



ALUMINUM SECTION

WINDOW PURE SERIES
HERITAGE ALUMINUM





WINDOW PURE SERIES – HERITAGE ALUMINUM

1.1 DESCRIPTION

The puRE - Heritage aluminum window consists of a fixed section above, and an opening section (from the inside) below, separated by a shallow mullion. This configuration gives an appearance that is close to that of a sash. This window offers exceptional thermal and structural performance and is designed according to the rainscreen principle. The operating section is optionally swinging, tilt-and-turn, or hopper.

1.2 MATÉRIALS

1.2.1 Extrusions

1. The frame

The frame will be composed of a non-tubular outer profile and a tubular 6063-T5 aluminum inner profile, with walls of a minimum of 1.4 mm. A more rigid tubular outer profile, with walls with a thickness of 1.6 mm, is available as an option.

The aluminum extrusions of the frame will be connected by 2 extruded polyamide bars reinforced with 25% fiberglass, 37 mm wide and 1.8 mm thick. The bars will be mechanically crimped with the aluminum extrusions in order to obtain a joint assembly resistant to a minimum shear of 360 kg over a length of 100 mm.

The window will be made of a single frame and the fixed section and the opening section will be separated by a shallow structural horizontal mullion (no binding).

The window sill room will be equipped with water drainage holes.

The assembled frame sections will have an overall thickness of 51 mm and a depth of 152 mm.

The horizontal structural mullion will have an overall thickness of 81 mm, and a depth of only 73 mm, allowing for the desired appearance of a sash window.

2. The glass stopping

The interior glazing beads, 12.5 mm high, will be made of tubular aluminum profiles of 6063-T5 alloy, whose walls will be 1.4 mm thick.

The glazing beads will be designed for snap-in installation without screws, making it easy to change the sealed unit from the inside.

1.2.2 Weather strips

The tilt-and-turn window will be equipped with 2 gaskets on its perimeter, the main one having two (2) points of continuous contact between the frame and the shutter.

The seals will be pressured into grooves in the frame, suitable for this purpose, allowing for easy replacement of the seals if required. In addition, the main trim will be designed to fill a portion of the cavity between the frame and the shutter, reducing air convection at that location, thereby decreasing the overall conductance (Ug) of the window.

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1.2.3 Hardware (operating section)

A main mechanism consisting of a multi-point mechanism that secures the sash to the frame by means of two (2) to four (4) locking points, depending on the size of the window and the required wind resistance.

Rack and pinion handle with a contemporary design made of aluminum-zinc alloy.

A 90° rotation of the handle towards the center of the window allows the swing and hopper opening. Only if the opening section is tilt-and-turn, an additional 90° upward rotation allows for an inward-tilted opening similar to a hopper window.

Damper transmission rods are inserted directly into the "Euro Groove" type aluminum extrusions.

The stainless steel locking plates, installed on the frame and combined with the strikers of the shutter transmission rods, will ensure a good seal and keep the shutter in the closed position. The adjustment of the locking system will be done directly on the strikers of the shutter connecting rods.

The flap will have two (2) exposed interior hinges, made of aluminum-zinc alloy, allowing a total flap mass of 80 kg.

The rotation pivot and the fixing plates of the frame and shutter hinges will be made of stainless steel and will allow adjustment in height, width and depth.

The stainless steel hinge fixing screws will be accessible when the shutter is in the open position, allowing them to be easily replaced if required.

A mechanism limiting the opening to 100 mm can be installed for safe ventilation.

A dimmer with adjustable friction, limiting the opening of the damper to 90° will be offered if the opening limiter to 100 mm is not required.

1.2.4 The mosquito net

The screen will be installed and held outside the window frame, by 4 hooks mechanically attached to the screen. It will be easily removable from the inside and outside.

The insect screen will be made of an aluminum profile frame assembled by brackets held in place by insertion.

The mesh will be made of fiberglass or aluminum.

1.2.5 Interior and exterior finishes

All the exposed aluminum of the frames and glazing beads will be painted with a paint of the following type:

Coloured Duracron® baked enamel finish :

Black K90421 White

K1285

Commercial brown K7390 Anthracite

RAL7016

Two-component acrylic polyurethane paint available.

Anodizing available.

Possibility of different interior and exterior colors.

Optional color development.

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1.3 PRODUCTS

- 1.3.1 The joints of the frames will be precision machined, assembled and sealed at the factory, so that they are waterproof and represent clean lines.
- 1.3.2 A 6° slope at the window sill will ensure that water is directed to the outside of the window frame.
- 1.3.3 The fixed section will be designed to accommodate the following sealed units:
 - 1. With two sheets of glass, with a total thickness of 22.2 mm,
 - 2. Two 6 mm glass sheets or three glass sheets, with a total thickness of 35.8 and 35.1 mm respectively,
 - 3. With three glass sheets with a total thickness of 41 mm.
- 1.3.4 The shutter joints will be cut to 45°, sealed and mechanically assembled by screwed assembly brackets, so that they are watertight and represent clean lines.
- 1.3.5 The shutter will be designed to accommodate sealed units with two sheets of glass, with a total thickness of 22.2 mm, and, optionally, sealed units with a thickness of 35.8 mm, two sheets of 6 mm glass, or 35.1 mm thickness with three sheets of glass.
- 1.3.6 The sealed unit will be rested on the frame and the inner glazing bead against an elastomeric thermoplastic (TPE) pressure packing to obtain compression contact at the inner and outer perimeters of each sealed unit.
- 1.3.7 The frame's interior extrusions will be pre-drilled at the factory, in preparation for their mechanical attachment to the frame of a building.
- 1.3.8 If several windows are juxtaposed, they will be connected to each other with aluminum bars screwed to the jambs and covered with an aluminum cover.
- 1.3.9 The windows will be built with precision and square.
- 1.3.10 The replacement of the sealed units of the fixed section and the opening section must be done from the inside, without having to remove the flap.

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1.4 GLAZING

- 1.4.1 The sealed units will consist of two (2) or three (3) sheets of transparent single glass 3 mm thick or more, separated at their edges by a non-conductive spacer (with desiccant), with the space between the two sheets of glass filled with 90% or more argon gas.
- 1.4.2 The sealed unit will have at least one sheet of glass with low-e film, thus ensuring good energy efficiency.
- 1.4.3 The space between the glass sheets will vary depending on the thickness of the glass sheets (3, 4, 5, or 6 mm), the total thickness of the sealed unit (22.2, 35.1, 35.8, or 41 mm), and the number of glass sheets (2 or 3).
- 1.4.4 The sealed unit will be installed on rubber shims of 85A hardness of appropriate dimensions.
- 1.4.5 The thickness of the glass as well as its tempering will comply with the requirements of the National Building Code in effect.

1.5 THE OPTIONS

1.5.1 Glass

3mm, 4mm, 5mm or 6mm thick clear glass;
Bronze, grey, frosted or sandblasted tinted glass;
Tempered glass 3mm, 4mm, 5mm or 6mm thick;
6 mm thick brocaded or laminated glass;
Glass with a 6 mm thick thermoformed surface;
Any other glass available on request.



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1.5.2 The frame

U-shaped interior frame moulding made of aluminum extrusion mechanically installed to the window frame to accommodate gypsum or other 1/2" thick interior siding.

38 mm and/or 63 mm inner frame extension and 38 mm outer frame extension made of aluminum extrusions. These extensions are mechanically installed on the surface of the inner and/or outer window frame.

The thermal barrier cavities of the frames and shutters of Energy Star certified products will be filled with a solid polystyrene to reduce air convection from these cavities, thereby decreasing the overall conductance (Ug) of the window.

1.5.3 Grilles

The grilles, made of rolled aluminum bars, will be located between the glass sheets of the sealed unit of the window.

The grilles will be made of painted aluminum of the same colour on both sides or of different colours on the outside and inside.

Models: rectangular, flat, or Georgian. Widths and finishes as available on the market.

1.5.4 Simulated divided lites

The surface bars will be applied to the outer and inner faces of the sealed unit, facing each other. The space between the outer and inner beams, inside the glazing, will be filled with a piece of rolled aluminum with the appearance of a spacer.

The beams will be made of a 6063-T5 alloy aluminum profile, the wall of which is 1.5 mm thick. They will be attached to the outer and inner sides of the sealed unit with pre-glued tape on both sides. Available beam widths: 44.45 mm and 22 mm.

1.6 MAINTENANCE SHEET

A sheet with the instructions needed to clean and maintain the windows will be given to you when your order is delivered.

1.7 WARRANTY

A manufacturer's warranty certificate will be given to you upon delivery of your order. The manufacturer reserves the right to change the characteristics of its products without notice.



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