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COMPARATIVE ASSESSMENT

PrimeAlux - Extruded - Vinyl - Composite

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2- Weight & Installation complexity

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Material Comparison

PrimeAlux: Strong, yet light-weight insert pickets offer better features than most products available in the market. The pickets are made of high quality coated aluminum coils with polyurethane foam core. Together they provide great flatness and strength while maintaining light-weight and durability, affordability, stain, mildew, & insect free, quality coating, and having minimal maintenance.

The structural elements are made from high quality extruded profiles to ensure they withstand severe storms and high wind loads.

Extruded Aluminum: Made from extruded aluminum. Strong, durable, and require low maintenance but heavy in weight.

Vinyl/PVC Fences: Resistant to rot and insects. However, they can become brittle over time, especially in extreme temperatures, potentially compromising their strength.

Composite: Made from a blend of wood fibers and plastic, offering good strength and durability. However, WPC can be slightly more prone to warping, depending on climate and exposure. Additionally, looks artificial/unnatural.

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Weight & Installation complexity

PrimeAlux:
Weight: Lightweight yet durable structure, making these panels easier to transport and handle on-site.
Installation Complexity: PrimeAlux's foam core aluminum fences use a slide-in system, designed for quick, straightforward installation. The panels simply slide into posts grooves, minimizing the need for complicated hardware and reducing installation time and labor costs. This makes it feasible to complete installations faster than with other systems. Though care is needed to prevent damage during installation.

Extruded Aluminum:
Weight: Extruded aluminum is denser and heavier than foam core options, as it's made of solid aluminum sections, which may be a challenge when transporting, handling, and installing.
Installation Complexity: While extruded aluminum is durable and resilient, its weight means it may require additional support during installation. Installers may need more time and effort to align and secure these heavier panels.

Vinyl:
Weight: Vinyl fences are relatively light, making them manageable during installation.
Installation Complexity: Many vinyl systems use interlocking components and pre-routed posts, simplifying assembly.

Composite:
Weight: WPC fencing is heavy, as it contains a mix of wood fibers and plastic. This density adds durability but also makes handling more demanding.
Installation Complexity: The heavier weight of WPC means it typically requires sturdy support structures and careful alignment. Installation may take longer compared to lighter materials.

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Colors, coatings, & warranty

PrimeAlux: A variety of finishes and patterns, including wood looks, allowing for customization to match different aesthetic preferences. The products are coated to prevent corrosion, delamination, paint peeling, cracking, or chipping. Where the structural components are powder coated, and the pickets are 3 layer coated to ensure high-weather durability, high-quality surface finish, uniform structure and coating thickness.
Provides up to 20-year warranty on powder-coated finishes.

Extruded Aluminum: Usually is powder coated, solid colors or sometimes wood grains at additional cost.

Vinyl: Often vinyl infill materials in colors. Wood grain vinyl options are also available in various colors. However, looks artificial and dark colors tend to fade with time.

Composite: Composite fence inserts in colors like cedar, charcoal, brown, and grey. Allowing for a range of aesthetic choices. Their Structural components are usually powder-coated extruded aluminum.
Material is not stain or fade proof, especially but not only when stains result from spilled or otherwise substances that are not properly cleaned or when the materials are exposed to years of UV exposure and the elements.

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Price comparisons

PrimeAlux: Positioned as an affordable product and priced in the mid end of the market.

Example 1: (6' w x 6' h) panel including 1 (9')post is about $284 USD. All colors and wood grain design are priced the same.

Example 2: (4' w x 6' h) Gate is about $237 USD.

Extruded: Positioned as a premium product and priced in the higher end of the market.

Example 1: (6' w x 5.75' h) panel including 1 (9')post is about $866.55 USD

Example 2: (3.3' w x 6' h) Gate is about $1,294.45 USD.

Vinyl: Positioned as an affordable product and priced in the mid end of the market.

Example: (6' w x 6' h) panel [White color] including 1 (8.5') post is about $208 USD. Other colors, such as black, can reach up to $365 USD

Example 2: (4' w x 6' h) Gate [White color] is about $360 USD.

Composite: Positioned as a mid-end product and priced in the mid-end of the market.
Example: (6.5' w x 6' h) panel including 1 (10') post is about $321 USD.

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Environmental impact

PrimeAlux: Products are made from aluminum with 40% recycled content. The manufacturing operation is highly sustainable, with 50% of the energy used in our manufacturing process generated from solar energy. Our products are eco-friendly & recyclable. Aluminum at the end, is a recyclable material.

Extruded Aluminum: Auminum, which is recyclable. However, doing the wood effect by heat sublimation generates plastic film that is not easily recyclable.

Vinyl: Vinyl/PVC has notable environmental drawbacks that make it a challenging material from an ecological perspective. Its non-biodegradable nature means it remains in landfills indefinitely, contributing significantly to long-term waste accumulation. The production process involves the release of harmful chemicals, including dioxins, which are toxic and can contaminate the air, water, and soil, impacting both environmental and human health.

Composite: WPC (wood-plastic composite) is generally not biodegradable. Although it contains wood fibers, which are organic, the plastic components—typically PVC, polyethylene, or polypropylene—are not biodegradable. This plastic content prevents WPC from breaking down naturally like pure wood would. While it’s not biodegradable, WPC can sometimes be recycled at specialized facilities, especially if the product is designed with this end use in mind.