

WHITE PAPER

The Designed Exterior by PlyGem: Smart. Sustainable. Beautiful.



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The Designed Exterior by Ply Gem home

This white paper, sponsored by Ply Gem, discusses the benefits and strategies of creating what is called *The Designed Exterior by Ply Gem*. The concept offers many benefits such as:

- Providing a custom, stylized look by incorporating stone veneer, vinyl siding, windows and other accents
- Potential efficiencies resulting from using products that are intended to complement each other
- The green/sustainable advantages that *The Designed Exterior by Ply Gem* offers

Remodeling a home — or building one from scratch — can involve a seemingly endless array of design options and therefore, choices.

Homeowners have a lot to think about when designing the outside of their house — from choosing a color palette and deciding a style, to picking window types and settling on coordinated, accenting design elements that will bring the finished look together. That said, the amount of options can feel overwhelming.

Creating curb appeal isn't easy. However, working with a company that provides all the necessary exterior elements — ranging from vinyl siding to trim — can help you create a beautiful, customized home exterior that is also energy efficient and easy to maintain.

The Designed Exterior by Ply Gem provides homeowners with a custom look using products that are intended to work together. Door trim coordinates with fascia, vinyl siding blends with stone veneer — all external elements of a home coming together to provide a comprehensive, finished look.

Affordable, attractive exteriors

Stone veneer

Because stone veneer is lighter than natural stone, it offers a number of cost, time and environmental advantages.

Certain exterior stone products, such as Ply Gem Stone profiles, which are created using casts made from molds of real stone weigh less than natural stone — therefore, installation typically takes far less time than adding actual stone.



Stone veneer exterior

Stone veneer's lightweight nature also helps to reduce the transportation costs — a bonus for the homeowner, who won't be charged for additional gas and vehicle use costs, and for the environment, which also benefits from reduced gas usage.

According to the Environmental Protection Agency, the fuel burned when driving can significantly increase the amount of carbon dioxide in the atmosphere. The Intergovernmental Panel on Climate Change cites an increase in

carbon dioxide as a major contributor to changing the balance of our climate.

Vinyl siding

Another smart exterior option, vinyl siding, offers homeowners two additional advantages: relatively easy installation and minimal upkeep. Unlike the previous generations' aluminum siding, vinyl is virtually unresponsive to rain, salt and most insects; it is unlikely to blister, peel, scratch or rust and its color is also less likely to fade over time.

Therefore, vinyl siding is an excellent low-maintenance exterior cladding option — allowing homeowners to spend their more time doing things they love, instead of working on time-consuming exterior home repairs.

Insulated vinyl siding also offers bonus energy efficiency results. Insulation's ability to resist heat from passing through it is referred to as its R-value. According to Energy Star, an energy-efficiency program from the EPA and U.S.

Department of Energy, the higher the R-value, the more effective the insulation is at retaining heat. Some types of insulated vinyl siding add significant R-value to a home's envelope. For instance, installing items from the Mastic Home Exteriors by Ply Gem siding product line can increase a home's overall R-value by up to 23 percent.

As a result, vinyl siding has become an increasingly popular choice for homeowners. In fact, vinyl siding is the exterior cladding choice used most often on homes at price points of up to \$499,000 in the U.S. and Canada, according to the Vinyl Siding Institute and 2010 U.S. Census Bureau data.

Because natural resources are often used to create vinyl materials, siding also offers an environmental advantage for green-minded homeowners, builders and remodelers — such as Variform by Ply Gem vinyl siding, which is manufactured from natural gas and salt.



Vinyl siding for your home

Similarly, polymer shingles and shakes offer the ability to accent gable areas or coat an entire home in stylish, amazingly cedar-like shakes and shingles that offer durability — some can withstand wind speeds of up to 240 mph — and easy maintenance.

Windows

Heat lost through windows can comprise 10-25 percent of a home's heating bill, according to the U.S. Department of Energy — which is why it's important to consider windows equipped with Low-E, or low emissivity, glass when remodeling or building a new home.

Low-E glass windows have a thin, metallic coating that allows the sun's heat and light to pass through while reflecting radiant heat waves to keep your home cooler in summer and warmer in winter. The resulting effect? Increased comfort and potentially lower utility costs.

Valuables are also better protected from sun damage and condensation is reduced compared to using windows with conventional clear glass. Low-E glass windows are also considered green-friendly; many, such as the Ply Gem's Low-E-equipped windows, are Energy Star certified.

Depending on which style you choose, your Low-E windows can also offer bonus conveniences such as safety. Some double-hung windows, for example, provide tilt-in sashes to make cleaning easier, while others feature ultra-tight locks for extra security. If you're remodeling or considering updating or replacing old windows, Ply Gem Windows' Mira Premium Series offers custom sizing. This is especially advantageous because using a precise-fit

installation that is integral to the exterior wall improves structural performance over more typical “pocket” replacement windows.



Windows and door decor

Other accents

Reliably, *The Designed Exterior by Ply Gem* doesn't end with windows and siding. To achieve a coordinated and eye-catching look, exterior accent items, ranging from shutters to beneficial gutter products, can help keep your home protected and looking great.

Door surrounds and vents

Easy upkeep is often a key selling point with home accents. While you may be focused on finding door trim you like the

look of, styles made with materials like polystyrene also offer the benefit of long-term durability.

Similarly, gable vents, which are designed to provide airflow to attic areas, can be virtually maintenance-free if they're made with durable polymers and vinyl.

Fascia and soffits

Fascia — the boards often located under a home's roof eaves — serves a very important function by helping gutters keep rain flowing away from your home. Fascia can also help prevent wind and snow damage.

The good news is that you don't have to sacrifice beauty and style for function. Ply Gem offers fascia options available in a variety of colors and styles to echo your home's design.

Soffits, often located near a home's eaves, also offer protection from the elements. Consider adding soffit that was designed to be fade and corrosion resistant so that your home exterior looks as new as possible over time. Aluminum soffit, for example, rarely requires painting — and, thanks to the metal it's made with, is recyclable and sustainable.

Gutter and rain removal products

Products like Leaf Relief by Ply Gem — which securely mounts to a home's gutter

system to help prevent wind, snow and ice damage, and gutter systems — is made from heavy-duty, durable aluminum help keep debris out of gutter areas so that water can flow freely. A strong rain removal system can also help prevent erosion to your home's entryways and landscaping.

Designed Exterior by Ply Gem applications

Creating a custom-looking home with fabulous curb appeal is a terrific way to make your house be a reflection of your own personality and lifestyle. Yet, a beautiful home is just one advantage of *The Designed Exterior by Ply Gem*. You'll appreciate the benefits associated with energy-efficient materials. And, you'll have peace of mind knowing that your home exterior will require relatively little upkeep, yet was produced using materials sustainably-produced materials.



The *Designed Exterior* online visualizer

To learn more about taking *The Designed Exterior by Ply Gem* concept in your next

home construction or remodeling project, or to design a virtual home with your choice of exterior items using Ply Gem's exterior design tool visit the Design Center at www.plygem.com.

About the sponsor:

Headquartered in Cary, N.C., Ply Gem is a leading North American manufacturer of residential exterior building products. Ply Gem produces a comprehensive product line of vinyl siding; designer accents and skirting; vinyl fencing and vinyl and composite railing; stone veneer; vinyl windows and doors; vinyl and aluminum soffit and siding accessories; aluminum trim coil; wood and aluminum windows; and steel and fiberglass doors. Ply Gem siding brands include Mastic Home Exteriors[®], Variform[®], NAPCO[®], Ply Gem[®] Stone, Kroy[®], Cellwood[®], Georgia Pacific, Durabuilt[®], Richwood[®], Leaf Relief[®], Gutter Warrior[™] and Monticello[®] Columns. Ply Gem window and patio door brands include Ply Gem[®] Windows, Mastic[®] Replacement Windows, Ply Gem[®] Canada and Great Lakes[®] Window. Visit www.plygem.com for more information.