



Aluminum Secondary Glazing

Specification Guide

June 2012



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Product Specifications

General Information

Secondary Windows will be manufactured as a factory glazed product. The standard options will come complete with cover strips, catches and hinges where required.

- All catches are silver in colour and can be supplied non-locking or Allen Key Locking. Black Catches are available on RAL Colours

Colour Options

- White.
- Silver Anodised.
- Brown.

All standard RAL colours are available (subject to surcharge)

Gaskets

- Black U-Channel Gasket

Glazing Thickness

- 4mm Glazing
- 6mm Glazing
- 6.4mm Laminated

Glass Types

- 6.4 Laminated glass for additional safety.
- Pilkington K™ glass for increased thermal performance.
- Stadip Silence Acoustic glass for enhanced noise reduction.
- Obscure glass with 5 levels of privacy.

Toughened Safety Glass

Passes BS 12600-2002 Safety Glass for Use in Buildings



BS EN 12600:2002
Licence No: KM 518547
Safety Glass for
Use in Buildings

Technical Information

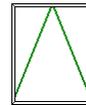
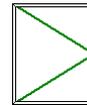
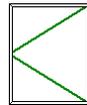
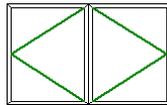
- All sliding options will be supplied as standard configuration unless clearly stated on the order form.
- All frames will be supplied glazed with 4mm single glass as standard.
- Foam can be supplied in 5m rolls
- All price list grids include 4mm annealed single glass as standard however we strongly recommend the use of toughened glass.
- When panels exceed the recommended maximum sizes for 4mm glass it may be necessary to change the glass specification to achieve the panel size you require (See page 11 for glass price additions).
- Glass panels should not exceed 1000mm x 1500mm when using 4mm float glass.
- Lift out panels should not exceed 1.5m² (at this size they weigh approx. 20kg). It is recommended that all panels that can be removed i.e. lift-outs and horizontal sliding panels are glazed with either 4mm Tuff or 6.4mm laminated safety glass.
- Horizontal sliding panels should not exceed 2400mm high.
- Maximum overall frame width available is 4700mm. (4 & 5 Pane Only).
- All panel heights and widths are measured from the edge of frame to the centre of the mullion.
- Vertical sliders should not exceed 1500mm wide x 2400mm high.
- The horizontal and vertical slider outer frame is 50mm front to back and with a low 35mm sight line all round.
- Vertical sliders up to 1000mm wide will be supplied with one Fitch catch. Wider vertical sliders will have two Fitch catches 250mm from each end.

Style Descriptions

Fully Fixed
Secondary



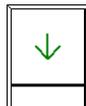
Hinged
Secondary



Lift Out
Secondary



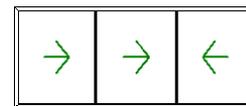
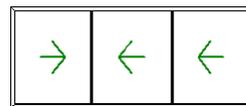
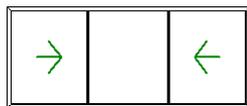
Vertical
Secondary Sliders



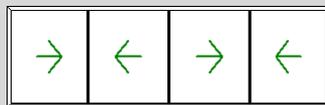
2 Pane
Horizontal Slider



3 Pane
Horizontal Slider



4 Pane
Horizontal Slider



5 Pane
Horizontal Slider



General Notes and Surveying

- All secondary windows are designed to either face fix or reveal fix.
- It is recommended that when measuring the window reveals, several width and height measurements should be taken. 6mm or less is then deducted from the smallest measurement to determine the window size.
- If the aperture is not square this deduction may have to be amended accordingly.
- For windows that are face fixed against the primary window or timber subframes we can supply self adhesive foam which is designed to insert into the Outer frame channel creating a compressed seal. This is optional on our order forms.

Installation

- There are various glazing options available for our secondary system up to a maximum of 6.4mm (this would include the use of Stadip Silence glass). Generally speaking the windows would be set 100mm from the primary glass pane for optimum sound reduction.
- It is possible to fix the secondary frames directly to the primary window bearing in mind this will not always provide the optimum glass to glass cavity and the primary window hardware may foul the operation of the secondary window.
- When setting back 100mm in the reveal several fixing methods can be used, horizontal sliders can be fixed directly to the reveal, through the sides of the frame.
(Note: Do not drill into the bottom track as the roller wheels travel in the track section).
- The bottom section can either be adhered to the window board or face fixed into a baton as described below.
- For face fixing:- Lift Out, Fixed, and Vertical Sliders 100mm from the primary window it will be necessary to provide timber batons (usually 2 x 1 inch planed timber,) around all four reveal sides allowing the secondary to be screwed directly to the batons.

Vertical Sliders

- Our vertical sliding secondary is manufactured and delivered as a glazed up item. Carefully remove the plastic cover trims from the outer frame using a flat blade or Stanley knife and determine the position of your screw fixings (Not Supplied). Pencil mark the aluminium channel usually 100mm from each corner and centred at approximately 300mm centres thereafter face drill the outer frame suitable for your screw fixings.
- The frame should be lifted into the reveal, set plumb and level at the desired position from the primary window and care taken that the aluminium sections are correctly packed and supported at the critical positions. It is advisable to initially wedge and pack the window in place whilst it is squared and levelled.
- Once the window is set correctly and secured with two or three screws initially it may be advisable to carefully operate one panel checking again that it runs square within its outer frame before final fix is carried out.
- Please note our vertical sliding panels do not tilt in for cleaning purposes.

NB. Face fixing vertical sliders directly to the primary window will restrict cleaning from the inside.

Horizontal Sliders

- All horizontal sliding panels should be removed whilst preparing and drilling the outerframe. Once packed and aligned, two or three screws down each side (excluding the bottom track) should be used to secure. Be

aware that in the case of horizontal sliders the track must be flat and level, if it is tipped even slightly the Fitch catches may not align correctly.

- The sliding panels can be lifted into place by dropping the wheels into the track first and ensuring the panel is the correct way up with the nylon wheel blocks at the bottom. It is important to make sure the panel is securely pressed down onto the wheel carriers and can slide freely to ensure the outer frame is fitted plumb and square.

Hinged Casements

- Care should be taken when surveying that allowance is made in the width for hinges and catch which is a total of 50mm.

Lift-Outs

- These are face fixed and size permitting can be installed with the panels in place which helps when checking they are square etc.

Fully Fixed

- These are face fixed and designed as a permanent panel. Care should be taken to make sure the glass is clean before fixing to the primary window frame. It is strongly recommended that foam tape is used for an optimum seal.

All Products

- It is usual after installing the Secondary window to fill gaps between the outer frame and the reveal. Dependant on the size of the gaps and once the plastic screw cover trim has been fitted they can either be covered with D moulds (not supplied) or silicone/caulk sealed using the correct sealant. Acoustic mastic can be sourced from your sealant supplier.

Benefits of Upgrading to Secondary Glazing with Pilkington K glass

Upgrade to Pilkington K™ Glass



Pilkington K Glass™ can be used in secondary glazing, with the Pilkington K Glass™ as the inner pane with the coating facing the air gap between the two panes. Although the coated surface will have to be cleaned occasionally, it is generally protected by being in the cavity and washing with clean soapy water or a clear window cleaning solution should maintain it in good condition.

As with any secondary glazing, there is a risk of condensation on the inner surface of the outer pane, unless the air gap has some ventilation to the outside, possibly just through gaps in the existing window.

for Increased Thermal Performance.

NB. A secondary glazed window using Pilkington K Glass™ does not give sufficient insulation to meet the requirements of Part L England and Wales and Part J Scotland but will offer a noticeable thermal improvement over existing single glazed windows when full replacement double glazing is not practical.

The following table shows how choosing secondary glazing with Pilkington K Glass™ can offer extra thermal performance over standard clear glazing.

Fitting Secondary Glazing to Existing Single Glazed Primary Windows	U Value	Thermal Improvement
Existing 4mm Single Glazing	5.8 W/m ² k	
Secondary Fitted with 4mm Clear Glass	2.8 W/m ² k	51% Improvement
Secondary Fitted with 4mm Pilkington K Glass	1.8 W/m ² k	69% Improvement

Fitting Secondary Glazing to Existing Single Glazed Primary Windows	U Value	Thermal Improvement
Existing 28mm Pilkington K Unit (No Argon)	1.7 W/m ² k	
Fitted behind existing Pilkington K Unit (No Argon)	0.9 W/m ² k	47% Improvement

All values calculated using Pilkington Spectrum Program version 3.0.1 and are centre pane glass values

Assumes Secondary is fitted 60mm from primary window

What is Stadip Silence Glass?

SGG STADIP SILENCE contains a special acoustic interlayer which not only bonds the glass but also acts as a dampening core between the glass panes, preventing sound frequencies vibrating from one pane of glass to the other.

Normal windows have a `resonant frequency`, at which they vibrate more significantly reducing their acoustic insulating performance. Stadip Silence Glass in secondary windows will considerably reduce the passage of sound frequency.

Additional benefits are its full compliance as a security and safety glass with the benefit of UV filtration helping protect furnishings from fading.

SGG STADIP SILENCE is ideal for any application in the home where there is a need to insulate against excessive noise levels. It is particularly effective against traffic noise when used in windows facing onto busy roads.

When combined with Secondary Glazing, if full double glazing replacement cannot be achieved, you will notice a considerable difference compared to your existing single glazed window.

Advantages

- Creates more peaceful interiors by reducing noise pollution from air, road traffic, general street noise and noisy neighbours.
- Is a safety glass and can be used in safety critical locations.
- Its interlayer is transparent and colourless, meaning SGG STADIP SILENCE resembles ordinary glass, with excellent optical quality.

Sources of Noise

Noise is any sound that is unwanted, usually because it distracts or disturbs us. Noise can come from a variety of different sources but there are usually two forms;

Airborne

These are sounds which travel in waves through the air and enter our ears. Airborne noise can travel from outside a building to inside.

Typical examples are:

- Music
- Children playing
- Traffic noise

Impact

These are sounds that are transmitted via vibration through a physical structure such as a conservatory roof.

Typical examples are:

- Rain
- Hail

Sound can be characterised in different ways but primarily in terms of intensity and frequency;

The sound intensity describes how soft or loud the sound is (db). A low db value indicates a soft sound- a high db value a loud sound.

Frequency (or pitch) describes how high or low pitched the sound is (Hz).

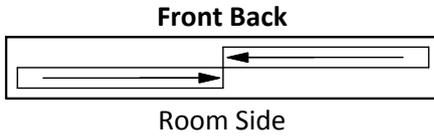
The result

Stadip Silence Glass absorbs and weakens the sound, helping to act as a barrier to both airborne and impact noise, making your home, hotel room or office a much quieter place.

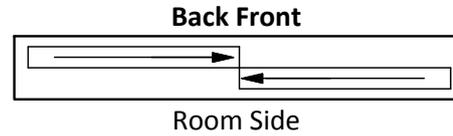
Horizontal Sliders Standard Styles

Horizontal sliders are supplied with the outerframe crimped. If site access is a problem with larger frames (lifts, stairs etc) they can be supplied in kit form.

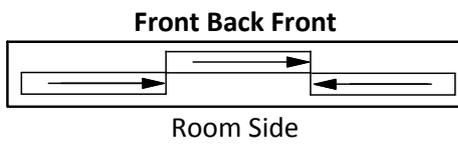
2 Pane Standard



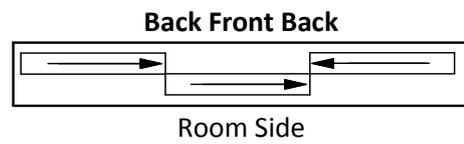
2 Pane Non Standard



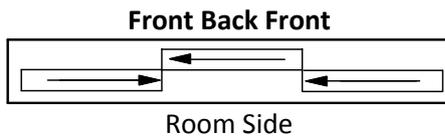
3 Pane Right Standard



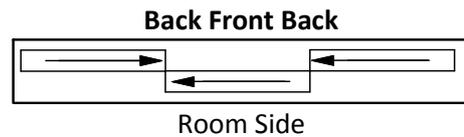
3 Pane Right Non Standard



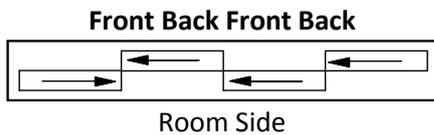
3 Pane Left Standard



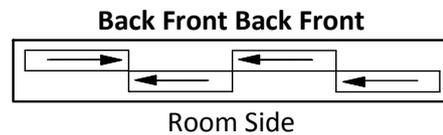
3 Pane Left Non Standard



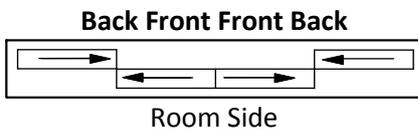
4 Pane Standard



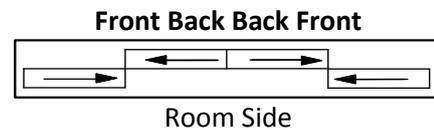
4 Pane Non Standard



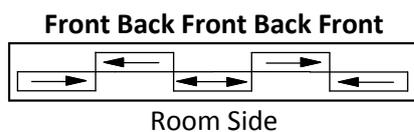
4 Pane Hatch Standard



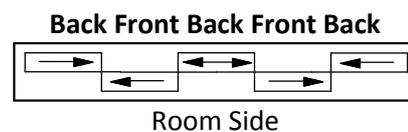
4 Pane Hatch Non Standard



5 Pane Standard



5 Pane Non Standard



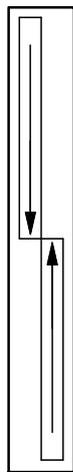
All panels will be supplied as standard unless stated clearly on order.

Vertical Sliders Standard Styles

- When viewed from inside the bottom panel will be on the front track.
- When either panel is fully opened the horizontal rails do not line through therefore we recommend the secondary be fitted at least 50mm away from the existing window to allow for ease of operation of existing casement window stays.
- It is advised than when a vertical slider requires safety glass, both panels are supplied in safety glass to allow for the fact the window may be left in the open position.

Vertical Standard

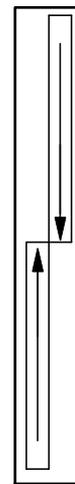
Back Front



Room side

Vertical Non Standard

Front Back



Room side

All panels will be supplied as standard unless stated clearly on order.

Hinged Secondary

- Hinges and catches take up 25mm and 15mm respectively of the width or height of frame.

