

Greenwood Fence Composite Classic Privacy Specifications

Overview

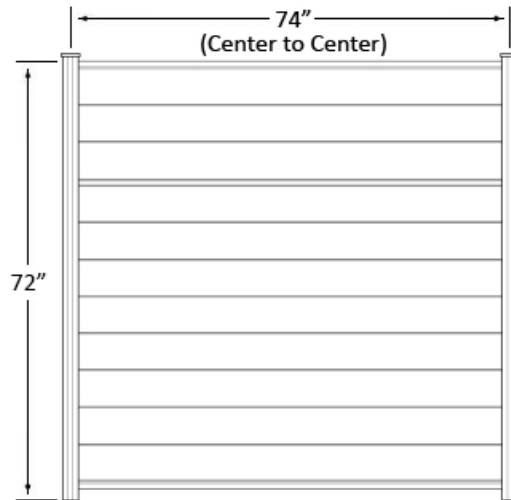
The Greenwood Fence Classic Privacy combines modern design with durable materials, offering a low-maintenance solution for residential and commercial properties. Constructed with aluminum alloy and wood-plastic composite (WPC) infills, this fence provides an elegant look with lasting durability.

Key Benefits:

- **Durability:** Built to withstand the elements with minimal maintenance.
- **Aesthetic Appeal:** Modern design with a choice of finishes to complement any setting.
- **Eco-Friendly:** Made with recycled materials, contributing to a sustainable environment.

Note: *All information provided in this document is subject to the terms and conditions outlined in the legal disclaimer on the final page.*

Fence Specifications



- **Height:** 72 inches (nominal)
- **Width:** 74 inches (actual)
- **Weight:** 125 Lbs.

Ideal Applications: Residential privacy fencing, commercial property boundaries, public parks.

Material Details

Posts:

- **Material:** Aluminum Alloy 6063 T5
- **Dimensions:** 2.75 x 2.75 inches, 118 inches (L)
- **Wall Thickness:** 1.7 mm (0.067 inches)
- **Weight:** 15.75lbs
- **Finish:** Matte black powder-coated (RAL 9011)

Rails:

- **Material:** Aluminum Alloy 6063 T5
- **Dimensions:**
 - **Top Rail:** 1.18 x 0.79 inches, 72 inches (L)
 - **Middle & Bottom Rails:** Overall size (including tongue) 1.50 x 0.79 inches, 72 inches (L), Rail size (not including tongue) 1.18 x 0.79 inches, 72 inches (L),
- **Wall Thickness:** 0.0625 inch
- **Weight:** 2 Lbs. each
- **Finish:** Matte black powder-coated (RAL 9011)

Aluminum Alloy Material Selection:

Aluminum Alloy 6063 T5 was chosen for the Greenwood Fence system due to its excellent combination of strength, workability, and corrosion resistance. The alloy's chemical composition and treatment process provide superior mechanical properties, making it suitable for applications requiring both durability and lightweight construction. This choice ensures that the fencing system maintains structural integrity even in demanding environmental conditions, such as those regions or areas prone to extreme weather.

Key Technical Advantages:

- **Enhanced Strength:** The 6063 T5 alloy is known for its high tensile and yield strength compared to other common aluminum alloys, making it ideal for structural applications in fencing systems.
- **Corrosion Resistance:** The magnesium and silicon in the 6063 alloy enhance its corrosion resistance, making it an excellent choice for outdoor use where long-term exposure to the elements is expected.
- **Surface Finish and Workability:** This alloy offers exceptional finish quality and workability, allowing for intricate designs and reliable installation without compromising structural integrity.

Wood Plastic Composite (WPC) Fence Panel Co-Extruded Board Infills:

- **Primary Material:** Wood Plastic Composite (WPC) is the core material of the fence panel, offering an advanced blend of high-density polyethylene (HDPE) and reclaimed wood fibers. This sustainable composition provides the ideal balance of strength, flexibility, and environmental responsibility.
- **Dimensions:** Overall size (including tongue): 6.54 x 0.79 inches, 72 inches long. Panel size (not including tongue): 6.22 x 0.79 inches, 72 inches long.
- **Weight:** 9.25 lbs per board.
- **Finish:** “Saw Cut” co-extruded embossed polymer wood grain, offering the texture and visual appeal of natural wood.
- **Why WPC?** Chosen for its exceptional durability, WPC is highly resistant to rot, insect damage, and weathering, making it an ideal choice for long-lasting fencing solutions. The material requires minimal maintenance compared to natural wood while retaining the aesthetic appeal of timber. Its eco-friendly blend of recycled plastics and reclaimed wood fibers also makes it the perfect option for environmentally conscious projects.

Wood Plastic Composite (WPC) Co-Extruded Board Composition:

Material	Percent (%)	Item Type
PE	27.00%	PE polymer particles
Compatibilizer	3.00%	SM-3 has no precipitation
Wood Fiber	58.00%	Wood fiber 60 mesh
Talcum Powder	10.00%	Talcum powder 1000 mesh
Lubricant	1.80%	Compound type-610
Color Master Batch	0.20%	N326

Environmental Compliance

- **California Proposition 65 Compliance:**
 - **Lead (Pb):** ND (Not Detected), below the 100 mg/kg limit (Pass) – **Test Method:** ASTM D3335
 - **Cadmium (Cd):** ND (Not Detected), below the 300 mg/kg limit (Pass) – **Test Method:** ASTM D3335
- **VOC Emissions:**
 - **Total VOCs (TVOC):** 37.7 µg/m³ – **Test Method:** ASTM D5116
 - **Formaldehyde:** ND (Not Detected) – **Test Method:** ASTM D5197
 - **Acetaldehyde:** ND (Not Detected) – **Test Method:** ASTM D5197
- **Testing Method:** Testing performed by SGS-CSTC Standards Technical Services Co., Ltd. using Environmental Chamber (1m³) with analysis by Thermodesorption System with Gas Chromatography Mass Spectrometry (TDS-GC/MS) and High-Performance Liquid Chromatography-DAD (HPLC-DAD).

Fire Rating Information

Tested by: SGS (Société Générale de Surveillance)

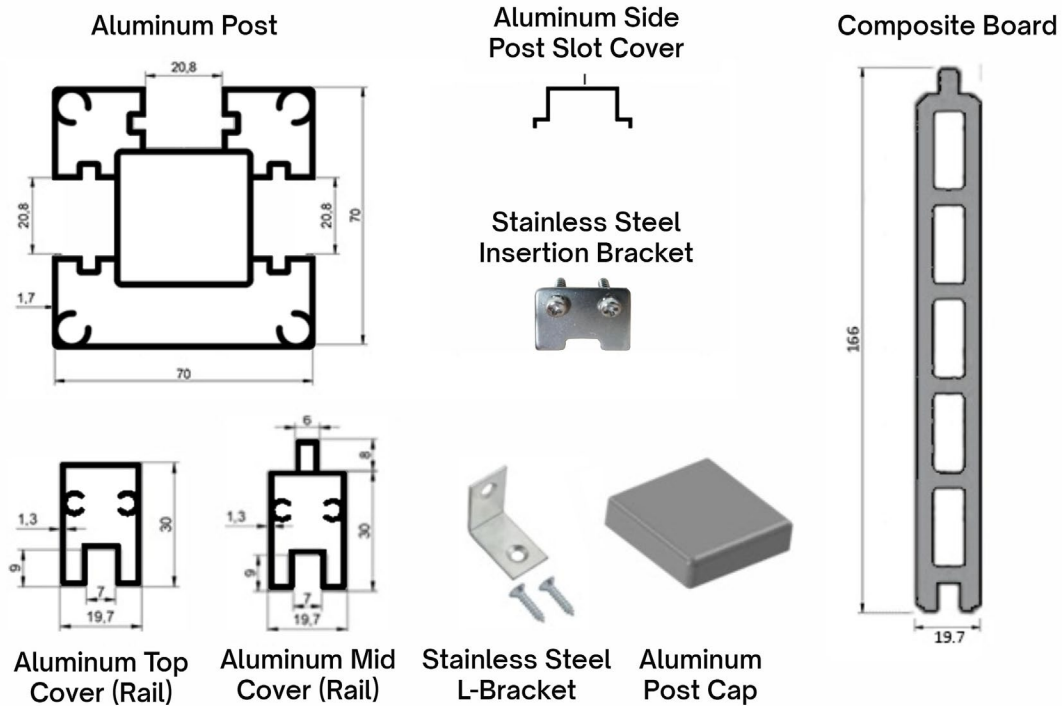
Test Method: ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials

Results:

- **Flame Spread Index (FSI):** 70
- **Smoke Developed Index (SDI):** 400
- **Rating:** Meets the requirements for **Class B** Interior Wall & Ceiling Finish

Composite boards used in Greenwood Fence Classic Privacy are rated as Class B, making them suitable for a wide range of interior and exterior applications where fire safety is a consideration.

Fence Components Diagrams



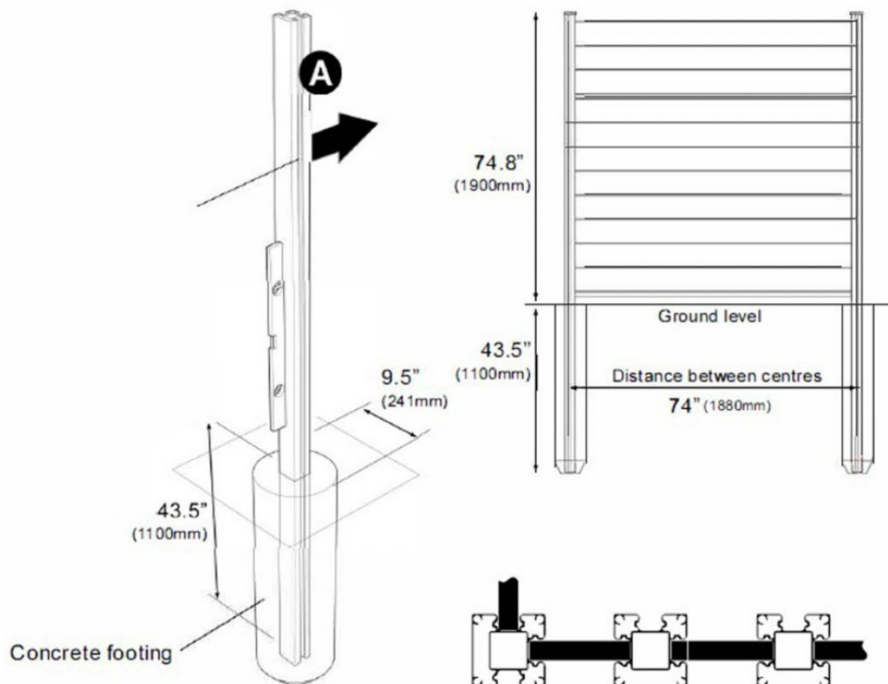
- **Aluminum Post:** Support structure, anchoring the fence and bearing the brunt of external forces.
- **Aluminum Side Cover:** Filler piece specifically designed to cover any unused slot openings in the fence posts.
- **Aluminum Top Cover:** Secondary support structure, providing additional stability by connecting the posts and supporting the fence panels.
- **Aluminum Bottom Cover:** Secondary support structure, providing additional stability by connecting the posts and supporting the fence panels.
- **Insertion Bracket:** Support bracket designed to attach to ends of fence rails and slide into interior channels of post slots.
- **L-Bracket:** Right-angle support bracket designed to securely connect fence rails to posts.
- **Aluminum Post Cap:** Finished cap for post top.
- **Composite (WPC) Slats:** Infill board featuring a tongue-and-groove design for easy stackable installation.

Installation Instructions

- **Post Depth:** 42 inches, with a 9-inch diameter hole, secured in concrete.
- **Post Spacing:** 74 inches center-to-center

Installation Steps:

1. **Mark Post Locations:** Measure and mark post locations at 74-inch intervals.
2. **Dig Holes:** Dig 42-inch-deep holes with a 9-inch diameter.
3. **Set Posts:** Insert posts into holes and secure with concrete. Ensure posts are level and aligned.
4. **Attach Rails and Boards:** Secure rails to posts and attach composite boards.



Tip: Ensure concrete is fully cured before attaching rails and boards to achieve maximum stability.

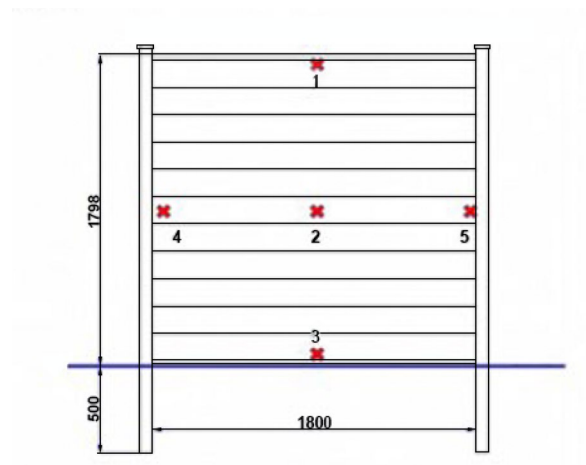
Fence Wind Load Testing

- **Standards:** EN 1794-1, EN 1794-2, ASTM E1592, ASTM E330
- **Maximum Wind Load:** 110 mph with no damage observed

This testing ensures that the fence can withstand extreme weather conditions, making it a reliable choice for high-wind areas.

Wind Speed	Duration	Max Deflection (Inches)				
		1	2	3	4	5
50 mph	72 sec	0.69	0.64	0.24	0.17	0.16
56 mph	65 sec	0.9	0.83	0.3	0.22	0.22
0 mph	Permanent Set	0.07	0.1	0.1	0.09	0.04
69 mph	52 sec	1.32	1.13	1.13	0.74	0.53
80 mph	45 sec	1.99	1.77	0.78	0.54	0.53
90 mph	40 sec	2.04	2.04	0.99	0.67	0.62
0 mph	Permanent Set	0.21	0.32	0.32	0.08	0.07
110 mph	33 sec	No damage was observed during test				
RESULT: SPECIMEN SUSTAINED MAXIMUM WIND LOAD OF 110 MPH AND NO DAMAGE DURING TEST						

THE POSITION OF TRANSDUCERS



Maintenance Guidelines

- **Frequency:** Bi-annual cleaning recommended
- **Method:**
 - **Composite Boards:** Use gentle dish soap, hot water, and a soft, non-abrasive bristle brush or cloth.
 - **Aluminum Posts and Rails:** Clean with a sponge using the same solution.
 - **Pre-Cleaning:** Hose down any surface debris before cleaning.

Warranty Information

- **Warranty Period:** 10-year commercial and 20-year residential limited warranty
- **Coverage:** Defects in materials
- **Exclusions:** Normal wear and tear, improper installation, or damage caused by external factors

Contact Information

Greenwood Fence

- **Address:** 1770 Cortland Court, Addison, IL 60101
- **Phone Number:** (888) 243-2363
- **Email Address:** info@greenwoodfence.com
- **Website:** www.greenwoodfence.com

For More Comprehensive Technical Details: If you require more detailed technical information, such as advanced testing data, specific load-bearing capacities, or architectural integration details, please contact our technical support team. We can provide additional resources.

Contact us today to discuss your project's specific needs, request samples, or receive a custom quote! We are here to help you find the perfect fencing solution.

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