

## Glacier 3300 & Norwood 3000 vs. Kawneer *Series 990*

We invite and encourage careful examination of the data provided herein. We want to be 100% accurate. If any errors are discovered, please forward this information to the Vice President-Sales/Marketing. An immediate investigation will be made to determine its veracity.

Fleetwood Windows & Doors  
Corona, CA  
[www.FleetwoodUSA.com](http://www.FleetwoodUSA.com)

**Warranty Fact:** Kawneer Company does not provide any warranty for residential applications.

**Key Sightlines**- Most views are enjoyed with doors in a closed position, which leaves the vertical members as the key sightlines. For sliding doors, those extrusions are called interlockers.

### Glacier 3300

- The standard interlocker for the Series 3300 is a thin 2 5/16" detail regardless of the door height.
  - OPTION: The Series 3000 offers two interlocker choices: The standard and the HP (High Performance). Both verticals manifest a slender 2 1/8" detail regardless of door height.
  - OPTION: Thicker vertical sightlines are possible with "sightline extenders"
- The 3300 and 3000 come standard with a narrow fixed vertical stile.
  - OPTION: Bottom rail height can be customized to any height using aluminum panel and muntin bar.

### Kawneer 990

- Interlocker sightline 2 5".

**Hardware Quality**- Handles, locking mechanisms, strike plates, rollers and sash balances are components often overlooked when making final decisions. We believe these "little things" are critical. If your product does not operate efficiently for many years it might as well be a fixed window.

### Glacier 3300

- **Archetype Hardware:**
  - 100% stainless steel
  - USA manufactured
  - Easy ¼ turn, flush actuator
    - OPTION: Factory black painted.
    - OPTION: Field painted to match custom frame color
  - Lock/Unlock indicator
  - Patent Pending
  - Ergonomic Flush Pull
  - Flush Keyed Lock (optional)
  - Huge laminated hook(s)
    - OPTION: Double Hook Latch (3070-EX and 3050 door only)
- **Stainless steel strike plate:**
  - Attached INTO the jamb, not screwed to the jamb face
  - Robust back plate for added security
  - Stainless steel dust box to hide the wall
  - The plate has over 1" of adjustment.

- Stainless steel precision rollers
  - Authentic precision bearings manufactured in Switzerland
  - Doors operate MUCH better than cheap bearing imitators
  - Tandem 1-7/8" rollers
  - Each roller assembly is easily adjusted with a Phillips head screwdriver
- Stainless steel edge pull
  - Standard on all pocket doors
  - Capable of pulling thousands of pounds
  - Ergonomic pull design
  - Tension spring to avoid 'clanking'
- Stainless steel assembly screws
  - Allows for long-term efficiency in coastal applications.
  - Most manufacturers choose non stainless because the magnetic nature allows easier assembly.
- Stainless steel installation screws
  - Allows for long-term efficiency in coastal applications.
  - Most manufacturers choose non stainless because it is MUCH cheaper.
- Stainless steel track insert
  - Creates ideal conditions of roller and track relationship
  - Provides homeowners assurance of long-term performance
- Screen Door
  - Stainless steel latch assembly.
  - Stainless steel keeper.
  - Aluminum extruded corners that are secured with hidden staking.
  - Stainless steel adjustable rollers and assembly.

#### Kawneer 990

- The Series 990 comes standard with zinc die cast hardware and small stainless steel latch. *Projects that are near salt water should expect to replace this hardware within months, or perhaps weeks. Fleetwood has had four decades of experience with this 'industry' hardware .*
- The standard tandem rollers are 1 1/2" diameter wheels (up to 108" tall doors) and equipped with bearings and produced in China. *Fleetwood ONLY provides true precision, Swiss bearings in our roller.*
- Optional 1.81" diameter wheels. *Fleetwood ONLY provides true precision, Swiss bearings in our roller.*
- The latch strike plate is constructed of stainless steel.
  - No dust cover to hide the wall. *Rough lumber or unseemly substrates are obvious.*
  - Plate is surface mounted to a snap-in extrusion. Security test not published. *Fleetwood had this system for many decades and found it difficult to work with in the field. It does not allow easy locking adjustment.*
  - OPTION: Stainless steel latch. *There are still many corrodible metals that exist with this package.*

**Fit & Finish Aspects**- Doors are best enjoyed when looked through, not at and we believe they ought to fit into the architectural landscape rather than draw attention.

#### Glacier 3300

- Each panel part is a single extrusion so there are no glass stop seams.
- The fixed panels are secured with a hidden sill block which is exclusive to Fleetwood doors.
- Head tracks are provided with extruded aluminum snap-in closers.
- Dark bronze anodized spacers for insulated glass cut down glare.
- Easily replaceable stainless steel insert gives perfect convex/concave relationship with roller wheels

#### Kawneer Series 990

- Each panel part is a single extrusion so there are no glass stop seams.
- The fixed panels are secured with an exposed clip. *These clips are unattractive and should cause concern for security.*

- Head tracks are NOT provided with extruded aluminum snap-in closers. *This allows air/water infiltration and deep cavity is unattractive.*
- Insulated glass spacer color is not listed. *A silver color will cause undesired glare.*
- Stainless steel insert gives perfect convex/concave relationship with roller wheels.

**Energy**- For the purposes of this comparison we consider heat/cold transfer (u-value) and direct sun heat (short wave radiation) as the key factors in determining the energy benefits.

#### Glacier 3300

- Thermally broken panel & frame extrusions = excellent NFRC u-value ratings
- Thermally broken panel & frame extrusions = excellent condensation resistance (frost climates)
- Thermally broken panel & frame extrusions = excellent resistance to radiant heat (sunbelt climates)
- Wedge interlocker design for better air infiltration resistance.

#### Kawneer Series 990

- Non-Thermally broken panel & frame extrusions = No NFRC u-value ratings
- Non-Thermally broken panel & frame extrusions = No condensation resistance (frost climates)
- Non-Thermally broken panel & frame extrusions = No resistance to radiant heat (Sunbelt climates) *This should give justifiable pause to anyone considering this product for real energy benefits. There is no question that thermal break costs more to produce and therefore places the Glacier 3300 at a higher cost. If energy and comfort can be compromised we recommend the Norwood 3000 which is still a superior product than the Series 990 but less expensive than the Glacier 3300.*

**Green & Sustainable**- Without question, the Glacier 3300 and Norwood 3000 are THE greenest and most sustainable luxury sliding doors made in the United States.

#### Glacier 3300

- Thermally broken perimeter frame AND panels offer ultimate energy efficiency in an aluminum window.
- The steadiness of aluminum during temperature changes reduces energy consumption.
- 1" Insulated glass with many high performance glass options.
- Constructed with naturally abundant aluminum bauxite (8% of the earth's crust).
- Manufactured with high recycled content of post consumer aluminum (40%-50%) and glass (varying %).
- 100% of the aluminum remnants are recycled.
- Long life cycle because of the enduring nature of aluminum, leaving a small footprint.
- Lifetime finish if maintained.
- Factory baked finishes = No VOCs.

#### Kawneer Series 990

- The Series 990 does NOT have thermally broken panel parts. *This equates to more than 90% of the entire opening being less energy efficient. In the Sunbelt states, hot days = hot doors. In the Norwood "CR" the thermal break 'breaks' the transference of that heat so you do not burn your hand touching the inside of your door. FACT- it is easier and cheaper to avoid thermal break BUT it is the more responsible product!*

**Strength & Sizes**- The size capabilities determine inherent strength.

#### Glacier 3300

- The energy benefits of the Series 3300, e.g. the thermal break material, limits the panel widths to 5' and the height to 10'. In some cases, Fleetwood has manufactured this product wider or taller. Consult with the factory if you would like larger panels.
  - OPTION: The Series 3000 is capable of panels as wide as 6' wide or 12' tall. In some cases, Fleetwood has manufactured this product wider or taller. Consult with the factory.

#### Kawneer Series 990

- Largest width panel is not listed.
- Tallest panel is not listed.

**Performance Capabilities-** The reality of sliding doors is that they must defend against destructive agents such as rain and high winds.

#### Glacier 3300

- The Series 3300 can be made to resist structural winds that exceed 130 mph.
- The Series 3300 can be made to handle rain equal to the pressures of a 40-story building.
  - OPTION: The Norwood 3000 can be made to resist structural winds that exceed 250 mph and handle rain equal to the pressures of a 60-story building.

#### Kawneer Series 990

- The Series 990 can be made to resist structural winds that exceed 130 mph.
- The Series 990 can be made to handle rain equal to the pressures for a 40-story building.
  - OPTION: The 990 can be modified to handle greater performance needs.

**Installation & Maintenance-** Effective product design should include installation assistance and convenient maintenance.

#### Glacier 3300

- The perimeter frame comes standard with an integral nail-fin.
- The screen door comes standard with stainless steel, ball bearing rollers AND a stainless steel latch and strike plate.
- The Series 3300 comes with detailed Care & Maintenance Instructions to ensure a long life.

#### Kawneer Series 990

- The perimeter frame is a block frame. *Attempting to waterproof this frame is difficult which might be one of the reasons this door is NOT warranted in residential applications.*
- The screen door comes standard with steel ball bearing rollers AND steel hook latch and strike plate. *Anywhere near the coast is a bad fit for these corrodible rollers.*
- The Series 990 comes with basic Care & Maintenance Instructions to ensure a long life.
- The Series 990 is not offered with installation instructions online. *This can be a major issue if the product instructions are lost or damaged.*

**Experience & Commitment to Quality-** These are two areas which are often overlooked when deciding upon a window or door product.

#### Fleetwood

- Making aluminum sliding doors since 1962
- Market focus = high end luxury homes
- Products produced in one 207,000 square foot building in California.
- Limited Lifetime Warranty on all products.
- Standard custom paint is 70% Kynar.
- Standard bronze anodize is Class I (twice as thick as Class II)
  - OPTION: 10 year finish warranty.

#### Kawneer

- In the process of gathering this data. Kawneer Company has been around for many decades.

