



A L U M I N U M   S E C T I O N

# CASEMENT WINDOW ALLURE SERIES

## ALUMINUM





## CASEMENT WINDOW ALLURE SERIES - ALUMINUM

### 1.1 DESCRIPTION

The ALLURE aluminum casement window will be equipped with an outward opening shutter. This window, which offers exceptional insulation and structural performance, is designed according to the rain screen principle.

### 1.2 MATERIALS

#### 1.2.1 Extrusions

##### 1. Frame

The frame will be made of aluminum profiles of alloy 6360-T5 with walls thickness from 1.30 mm to 1.40 mm, depending on the function and position of the aluminum walls.

The aluminum extrusions of the frame will be connected by a black GEON 6935 PVC tubular profile 46.3 mm wide, 15 mm high and 1.8 mm thick, serving as a thermal barrier. The PVC profile will be crimped with the aluminum extrusions mechanically to obtain an integral assembly resistant to a minimum shear of 275 kg over a length of 100 mm.

One of the two cavities of the thermal barrier will be filled with solid polystyrene to reduce air convection between the hot and cold parts of the frame, thus reducing the overall conductivity (Ug) of the window frame (if Energy Star option selected).

The ALLURE series will use the same frame for the manufacture of exterior casement windows, exterior awning windows and fixed windows. An adapter will be installed on the inside frame portion of the window to convert the fixed window frame to a casement or awning window frame. This will make it easier to fit different types of openings in the same fenestration system.

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

The overall assembly of the frame will have an internal height of 65.4 mm and a depth of 152.4 mm. The height of the visible part of the outer frame shall be 15 mm.

##### 2. Shutter

The shutter, 47.4 mm high and 95.0 mm wide, is made of aluminum profiles of alloy 6360-T5 with a wall thickness of 1.30 mm to 1.40 mm, depending on the function and position of the aluminum walls.

The aluminum extrusions of the shutter will be connected by a 39.5 mm wide, 12 mm high and 2.0 mm thick black GEON 6935 PVC tubular profile acting as a thermal barrier. The PVC profile will be crimped with the aluminum extrusions mechanically to obtain an integral assembly resistant to a minimum shear of 275kg over a length of 100 mm.

The thermal barrier cavity will be filled with solid polystyrene in order to reduce air convection between the hot and cold parts of the damper, thus reducing the overall window conductivity (Ug)

(if the Energy Star option is selected).

Joints at 45° of the shutter parts will be assembled by means of rustproof screws driven through the walls and into the extruded flutes with the abutting sections.

The sill part of the shutter will be provided with water drainage holes.

### 1.2.2 Weather-stripping

The exterior casement window will be equipped on its perimeter with 2 continuous seals between the frame and the shutter. The main gasket serving as an air and vapor barrier will be integrated into the frame, while the other, serving as a rain screen, will be integrated into the shutter.

The main seal, made of vulcanized thermoplastic elastomer (TPV), will be inserted by pressure into a specially adapted groove allowing it to be easily replaced in case of breakage. In addition, it will be designed to fill a portion of the cavity between the frame and shutter, reducing air convection between the hot and cold parts of the frame-shutter assembly, thereby reducing the overall conductivity (Ug) of the window.

The shutter will be equipped on its perimeter with a rigid back-pile weather-stripping and inserted in the profile cavity.

### 1.2.3 Hardware

The easy-to-use multipoint latch lock, with adjustable compression, will be installed on the window frame to ensure hermetic closing by pulling the shutter strikers on the frame.

A concealed retaining stop (deflection limiter) will be installed inside the frame, on the side opposite the lock, when the window height is greater than 914 mm.

Sliding hinges will be made of stainless steel. They will be installed on the frame, in a double wall screw cavity for a firmer hold of the hardware. The hinges will be adjustable.

The single hinged arm opening mechanism will allow the shutter to open at 60° or 90°, depending on the size of the window, offset from the frame by 112 mm or 135 mm, for easy maintenance from the inside.

The double hinged arm opening mechanism will be installed on all windows 648 mm and wider.

### 1.2.4. Insect Screen

The screen will be installed on the inside of each opening shutter and will be easily removable.

The screen will be made of an aluminum profile frame, assembled by assembly brackets, held to the frame by a spring latch system integrated into the four assembly brackets.

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The wick will be made of fiberglass or aluminum, with a screen of 18x16 meshes per 625 mm<sup>2</sup>, held to the profile of the screen by a polyvinyl chloride profile.

A rolled aluminum screen frame option will be available.

### 1.2.5 Interior and Exterior Finish

All exposed aluminum of the frames and shutters will be painted with a Duracron® baked enamel finish:

Black K90421

White K1285

Anthracite RAL7016

Two-component polyurethane acrylic paint available.

Anodizing available.

Possibility of different interior and exterior colors.

Color development available.

Duracron® baked enamel finish available.

## 1.3 PRODUCTS

1.3.1 Frame and shutter joints will be precisely machined, assembled and sealed at the factory so that they are watertight and represent clean lines.

1.3.2 A 3° slope at the sill of the window will ensure the discharge of accumulated water to the outside of the window frame.

1.3.3 The shutters will be designed to accommodate 24.7 mm thick double sheet glass sealed units.

1.3.4 Sealed units will be surrounded by a black flexible PVC channel and press-fitted into the shutter extrusions.

1.3.5 Two (2) oblong drainage holes will be drilled on the frame and on the shutter, at the right locations, to allow water to drain off, satisfying the rain screen principle.

1.3.6 The opening shutters will each be equipped with:

One (1) set of concealed stainless-steel hinges.

One (1) multipoint latch lock

One (1) operating crank.

One (1) concealed shutter deflection limiter, located on the opposite side of the lock, if the height of the window is greater than 914 mm.

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- 1.3.7 For safety reasons, the flaps, screws and parts of the mechanisms cannot be removed from the outside.
- 1.3.8 The windows shall be accurately and squarely constructed with a maximum tolerance of plus or minus 1.5 mm for windows measuring 1.8 m or less diagonally, and plus or minus 3 mm for windows measuring more than 1.8 m.
- 1.3.9 The interior frame extrusions will be pre-drilled at the factory for mechanical attachment to a building structure.
- 1.3.10 If there are several sections in the same window, all sections will be bordered by the same frame using an aluminum mullion mechanically attached to the frame (Structural mode).
- 1.3.11 The glass will be replaced from the inside.

### 1.4 GLAZING

- 1.4.1 The sealed unit shall consist of two (2) transparent single sheets of glass 3 mm thick or more, separated by an argon-filled space obtained by means of a non-conductive spacer with integrated desiccant.
- 1.4.2 The inner glass sheet of the sealed unit (face 3) shall be made of low emissivity glass. This sizzling process is used in combination with argon gas to improve the energy efficiency of the window.
- 1.4.3 The spacing will be approximately 18.7 mm of air (variable depending on the thickness of the glass sheets) to give 24.7 mm thick sealed units.
- 1.4.4 Sealed units will be surrounded by a black flexible PVC channel and press-fitted into the sash extrusions.
- 1.4.5 A free space of approximately 3 mm will be left at the perimeter of the sealed unit allowing the necessary clearance for water drainage.
- 1.4.6 The thickness of the glazing will meet the requirements of the current National Building Code.

### 1.5 ASSEMBLY WITH AN OPENING OR ARCH

- 1.5.1 The window modules will have a frame depth of 152.4 mm.
- 1.5.2 The exterior and interior posts will be made of aluminum profiles of the same finish as the window, assembled by insertion and sealed.
- 1.5.3 The outside angle will be 45° or 22°.
- 1.5.4 The interior space of the assembly post will be filled with an insulating material and sealed to prevent water infiltration.
- 1.5.5 The modules of the bay or bow window will be assembled at its perimeter on 19mm plywood with zinc-plated steel screws.

## 1.6 OPTIONS

### 1.6.1 Glass

Double-sealed glass composed of two (2) sheets of clear glass 4 mm, 5 mm or 6 mm thick.

Bronze tinted glass, grey.

3 mm, 4 mm, 5 mm and 6 mm thick tempered glass.

Frosted or sand glass.

6 mm glass, brocaded or laminated.

6 mm glass with thermos-formed surface.

Any other glass available for the manufacture of sealed units.

### 1.6.2 Frame

J-shaped inner frame extension molding made of 14 mm extruded aluminum.

Mechanically installed on the inside frame of the window to receive gypsum or wood frame to be painted or covered with PVC.

38.1 mm or 63.5 mm interior frame extension molding, made of aluminum extrusions and mechanically installed on the surface of the interior window frame.

### 1.6.3 Tiling

The tile, made of rolled aluminum, will be sealed between the two (2) sheets of glass of the sealed unit of the window.

Flat rectangular, Georgian or tubular model. Widths and finishes as available on the market.

The finish of the aluminum tiles will be Thermos hardened enamel, the same color on both sides or different colors on the exterior and interior sides.

### 1.6.4 Muntin bar

The muntin bar surface will be applied to the exterior and interior sides of the sealed unit, facing each other. The inside of the glazing is filled with a piece of aluminum that looks like a spacer.

The muntin bar, an A6063-T5 alloy aluminum profile with a wall thickness of 1.5 mm, will be assembled on the outside and inside of the glass with a double retaining tape and sealed across its width. Available widths: 44.5 mm and 22 mm.

### **1.6.5 Hardware**

An opening mechanism of the controlled stroke type (limiting the opening to 100 mm) may be installed for safe ventilation.

### **1.6.6 Insect Screen**

The wick will be made of fiberglass or aluminum.

A rolled aluminum screen frame option will be available.

## **1.7 Maintenance sheet**

You will be given a sheet with instructions for cleaning and maintaining the windows when your order is delivered.

## **1.8 Warranty**

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