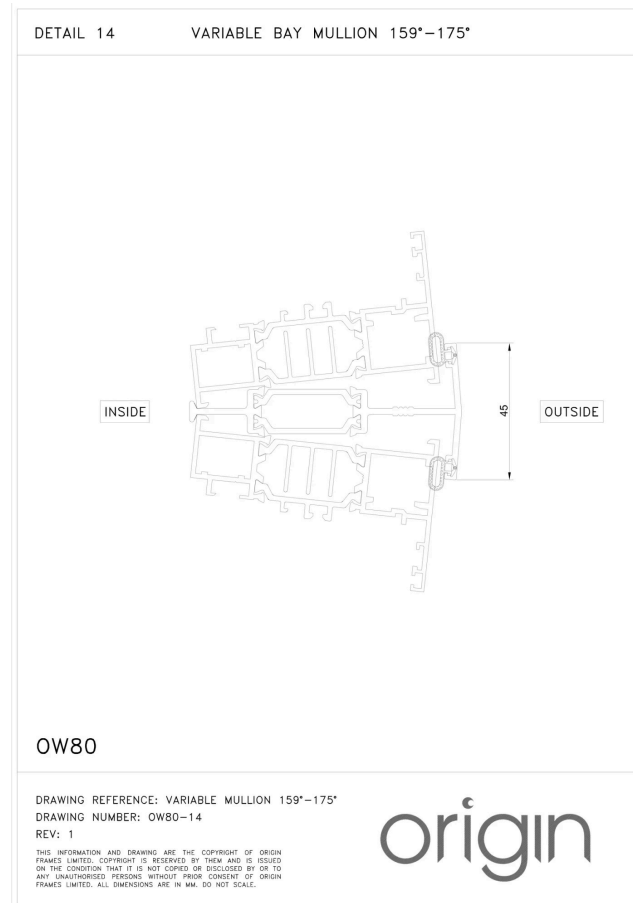
Mullion – Variable Bay 117° - 138°



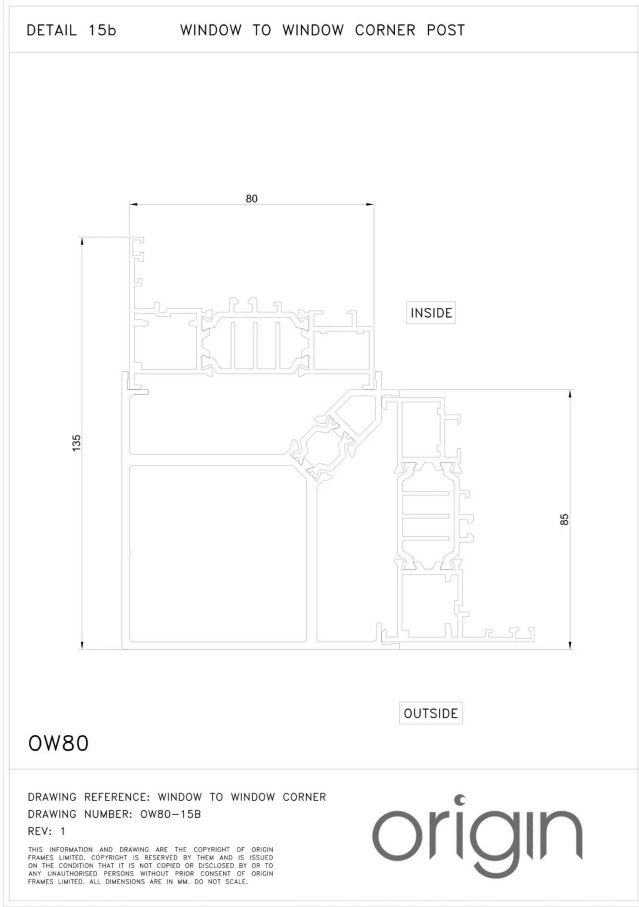
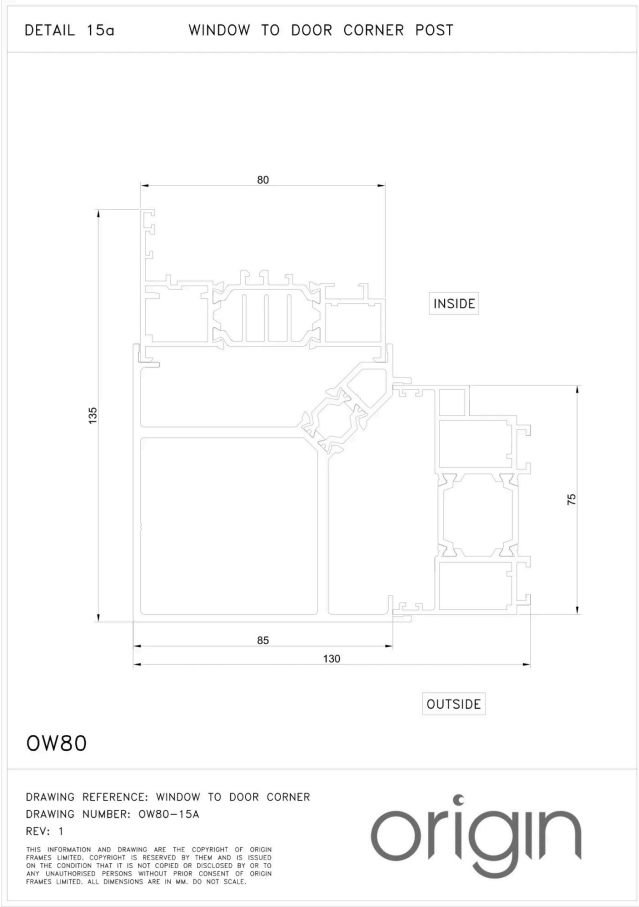
Mullion – Variable Bay 138° - 159°



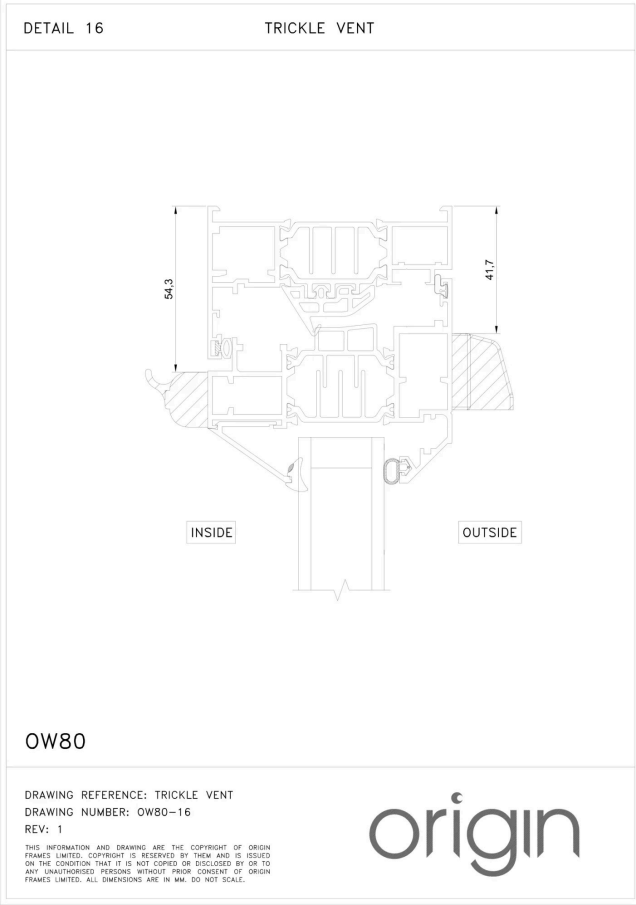
Mullion – Variable Bay 159° - 175°



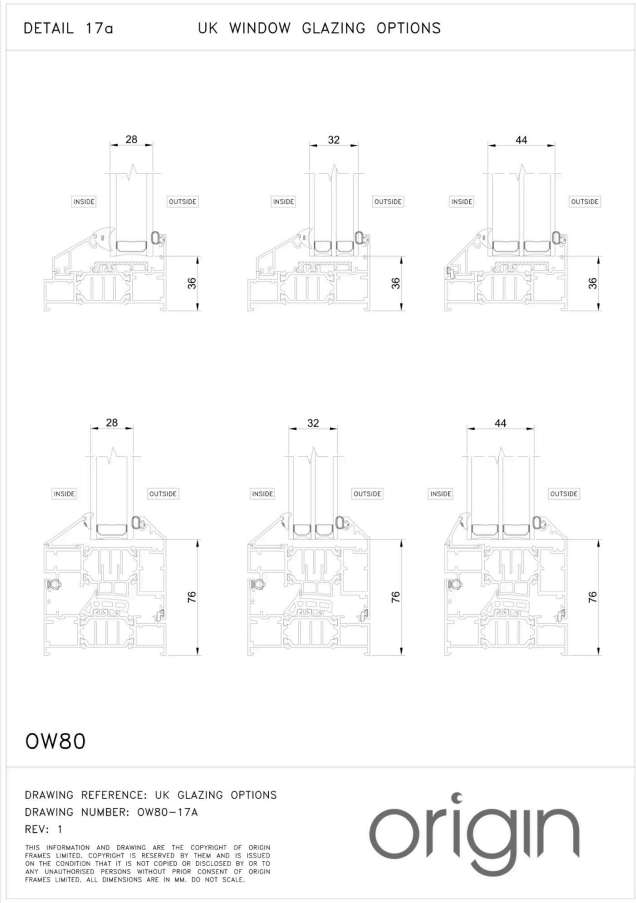
Window – Corner



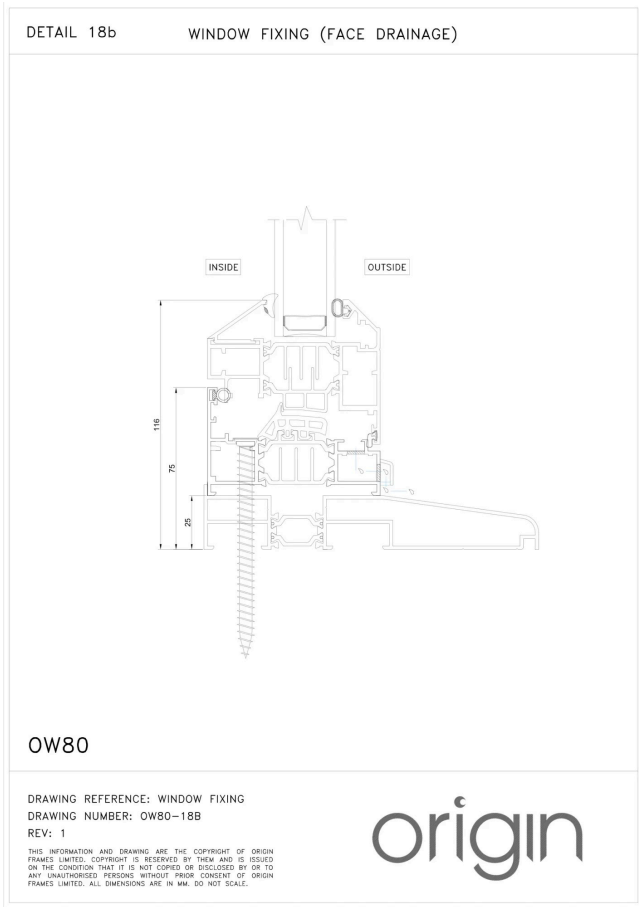
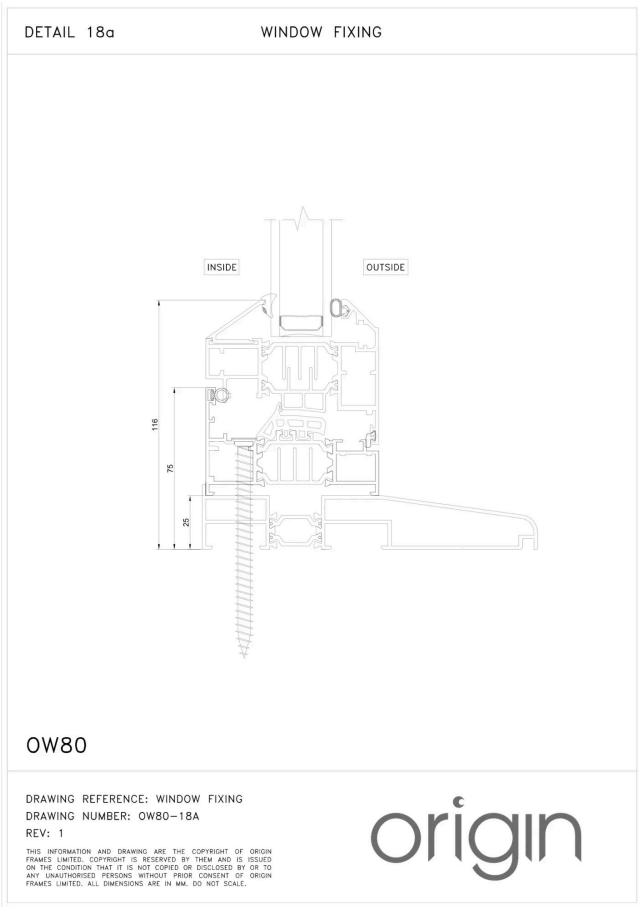
Trickle Vent



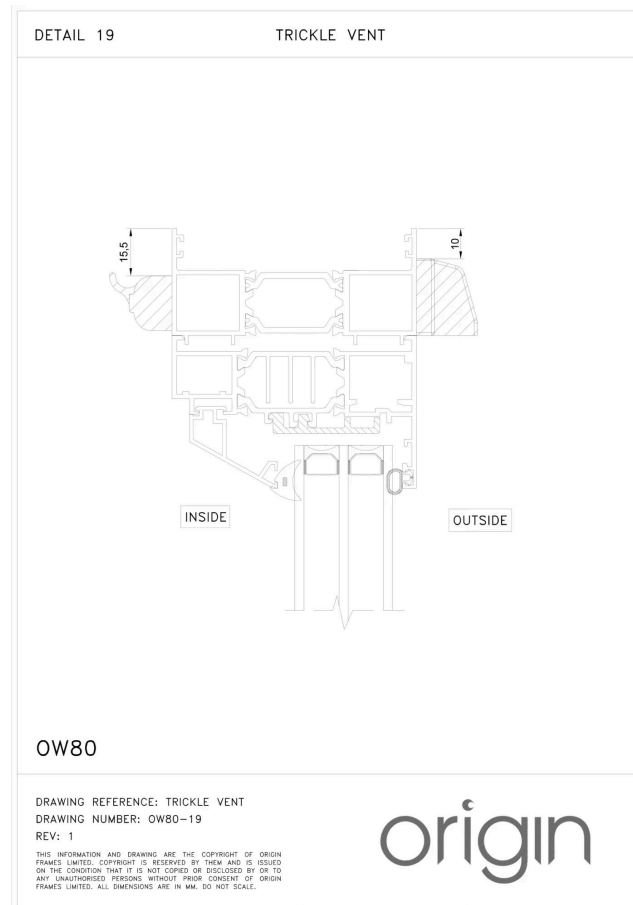
Glazing Options



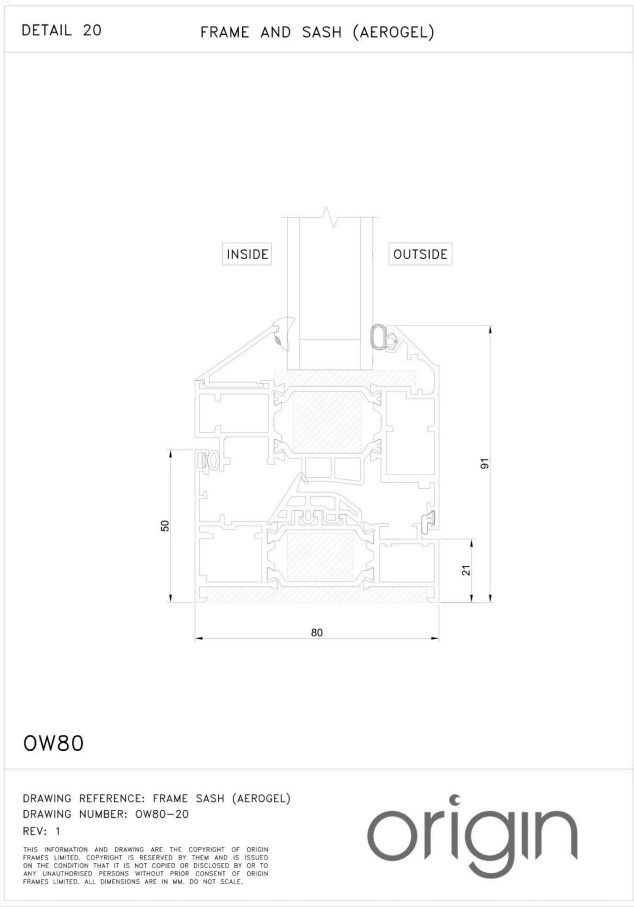
Window Fixing



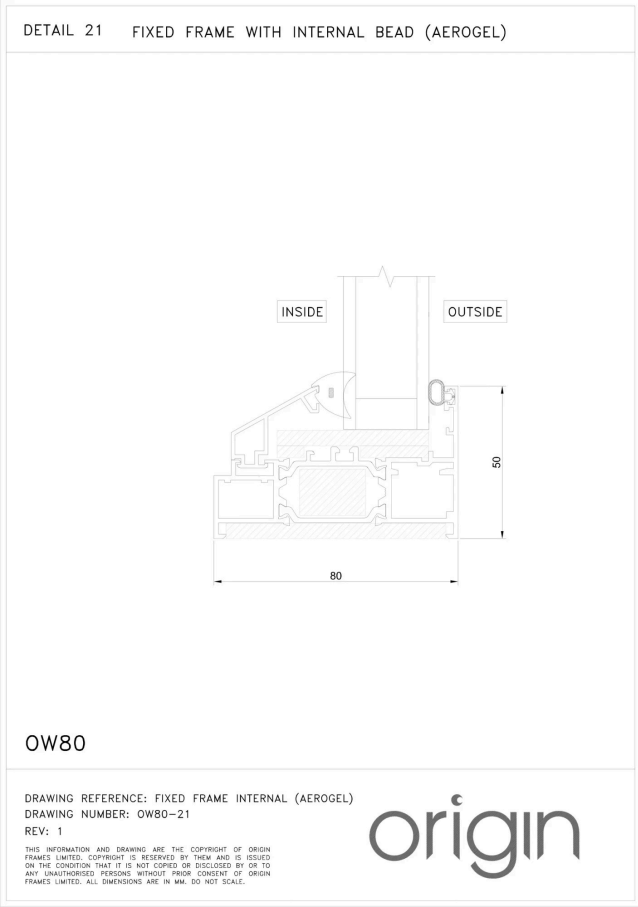
Trickle Vent – Frame Extender



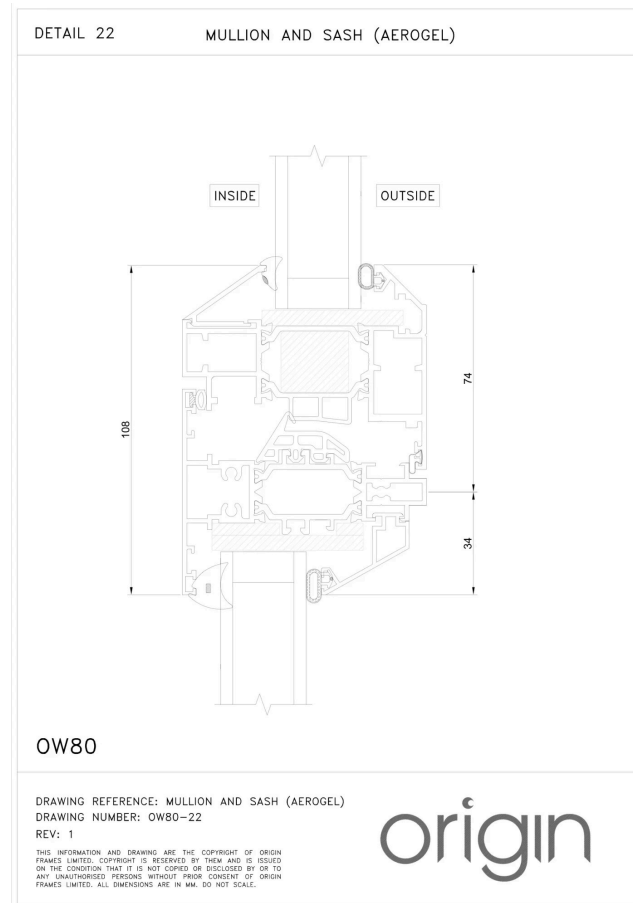
Frame and Sash – Aerogel



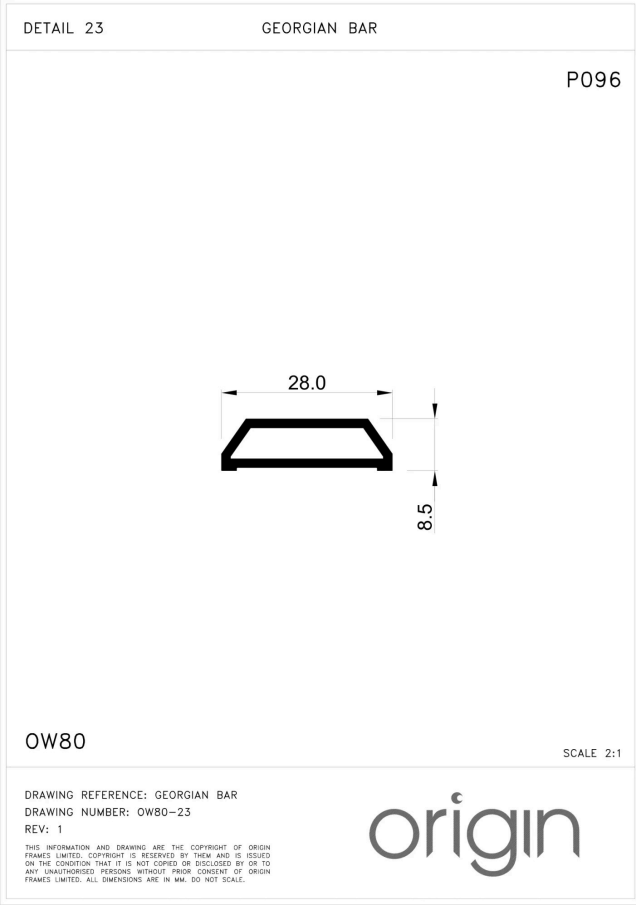
Fixed Frame – Internal Bead – Aerogel



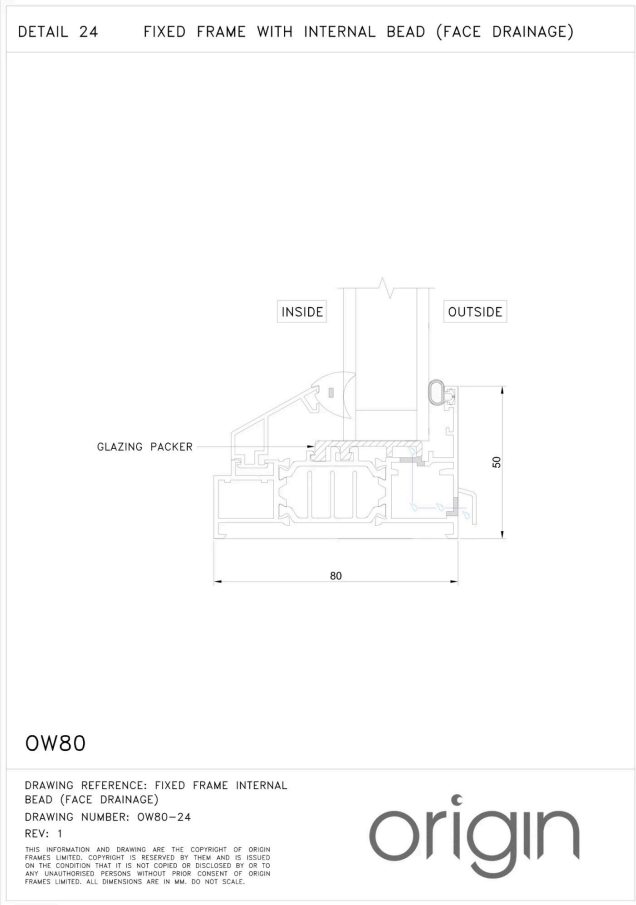
Mullion and Sash – Aerogel



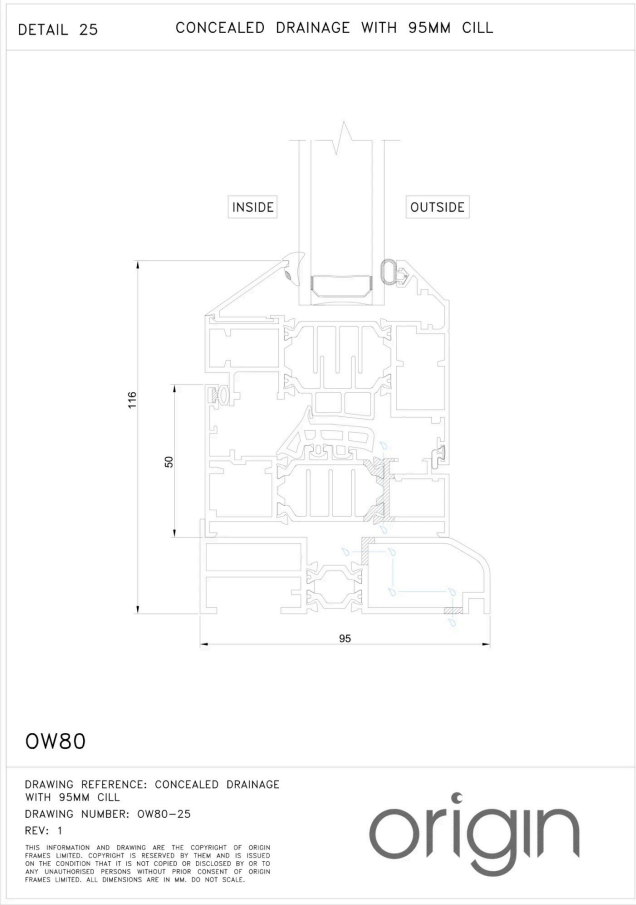
Glazing Bar



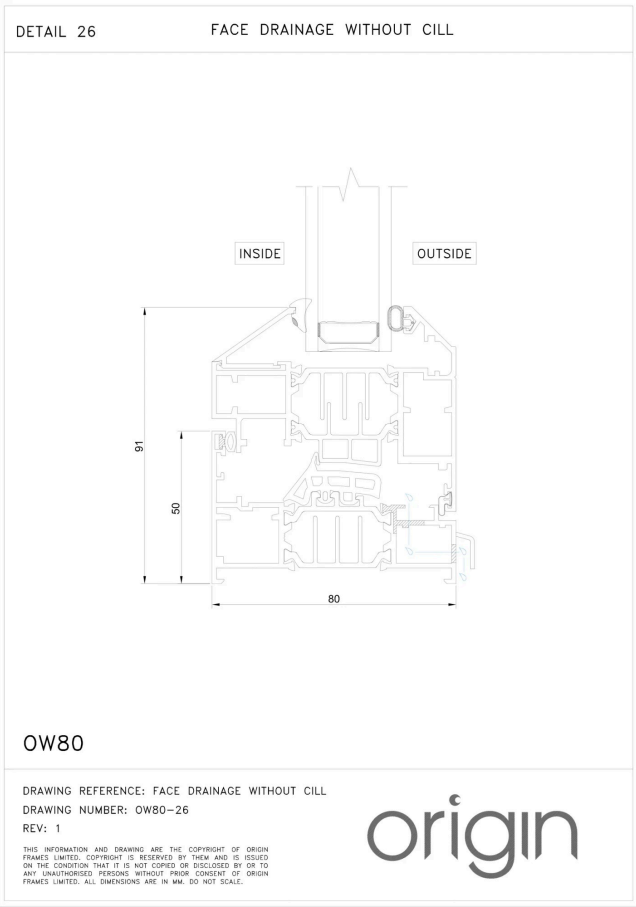
Fixed Frame with Internal Bead – Face Drainage



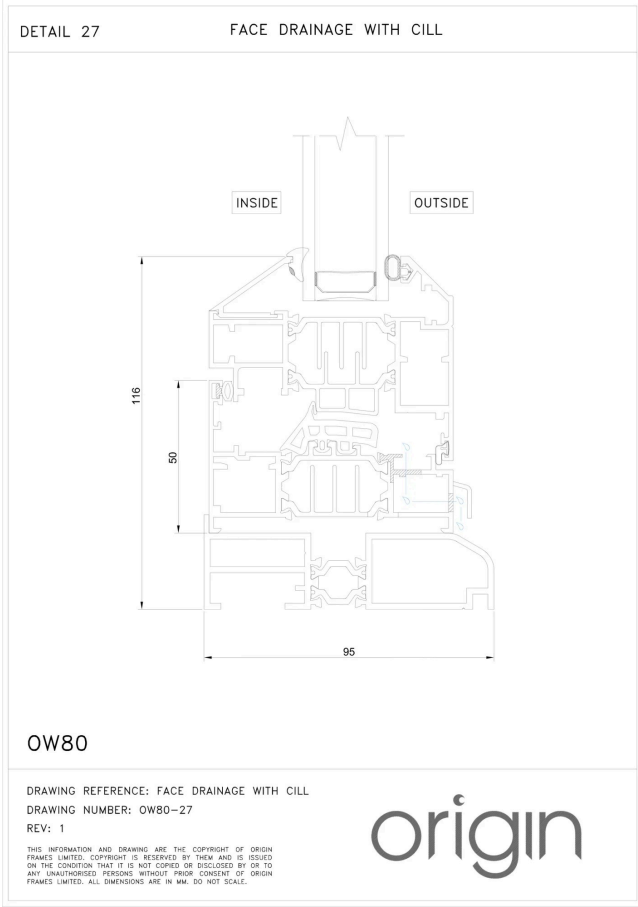
Concealed Drainage – 95MM Cill



Face Drainage



Face Drainage with Cill





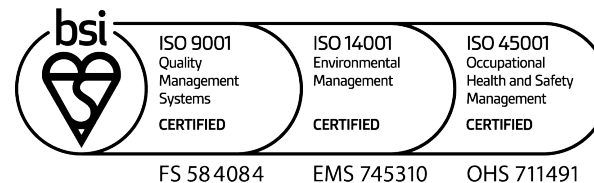
Accreditations

Quality Assured

At Origin, we are dedicated to delivering products of the highest quality, supported by the best levels of service and efficiency. We are well known for our meticulous attention to detail, taking pride in everything we do. This includes not settling for today – we are always learning, innovating, evolving and improving. Put simply, we're on a quest for perfection. It's an ethos that has become the very heart of Origin.

From products to processes, or even our sustainability, our culture encourages continuous improvement. We've put this to the test by going for prestigious accreditations. We are very proud to have achieved these and feel they show our ethical and moral dedication to operate in the best way, not because we are told to, but because it's the right thing to do. Here are some details on what we've achieved so far.

[LEARN MORE](#)



Thank you for reading the
OW80 Spec Guide
2.280.8

Engineering beauty
in *every* detail.