

WICLINE 115 AFS

The solution for the highest demands



Composite window system



» Composite window system WICLINE 115 AFS

With its new composite window system WICLINE 115 AFS, WICONA provides architects, planners and fabricators the solution for sophisticated projects with particularly high demands on thermal performance, sound insulation and sun protection – suited for both new build and renovations.

The WICLINE 115 AFS composite window system combines an internal and external frame and sash, creating a cavity between the two which improves the system's thermal and sound performance without additional measures.



WICLINE 115 AFS is the answer for building projects with the highest technical requirements in terms of thermal performance, sound insulation and sun protection – for new buildings as well as renovations.



» Developed for advanced buildings

Over the years WICONA has consistently applied its technical knowledge and innovation capability for creating bespoke solutions to perfectly meet the needs of its partners. Composite windows are perfectly adapted for buildings such as hospitals and hotels.



WICLINE® 115 AFS

Composite windows are perfectly adapted for the health sector: hospitals, clinics, care homes for the elderly, laboratories, medical research centers and all other buildings where hygiene and patient comfort are key attributes.

The new aluminium window WICLINE 115 AFS is the perfect answer to the specific needs of the health sectors' buildings: low air permeability, high sound insulation, high thermal performance, total light control and flat surfaces for better hygiene.

WICLINE 115 AFS aluminium composite windows is also perfectly suited to the specific demands of hotels where the comfort of guests is key. Whilst travelling the world, everybody seeks to relax in the comfort of a hotel room: quiet at any time, dark when rest is needed and with a comfortable and stable room temperature.



Optimized sound insulation



Pressure compensation of the cavity



Concealed blind system



Highest comfort

» Certified performance

This makes the difference

A perforated glazing bead with a concealed stainless steel filter is integrated at the top of the outer sash – a genuine innovation by WICONA which significantly increases the window's features in terms of protection and comfort.

The integrated perforated glazing bead with concealed stainless steel filter offers protection against dirt and insects and allows for compensation of the pressure between the air within the cavity and the outside air. This not only avoids the cavity overheating but also significantly reduces the build-up of humidity within the cavity, which helps prevent condensation.

Based on various research trials, conducted under real-life conditions in different climatic zones, the WICLINE 115 AFS new composite window system was successfully tested and optimised particularly with regard to condensation performance.

The result is impressive: condensation is reduced to a minimum – officially certified by CSTB institute in France (Centre Scientifique et Technique du Bâtiment).

Not only is the risk of condensation minimized in WICLINE 115 AFS, the gaskets in the cavity between the sashes are made in anti-fogging quality. Regular gaskets can outgas, especially under the influence of heat, and leave a deposit in the form of a visible film on the glass surfaces inside the cavity. The gaskets in the cavity of WICLINE 115 AFS with anti-fogging technology were designed to reduce outgassing, minimizing the risk of a film forming on the glass.

This is the difference between traditional composite window systems and the new WICLINE 115 AFS.

We call it Advanced Fenestration System – AFS.



Integrated sun protection system – aesthetic appeal

WICONA's composite window system offers a fast and reliable "plug and play" installation of a motorised sun protection system between the outer and inner sashes. Sheltered against weather and wind, the sun protection system can be used regardless of weather conditions – without compromising the window's aesthetic appeal.

As a result of its optimised profile geometry, WICLINE 115 AFS offers concealed blind installation. With the blinds closed, only the slats are visible. Header and bottom rail are fully integrated into the frame, resulting in a uniform appearance – both internally and externally – which also minimizes daylight penetration from the sides.

WICLINE 115 AFS is available with two sash options. Developers and building owners can specify a sash with integral sun protection from WICONA to maximise performance and reliability. Alternatively, there is a sash with a universal zone for sun protection which allows the use of a variety of sun protection products readily available in the market in order to cater for specific client demands.

The external sash can be opened independently for maintenance and cleaning of the blind system.



Highest energy efficiency

Due to the ETC Intelligence® thermal break zone and its innovative and intelligent mix of materials, WICLINE 115 AFS achieves outstanding thermal performance up to passive house level – without the need for conventional foam insulation inserts.

WICLINE 115 AFS achieves U_w values below $0.80 \text{ W}/(\text{m}^2\text{K})$ with a 115-mm frame depth and a sleek sight line of only 125 mm, a unit size of 1230 mm x 1480 mm and U_g value of $0.60 \text{ W}/(\text{m}^2\text{K})$ at $0.031 \text{ W}/(\text{mK})$ psi.





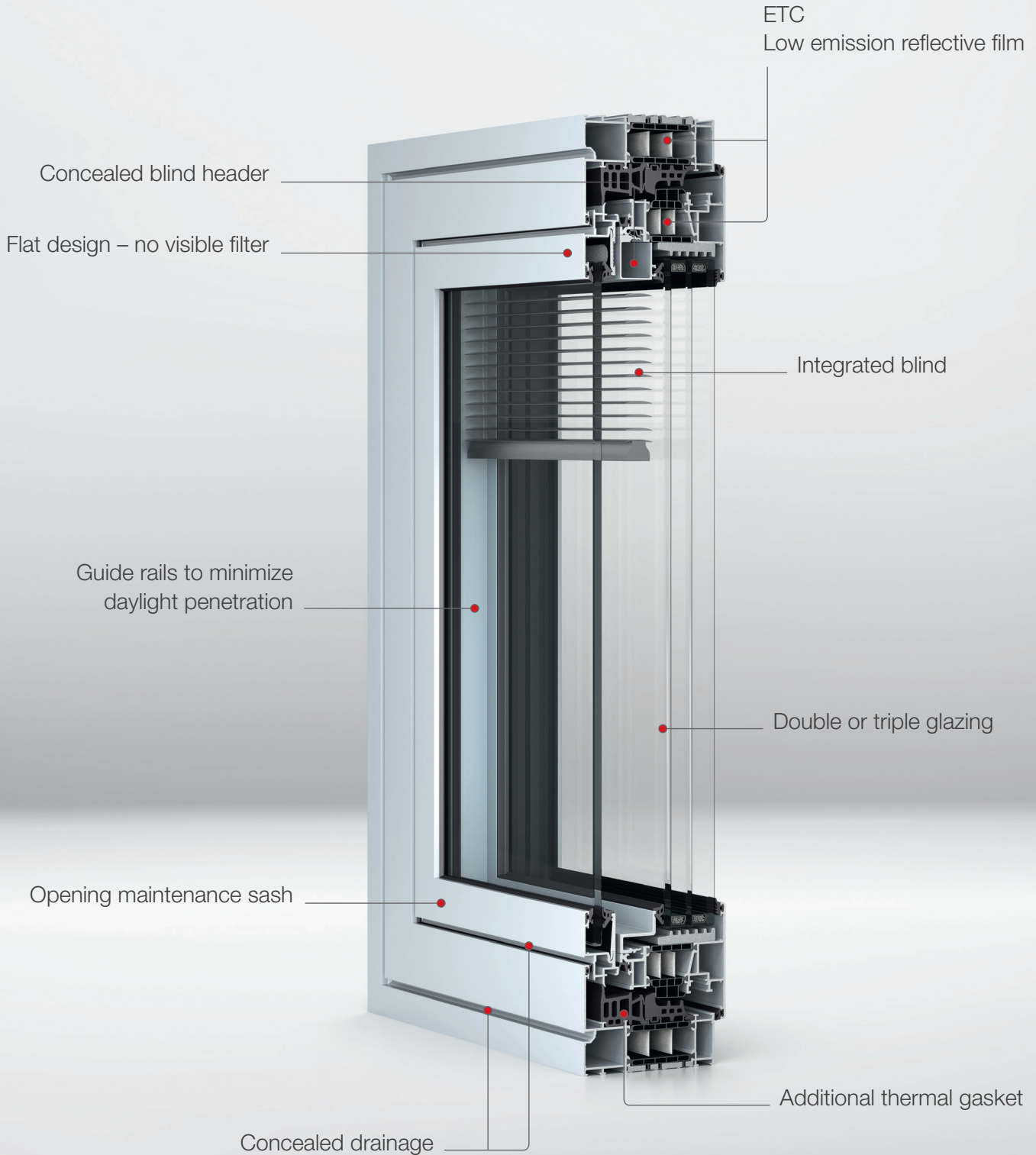
» WICLINE 115 AFS – Your advantages at a glance

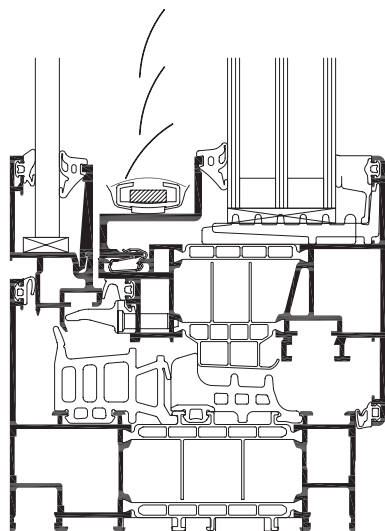
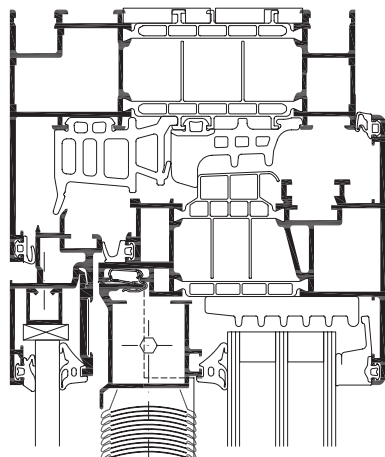
- For building projects with the highest technical requirements in terms of thermal performance, sound insulation and sun shading – suited for both new build and renovations
- Pressure compensation of the cavity
- Optimized condensation performance within the cavity, officially confirmed by CSTB institute in France (Centre Scientifique et Technique du Bâtiment)
- Concealed blind system which is protected against weather conditions and dirt, with limited daylight penetration on the sides
- Optimized sound insulation up to 50 dB
- Maximum energy efficiency due to outstanding thermal performance: U_w values below $0.80 \text{ W}/(\text{m}^2\text{K})$ with a 115 mm frame depth and a sleek sight line of only 125 mm, a unit size of 1230 x 1480 mm and U_g value of $0.60 \text{ W}/(\text{m}^2\text{K})$ at $0.031 \text{ W}/(\text{mK})$ psi
- Concealed drainage
- Highest operating comfort
- Easy installation, maintenance and cleaning due to independently operable outer sash

WICLINE 115 AFS is a high insulation composite window system combined with outstanding sound insulation and sun protection shading performance – the system is flexible and perfectly aligns with different architectural styles.

» WICLINE 115 AFS

Sash with integral sun protection





System test results / CE product pass in accordance with DIN EN 14351-1:2010-08

Description	Standard	Class
Thermal insulation U_f	EN ISO 10077-2	1.1 – 1.3 W/(m ² K)
Thermal insulation U_w	EN ISO 10077-1	below 0.80 W/(m ² K)*
Sound insulation R_w (C;C _{tr})	EN ISO 717-1	up to 50 (-1;-4) dB
Air tightness	EN 12207	4
Water tightness	EN 12208	up to E1200
Wind tightness	EN 12210	up to C5/B5
Mechanical durability	EN 13115	up to 4
Durability repeat opening	EN 12400	up to 3

* at a window size of 1230 mm x 1480 mm and $U_g = 0.6$ W/(m²K), $\psi = 0.031$ W/(mK)

Technical performance

Profile technology:

- Profile depth: 115 mm
- Construction depth: 125 or 135 mm
- Infill thickness up to 48 mm (58 mm) and up to 100 mm with fixed glazing
- Pressure compensation of the cavity
- Optimised condensation performance within the cavity, officially confirmed by CSTB Institute in France (Centre Scientifique et Technique du Bâtiment)
- Concealed blind system which is protected against weather conditions and dirt, no daylight penetration on the sides
- Highest operating comfort
- Easy installation, maintenance and cleaning due to independently operable outer sash
- Optional sash with **universal zone for sun protection**

Profile sightlines:

- Frame profiles from 84 mm up to 94 mm
- Transom profile from 128 mm up to 158 mm
- Sash profile 35 mm

Thermal performance:

- U_w values below 0.80 W/(m²K) with a 115-mm frame depth and a sleek sight line of only 125 mm, a unit size of 1230 mm x 1480 mm and U_g value of 0.60 W/(m²K) at 0.031 W/(mK) psi

Sound insulation:

- Up to 50 dB (Sound insulation glazing inside, single glazing outside)
- Up to 43 dB (Insulated glazing inside, single glazing outside)

Hardware:

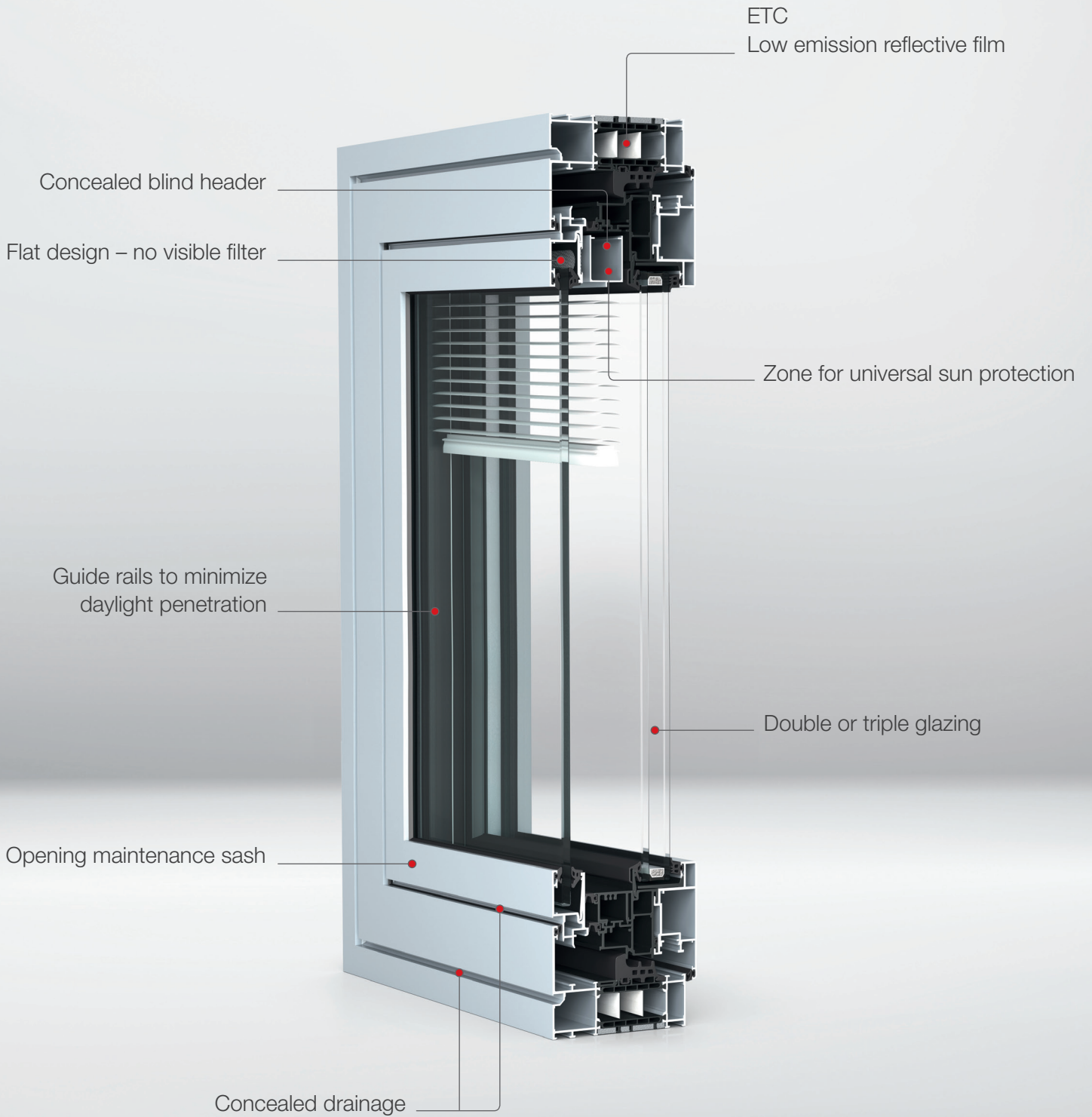
- High quality concealed hardware with DPS (Direct Positioning System). Components can be installed in any order. Sash weights for:
 - concealed hinges up to 160 kg
 - surface-mounted hinges up to 200 kg
- Sash weight up to 200 kg
- Sash sizes (w x h): up to 1200 mm x 2500 mm

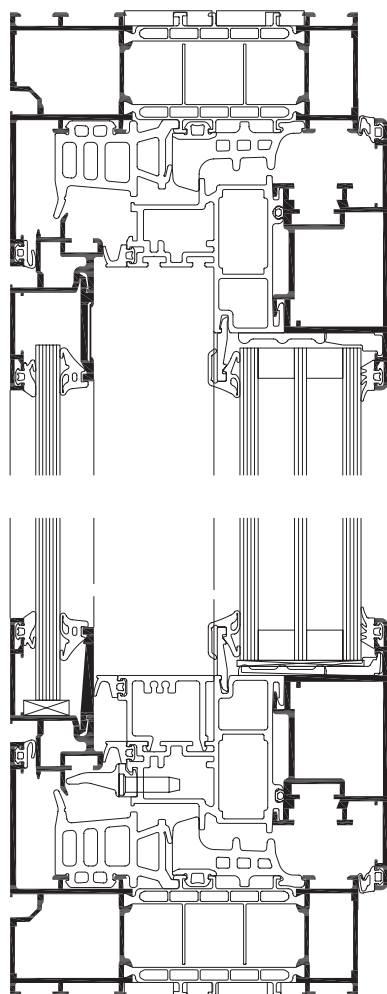
Opening types:

- Turn, turn-tilt, tilt, tilt-first, fixed field

» WICLINE 115 AFS

Sash with universal zone for sun protection





System test results / CE product pass in accordance with DIN EN 14351-1:2010-08

Description	Standard	Class
Thermal insulation U_f	EN ISO 10077-2	1.1 – 1.3 W/(m ² K)
Thermal insulation U_w	EN ISO 10077-1	up to 0.83 W/(m ² K)*
Sound insulation R_w (C;C _{tr})	EN ISO 717-1	up to 50 (-1;-4) dB
Air tightness	EN 12207	4
Water tightness	EN 12208	up to E1200
Wind tightness	EN 12210	up to C5/B5
Mechanical durability	EN 13115	up to 4
Durability repeat opening	EN 12400	up to 3

* at a window size of 1230 mm x 1480 mm and $U_g = 0.6$ W/(m²K), $\psi = 0.031$ W/(mK)



Technical performance

Profile technology:

- Profile depth: 115 mm
- Construction depth: 125 or 135 mm
- Infill thickness up to 40 mm (50 mm) and up to 100 mm with fixed glazing
- Pressure compensation of the cavity
- Optimised condensation performance within the cavity, officially confirmed by CSTB Institute in France (Centre Scientifique et Technique du Bâtiment)
- Concealed blind system which is protected against weather conditions and dirt, no daylight penetration on the sides
- Highest operating comfort
- Easy installation, maintenance and cleaning due to independently operable outer sash
- Optional sash with **integral sun protection**

Profile sightlines:

- Frame profiles from 84 mm up to 94 mm
- Transom profile from 128 mm up to 158 mm
- Sash profile 35 mm

Thermal performance:

- U_w values below 0.83 W/(m²K) with a 115-mm frame depth and a sleek sight line of only 125 mm, a unit size of 1230 mm x 1480 mm and U_g value of 0.60 W/(m²K) at 0.031 W/(mK) psi

Sound insulation:

- Up to 50 dB (Sound insulation glazing inside, single glazing outside)
- Up to 43 dB (Insulated glazing inside, single glazing outside)

Hardware:

- High quality concealed hardware with DPS (Direct Positioning System). Components can be installed in any order. Sash weights for:
 - concealed hinges up to 160 kg
 - surface-mounted hinges up to 200 kg
- Sash weight up to 200 kg
- Sash sizes (w x h): up to 1200 mm x 2500 mm

Opening types:

- Turn, turn-tilt, tilt, tilt-first

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