



# **VINYL WINDOW AND DOOR** **SPECIFICATIONS**

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## **PART 1- GENERAL SPECIFICATIONS**

### **1.01 SUMMARY OF WINDOWS/DOORS**

- A. The following Omni window/door styles are included in these Specifications:
1. Picture windows
  2. Tilt & Turn windows
  3. Crank-out Casement windows
  4. Mulled Casement Assembly windows
  5. Manual Awning windows
  6. Crank-Out Awning windows
  7. Horizontal Sliding windows
  8. Sliding Patio Door
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### **1.02 SUBMITTALS INFORMATION UPON REQUEST**

- The following items are included in Omni's standard submittals:
1. Order form
  2. Vinyl windows/doors structural specifications
  3. Thermal ratings and STC
  4. Omni details
  5. Installation and installation materials
  6. Commercial warranty
  7. Project drawings
  8. Maintenance instruction

### **1.03 GENERAL PERFORMANCE REQUIREMENTS**

- A. Thermal Performance: Comply with NFRC 100, NFRC 200, NFRC 500.
- B. Air Leakage, Water Resistance, Structural Test: Comply with AAMA/WDMA/CSA 101/I.S.2/A440-11.
- C. Forced-Entry Resistance: Comply with ASTM E2068-00(2016), ASTM F588-14.
- D. STC Performance/comply with ASTM E 90-04.
- E. Please note, actual performance results may vary by style, type of glazing selected, and overall window dimensions.

### **1.04 QUALITY ASSURANCE**

- A. General Assurance: All systems to comply with AAMA/WDMA/CSA 101/I.S.2/A440-11, unless otherwise noted.

- B. Manufacturer Qualifications: minimum 25 years experience in producing vinyl window systems.
- C. Certifications for insulated glass systems:
  - 1. AAMA: Windows to be certified and labeled in accordance with AAMA standards
  - 2. NFRC: Windows to be certified and labeled in accordance with NFRC standards and requirements
- D. **Product Warranties**
  - 1. Transferable Commercial Warranty: Omni's Fully Transferable Commercial Warranty is offered to the original owner of a commercial structure and any subsequent owners of the structure during the warrant period. The warranty applies to Omni products installed in single family homes that are not owner occupied or buildings that are used for commercial, governmental, fraternal or religious purposes. The commercial warranty runs from the date that Omni receives payment in full for the window or door systems and expires 10 years after the start date, and is automatically applicable to the original owner and any subsequent owners of the commercial structure during the warranty period, as long as the other requirements of the warranty are met.
  - 2. Applied Color Warranty: For all Omni products that have applied painted colors or applied laminated colors or woodgrain patterns, Omni guarantees the applied interior color for 20 years, and guarantees the applied exterior color for a period of 5 years. Omni's color warranty covers abnormal fading, cracking, blistering, or abnormal weathering due to sun water or other natural forces. For further details and requirements concerning the terms, limitations, exclusions, and coverage of Omni's color warranty, please contact Omni.

## **1.05 OMNI WINDOWS & DOORS CONTACT INFORMATION**

- A. Location: Omni Windows & Doors, 3913 Oceanic  
Dr.Oceanside, CA 92056 USA
- B. Telephone and Facsimile: Telephone: (760) 967-1088  
Facsimile: (760) 967-1038

## **PART 2 - PRODUCT SPECIFICATIONS**

### **2.01 MATERIALS**

- A. Vinyl: Special formula Polyvinyl Chloride (PVC) compound, high impact-resistant containing titanium dioxide UV inhibitor, color stabilizers, heat stabilizers, impact modifiers, lubricants, and light stabilizers. Compound complies with ASTM D 4216 and ANSI/AAMA NWWDA 101/I.S.2.



B. Hardware: See individual window types for hardware details.

C. Glazing: See section 2.05 below.

## **2.02 WINDOW TYPES**

### **A. Picture Window**

1. Overall Rating CW-PG50
2. Structural performance test results:
  - a. Air Infiltration <0.01 cfm/ft<sup>2</sup>
  - b. Water Resistance Test Pressure 12.11 psf
  - c. Design Pressure  $\pm$  50.13 psf
  - d. Forced Entry Resistance ASTM F588, Type: D Grade: 10
  - e. STC-35 (with standard glass package)
3. Frame Construction and Reinforcement: Multichambered PVC profiles. All frame members are mitered, fusion welded and machine cornered for clean appearance. Frame members are reinforced with 31/32" wide x 1 9/64" high by 1/16" thick formed and primed steel reinforcement. Reinforcement held in place with a #8 x 1/2" Phillip flat head sheet metal screws. Frame thickness is standard 58mm (2 1/4") or optional 73mm (2 7/8") frame thickness. A 7/8" nail on fin set back is standard, yet alternate nail on fin set back dimensions are available.
4. Drainage: 1-1/8" by 3/16" weep slots on the exterior sill face.

### **B. In-swing Casement Window (Tilt & Turn Window)**

1. Overall Rating C-40 at 36 x 72
2. Structural performance test results:
  - a. Air Infiltration 0.21 cfm/ft<sup>2</sup>
  - b. Water Resistance Test Pressure 6.06 psf
  - c. Design Pressure  $\pm$  40.10 psf
  - d. Welded Corner Test Passed
  - e. Vertical Deflection Passed
  - f. Forced Entry Resistance ASTM F588 Grade 10
  - g. STC-38 (with standard glass package)
3. Weather stripping: One row of condensed rubber gasket along the interior frame sill leg and sash perimeter.
4. Sash and Frame Construction/ Reinforcement: All frame members are mitered, fusion welded and machine cornered for clean appearance. Each frame member is reinforced with a formed and primed u-shaped steel extrusion 1/4" wide with one leg 1/4" high and the other leg 25/32". The reinforcement is held-in-place with #8 x 1/2" Philips flat head sheet metal screws. The vertical sash members are also reinforced with formed and primed steel reinforcement. Each fixed interlock is attached to the panel with 5/8" x #6 Phillip flat head sheet metal screws. The fixed panel is sealed to the head and sill with silicone. Frame thickness is 58mm (2 1/4".)



A 7/8" nail on fin set back is standard, yet alternate nail on fin set back dimensions are available.

5. Hardware: Omni uses a multipoint cam locking system from ROTO Hardware. The number of locking points vary depending on the size of the unit, with a minimum of three locking points and a maximum of six. The single lever lock and operating handle is located midspan on the sash stile. The corresponding lock keepers are located on the jambs.
6. Drainage: 1 1/4" by 3/16" weep slots located on the interior and exterior sill. The exact location and number may vary depending on the overall size of the window.

### **C. Crank-Out Casement Window**

1. Overall Rating CW-PG40
2. Structural performance test results:
  - a. Air Infiltration 0.03 cfm/ft<sup>2</sup>
  - b. Water Resistance Test Pressure 12.11 psf
  - c. Design Pressure  $\pm$  40.10 psf
  - d. Welded Corner Test Passed
  - e. Vertical Deflection Passed
  - f. Forced Entry Resistance ASTM F588 Grade 10
  - g. STC-38 (with standard glass package)
3. Sash and Frame Construction/ Reinforcement: All frame members are mitered, fusion welded and machine cornered for clean appearance. The frame members are reinforced with formed and primed steel reinforcement (1 1/4" wide with one leg 1/4" high and the other leg 25/32", each side 1/16" thick.) The reinforcement is held in place with #8 x 1/2" Phillip flat head sheet metal screws. Frame thickness is 73mm (2 7/8"). A 7/8" nail on fin set back is standard, yet alternate nail on fin set back dimensions are available.
4. Hardware: The single lever operator incorporates a ROTO multipoint cam locking system along both sides of the opening sash, locking with two separate levers on the sash.
5. Drainage: 1 1/4" by 3/16" weep slots on the vent bottom rail exterior face. The number and location of weep slots may vary from size to size to provide optimal drainage and energy efficiency.

### **D. Muller Casement/Fixed Assembly Window**

1. Overall Rating C30
2. Structural performance test results:
  - a. Air Infiltration <0.01 cfm/ft<sup>2</sup>
  - b. Water Resistance Test Pressure 6.06 psf
  - c. Design Pressure  $\pm$  30.08 psf
  - d. Welded Corner Test Passed
  - e. Vertical Deflection Passed
  - f. Forced Entry Resistance ASTM F588 Grade 10
  - g. STC-38 (with standard glass package)

3. Sash and Frame Construction/ Reinforcement: All frame members are mitered, fusion welded and machine cornered for clean appearance. The frame members are reinforced with formed and primed steel reinforcement (1 1/4" wide with one leg 1/4" high and the other leg 25/32", each side 1/16" thick.) The reinforcement is held in place with #8 x 1/2" Phillip flat head sheet metal screws. Frame thickness is 73mm (2 7/8"). A 7/8" nail on fin set back is standard, yet alternate nail on fin set back dimensions are available.
4. Hardware: The single lever operator incorporates a ROTO multipoint cam locking system along both sides of the opening sash, locking with two separate levers on the sash.
5. Drainage: 1 1/4" by 3/16" weep slots on the vent bottom rail exterior face. The number and location of weep slots may vary from size to size to provide optimal drainage and energy efficiency.

#### **E. Manual Awning Window**

1. Overall Rating AP-C30
2. Structural performance test results:
  - a. Air Infiltration 0.03 cfm/ft<sup>2</sup>
  - b. Water Resistance Test Pressure 12.11 psf
  - c. Design Pressure  $\pm$  40.10 psf
  - d. Forced Entry Resistance CAWM 301-90
  - e. STC-38 (with standard glass package)
3. Frame Construction and Reinforcement: All frame members are mitered, fusion welded and machine cornered for clean appearance. The frame members are reinforced with 31/32" wide x 1 9/64" high by 1/16" thick formed and primed steel reinforcement. The reinforcement is held in place with #8 x 1/2" Phillip flat head sheet metal screws. Frame thickness is 58mm (2 1/4"). A 7/8" nail on fin set back is standard, yet alternate nail on fin set back dimensions are available.
4. Hardware: Stainless steel, minimum two point cam-locking systems from ROTO Hardware, compression locking into the lock keepers at the bottom rail. Stay arms on each jamb connect to each stile, and open outward to a "stayed" position. The handle is located mid span on the bottom rail.
5. Drainage: 1 1/8" by 3/16" weep slots on the sill horizontal face draining into the sill hollow, 1 1/8" by 3/16" weep slots on the exterior sill face draining the sill hollow, and 1 1/8" by 3/16" weep slots on the vent bottom rail. The number and location of weep slots may vary from size to size to provide optimal drainage and energy efficiency.



## **F. Crank-Out Awning Window**

1. Overall Rating CW-PG40
2. Structural performance test results:
  - a. Air Infiltration 0.03 cfm/ft<sup>2</sup>
  - b. Water Resistance Test Pressure 12.11 psf
  - c. Design Pressure  $\pm$  40.10 psf
  - d. Welded Corner Test Passed
  - e. Vertical Deflection Passed
  - f. Forced Entry Resistance ASTM F588 Grade 10
  - g. STC-38 (with standard glass package)
3. Sash and Frame Construction/ Reinforcement: All frame members are mitered, fusion welded and machine cornered for clean appearance. The sash and frame members are reinforced with formed and primed u-shaped steel extrusion 1 1/4" wide with one leg 1/4" high and the other leg 25/32". The reinforcement is held-in-place with #8 x 1/2" Philips flat head sheet metal screws. Frame thickness is 73mm (2 7/8"). A 7/8" nail on fin set back is standard, yet alternate nail on fin set back dimensions are available.
4. Hardware: The single lever operator incorporates a ROTO multipoint cam locking system along both sides of the opening sash, locking with two separate levers on the sash. The number of locking points and lock keepers may vary depending on unit size.
5. Drainage: 1 1/4" by 3/16" weep slots on the vent bottom rail exterior face. The number and location of weep slots may vary from size to size to provide optimal drainage and energy efficiency.

## **G. Horizontal Sliding Window**

1. Overall Rating HS-C30
2. Structural performance test results:
  - a. Operating Force 14 lbs max.
  - b. Air Infiltration <0.01 cfm/ft<sup>2</sup>
  - c. Water Resistance Test Pressure 4.59 psf
  - d. Design Pressure  $\pm$  30.08 psf
  - e. Welded Corner Test Passed
  - f. Forced Entry Resistance ASTM F 588 Grade 10
  - g. STC-36 (with standard glass package)
3. Weather stripping: Two rows of 1/4" high pile weather-stripping with a center fin located on each panel top, bottom rails and jamb stiles. One row of 3/8" high pile with a center fin located on each panel interlock.
4. Sash and Frame Construction/ Reinforcement: All frame and sash members are mitered and fusion welded for an extremely clean appearance. The frame members are reinforced with formed and primed u-shaped steel extrusion 1 1/4" wide with one leg 1/4" high and the other leg 25/32". The vertical sash members



are reinforced with formed and primed steel reinforcement. Each fixed interlock is attached to the panel with 5/8" x #6 Phillip flat head sheet metal screws. The fixed panel is sealed to the head and sill with silicone. Frame thickness is 58mm (2 1/4".) A 7/8" nail on fin set back is standard, yet alternate nail on fin set back dimensions are available.

5. Hardware: Minimum two point cam-locking system from ROTO Hardware. The single lever lock handle is located midspan of each of the locking stiles. Lock keepers are located on the jambs. There are two pivoting nylon rolling systems attached to each active panel.
6. Drainage: 1 1/8" by 3/16" weep slots on each vertical sill wall, and on the interior sill track draining into the sill hollow. The screen track and each panel bottom rail also incorporate weep slots. The location and number may vary depending on the overall size of the window.

## **2.03 DOOR TYPES**

### **A. Sliding Patio Door**

1. Overall Rating SD-C30 (with standard extruded threshold)
2. Structural performance test results:
  - a. Operating Force 8.0 lbf max.
  - b. Air Infiltration 0.19 cfm/ft<sup>2</sup>
  - c. Water Resistance Test Pressure at 6.06 psf- no leakage
  - d. Design Pressure  $\pm 30.08$  psf
  - e. Forced Entry Resistance ASTM F842 / Grade 10
  - f. STC -36 (with standard glass package)
3. Frame/Panel Construction and Reinforcement: All frame members are mitered, fusion welded and machine cornered for clean appearance. The frame members are reinforced using a steel tube extrusion 1 1/16" x 1 1/16" x 1/16" thick. Each reinforcement is held in place with #6 x 1/2" PFH screws. An aluminum threshold is employed between the fixed panel and the active jamb. The screen track is attached to the frame members via #6 x 1" PFH screws and an aluminum sleeve. The stiles of each panel are reinforced using a similar steel extrusion. The fixed panel is attached to the fixed jamb, the head and the sill using #10 x 4" long PFH screws. A vinyl interlock is attached to each meeting stile with #6 x 3/4" PFH screws. Frame thickness is standard 73mm (2 7/8".) A 7/8" nail on fin set back is standard, yet alternate nail on fin set back dimensions are available.
4. Weather stripping: One row of 3/8" high pile weather-stripping with a center fin located on each interlock; two rows of 1/4" high pile with a center fin located on each panel jamb stile, panel top and bottom rails. 3/8" high pile weather-stripping with a center fin located on each anti-panel lift at the top and bottom of each interlock.

5. Screen Construction: Screen members are extruded aluminum. The corners were mitered and employ staked-in-place aluminum corner gussets. A fiberglass mesh cloth is held in place with a hollow vinyl spline.
6. Hardware: Minimum three point cam-locking system from ROTO Hardware. The single lever lock handle is located midspan of the locking stile with the corresponding lock keepers located on the jambs. There are two pivoting nylon rolling systems attached to each active panel for smooth and quiet operation.
7. Drainage: 1" x 3/16" weep slots on the screen track with 1" x 3/16" weep slots on the vertical sill face and the interior sill track.

## **B. Swing Doors**

1. Overall Rating C40 (with standard extruded threshold)
2. Structural performance test results:
  - a. Air Infiltration 0.08 cfm/ft<sup>2</sup>
  - b. Water Resistance Test Pressure 8.35 psf
  - c. Design Pressure  $\pm 40.10$  psf
  - d. Welded Corner Test Pass
  - e. Forced Entry Resistance AAMA1304 / Pass
  - f. STC 37 (with standard glass package)
3. Frame/Panel Construction and Reinforcement: All frame and panel members are mitered, fusion welded and machine cornered for clean appearance. The frame members are reinforced using a steel tube extrusion measuring 15/16" x 1 1/2" x 1/16" thick walls. Each reinforcement is held in place with #6 x 1/2" PFH screws. The panel members are reinforced with steel U shaped extrusions measuring 1 5/8" x 1 1/2" x 1/16" thick walls, held in place with #8 x 1/2" PFH screws. Frame thickness is standard 58mm (2 1/4"). A 7/8" nail on fin set back is standard, yet alternate nail on fin set back dimensions are available.
4. Screen Construction: Screen members are extruded aluminum. The corners were mitered and employ staked-in-place aluminum corner gussets. A fiberglass mesh cloth is held in place with a hollow vinyl spline.
5. Hardware: Omni uses a multipoint cam locking system from ROTO Hardware. The number of locking points along the sash which vary in number depending on the size of the unit (typically a minimum of four locking points and a maximum of six.) The single lever lock and operating handle is located midspan on the sash stile. The corresponding lock keepers are located on the jambs, head and sill.
6. Weatherstripping: One row of single leaf vinyl gasket along the perimeter of the frame and panel.
7. Drainage: 1 1/8" x 3/16" weep slots on the exterior sill face and bottom sash rail. The location and number may vary depending on the overall size of the window to obtain optimal drainage and energy efficiency.



**C. Mulled Swing Door/Fixed (Tested Size 96" \* 108")**

1. Overall Rating C30 (with standard extruded threshold)
2. Structural performance test results:
  - a. Air Infiltration 0.01 cfm/ft<sup>2</sup>
  - b. Water Resistance Test Pressure at 6.06 psf- no leakage
  - c. Design Pressure  $\pm 30.08$  psf
3. Frame/Panel Construction and Reinforcement: All frame and panel members are mitered, fusion welded and machine cornered for clean appearance. The frame members are reinforced using a steel tube extrusion measuring 15/16" x 1 1/2" x 1/16" thick walls. Each reinforcement is held in place with #6 x 1/2" PFH screws. The panel members are reinforced with steel U shaped extrusions measuring 1 5/8" x 1 1/2" x 1/16" thick walls, held in place with #8 x 1/2" PFH screws. Frame thickness is standard 58mm (2 1/4"). A 7/8" nail on fin set back is standard, yet alternate nail on fin set back dimensions are available.
4. Screen Construction: Screen members are extruded aluminum. The corners were mitered and employ staked-in-place aluminum corner gussets. A fiberglass mesh cloth is held in place with a hollow vinyl spline.
5. Hardware: Omni uses a multipoint cam locking system from ROTO Hardware. The number of locking points along the sash which vary in number depending on the size of the unit (typically a minimum of four locking points and a maximum of six.) The single lever lock and operating handle is located midspan on the sash stile. The corresponding lock keepers are located on the jambs, head and sill.
6. Weatherstripping: One row of single leaf vinyl gasket along the perimeter of the frame and panel.
7. Drainage: 1 1/8" x 3/16" weep slots on the exterior sill face and bottom sash rail. The location and number may vary depending on the overall size of the window to obtain optimal drainage and energy efficiency.

**2.04 ACCESSORIES**

**A. Divided Lites/Grids**

1. Omni currently offers two styles of grids, interior and exterior applied. Interior grids are "sculpted" 1" or 5/8" extruded aluminum grids which are factory installed in between the two panes of glass. Exterior applied grids are 1" in width and applied manually to the exterior and interior panes.
2. Standard grid color is white. If different colors are desired to match frame or sash color, grids are color coated or laminated to match frame and sash colors as closely as possible.

**B. Optional Simulated Wood Grain or Color Laminates:**



1. **General Description:** Hornschuch's "Skai Coverttech" acrylic/PVDF composite in solid colors and woodgrain patterns providing exceptional weatherability in virtually any worldwide location, specifically engineered for windows, doors and other outdoor building products. Patented three-layer (opaque acrylic-clear pvdf) film brings superb color retention suited to the extremes of the North American climate.
  2. **Application:** Coverttech films are applied to the extruded PVC lineal with PUR adhesives for excellent long term bonding. The Polyvinylidene Fluoride (PVDF) remains almost inert when exposed to harsh thermal, chemical, and ultraviolet environments. A high fluoride content provides good chemical resistance and flame retardancy, resisting strong acids and bases as well as organic solvents, and therefore is untouched by most commercial cleaners or natural exposure to salt spray, smog, and moisture, mold and fungus. PVDF is transparent to ultraviolet light and therefore will not be degraded by sunlight.
  3. **Cleaning and Maintenance of Laminated Profiles:** Cleaning with standard household cleansing-agents, excluding abrasive products. Care must be taken when cleaning the area of cut edges of the film (e.g. welded corners), since the film is unprotected in the cross section. Side penetration of chemicals can not be excluded.
- C. **Optional Painted Profiles:** Dupont's environmentally friendly Multimix haft promoter utilizing colors within the RAL range as well as custom matched colors. Scrub-resistant, scratch-resistant, resistant against water and is resistant against normal weathering.
- D. **Screens:** Extruded aluminum with mitered corners attached with staked-in-place steel corner keys. A fiberglass mesh cloth is held in place with a hollow vinyl spline.

## 2.05 GLAZING DETAILS

- A. **Standard Glazing:** Dual pane, tempered solar ban 60, Low-E glass with an aluminum box spacer. Standard glass thicknesses in the dual glazed units are 6mm (apprx. 1/4") for the exterior pane, and 5mm (3/16") for the interior pane. For standard glazing packages with a 12mm spacer, the overall glazing unit is 7/8". In addition to the standard Low-E glass, Omni offers a variety of glass options including tempered, laminated, tinted, textured, and decorative/art glass as well. Please check with Omni if upgraded glass options required.
- B. **Glass Replacement:** The glass units are dry glazed from the interior, using a soft rubber gasket at the exterior and snap-in vinyl glazing beads with a rubber wedge gasket at the interior.

## 2.06 INSTALLATION

- A. **Nailing Fin Installation:** Compliance with AAMA 2400 for nail on fin installation. Extruded vinyl nail on fin or factory installed applied nailing fin. Standard nail on fin set back is 7/8". Other nailing fin set back sizes are available. Contact Omni or your local distributor for more information on alternative nailing fin set back requirements or for more detailed recommendations concerning applied fin installation or mulled units.
- B. **Brick Mold Installation:** Nail on fin is removed by manufacturer upon request for brick mold or block construction. Pilot holes for mounting screws are pre-drilled by the factory for all finless installation if requested. Please see manufacturer's recommended installation procedures for block frame installation.

## 2.07 STORAGE, HANDLING AND CLEANING

Store door units in an upright position in a cool, clean and dry storage area and protected from corrosive elements. The product may be delivered with plastic wrapping and plastic banding for protection.

**It is very important that the products are not stacked or stored in direct sunlight or left in high temperatures or humidity, especially if the plastic wrapping and banding has not been removed. Doing so may cause severe damage to the product. If the products are going to be stored for an extended time prior to installation, any plastic banding should be removed.**

**Extra precaution should also be taken when handling or moving the products as any metal corners and support pieces used to protect the product during shipping may shift if handled improperly once the plastic banding has been removed.**

Clean frame, sash and glass surfaces using a non-abrasive, mild soap and water solution with a soft clean cloth.