

BUILDING TO MAKE A DIFFERENCE.

HOW PLY GEM STONE CAN HELP YOU
MEET YOUR SUSTAINABLE GOALS



BUILDING TO MAKE A DIFFERENCE.

Ply Gem Stone has always been building towards the future.

Builders, architects, and consumers have come to rely on our brand to provide beautiful, durable low-maintenance stone veneer for their interior and exterior projects.

Today, people also select Ply Gem Stone to help them meet their sustainable building goals. Our stone veneer offers features that positively contribute to sustainable building practices, and improved lifecycle benefits of homes. And as a part of Ply Gem, a leader in the building products industry, Ply Gem Stone offers support, service and national distribution — everything needed to make your next project your best project.

Whether you're looking to lessen your carbon footprint, gain points towards green certification, or simply choose durable products that have a lighter impact on the environment, Ply Gem Stone can support your needs.

OUR STONE VENEER:

Ply Gem Stone stone veneer is an easy way to add the beauty and interest of natural stone to a project without the added weight, expense and environmental impact of natural stone or brick. From the way it is manufactured to its durability and longer lifecycle, stone veneer is a smart, sustainable cladding option. It requires less energy to transport because it's lighter, it doesn't require on-site finish after installation with paint or stain, and it is simple to install.

- *Is manufactured efficiently.* Ply Gem Stone's strong quality control process results in more usable stones — and less production and jobsite waste. Ply Gem Stone has a waste factor of 2%; compared to 10% average with natural stone. And because we use larger molds than most other brands, we are able to produce more stones per man hour on the production line.

- *Generates less on-site waste in remodeling projects.* Ply Gem Stone can be installed over existing cladding materials, resulting in less site waste on remodeling jobs. Old cladding isn't removed, so it doesn't end up in landfills.
- *Has a lower transportation impact than other options.* Ply Gem Stone stone veneer is lighter weight than brick and stone, so it requires less energy to transport than traditional brick and stone. And because of its thinner profile and lighter weight, more square footage can be shipped per truckload — reducing transportation impact by as much as 75%.
- *Requires no additional site finish.* After installation, Ply Gem Stone requires no additional site finish, reducing time on the job site and eliminating the need for paint or stain.
- *Is durable.* When properly installed, Ply Gem Stone resists damage by moisture, temperature extremes and insects. Its great looks last for years and years with little or no maintenance.
- *Reduces the use of VOCs.* The color of Ply Gem Stone is incorporated into the product at manufacture. Under typical use, Ply Gem Stone never needs painting or staining, reducing the volatile organic compounds released into the environment over the life of the home or building.

SUSTAINABILITY TAKES GOOD PRACTICE — OUR PRODUCTS ARE JUST THE START

- Ply Gem Stone is a part of the Ply Gem Enviro Initiative, which articulates our corporate commitment to developing systems that reduce our overall corporate environmental impact.
- Ply Gem supports a system-wide policy to reuse and recycle pallets and packaging material, which reduces our raw material needs and landfill use.
- An on-site ultra filtration system was installed in one Ply Gem facility that prevents as much as 80,000 gallons of waste from entering landfills each year.

PRODUCTS AVAILABLE FROM PLY GEM THAT CAN HELP MEET YOUR SUSTAINABLE GOALS



- One Ply Gem facility reduced its use of city water sources by constructing a 3,000,000 gallon retention pond to capture storm water runoff for use in manufacturing.
- Ply Gem conserves energy by doing simple things, like turning out lights in our offices and facilities on weekends and during shutdowns.
- Ply Gem and its brands work with suppliers to recycle as many materials as possible, including cores, cardboard padding, paint totes, batteries, light bulbs, toner, and paper.

GETTING TO KNOW GREEN

Ply Gem Stone isn't in this alone. Sustainability is complicated, and is best achieved within the context of quality building practices.

The Environmental Protection Agency (EPA), the U.S. Green Building Council (USGBC), and the NAHB have developed sustainable "green"

building guidelines and standards that have helped define sustainable building practices and guide the industry down the "green" path.

WHAT IS THE EPA ENERGY STAR PROGRAM?

ENERGY STAR® is a joint program of the EPA and the US Department of Energy. It helps people save money and protect the environment by identifying and encouraging the use of energy efficient products and practices.



Products that display the ENERGY STAR logo have met energy efficiency guidelines set by the program, and can help builders and homeowners identify products that reduce energy needs.

WHAT IS USGBC LEED®?

LEED® is a third-party certification program created by the USGBC. LEED has developed specific standards for different project types — LEED® for Homes and LEED® for New Construction.



Each standard measures green building performance based on eight categories: site selection, water efficiency, materials and resources, energy and atmosphere, indoor environmental quality, location and linkages, awareness and education, and innovation.

LEED Certification provides builders, architects, and consumers with a framework for identifying and implementing practices that are sustainable.

OUR ROLE IN LEED

Ply Gem Stone products support practices that can help builders earn points in several LEED categories.

Air Filtration

The Energy and Atmosphere credit rewards builders that reduce air leakage in their building envelopes. Ply Gem Stone can help seal small cracks and gaps in a home's exterior, thus reducing air leakage.

Environmentally Preferable Products

Ply Gem Stone requires few resources to maintain, releases few to no toxic chemicals, and has a long lifecycle. It's because of these attributes that stone veneer is considered an environmentally preferable product and may be eligible to receive LEED points in this category.

Energy Efficiency

Ply Gem Stone can add to the thermal mass of a building for passive solar gain, improving its energy performance rating.

WHAT ARE THE NAHB GREEN BUILDING STANDARDS?

In 2007, the NAHB and the International Code Council (ICC) worked together to establish a much-needed and nationally-recognized standard definition of what is meant by "Green Building."

A consensus committee was formed to develop the standard in compliance with the requirements of the American National Standards Institute (ANSI). The resulting ANSI approved ICC-700-2008 National Green Building Standard defines green building for single and multifamily homes, residential remodeling projects, and site development projects while still allowing for the flexibility required for regionally-appropriate best green practices.

Similar to the NAHB Model Green Homebuilding Guidelines, a builder, remodeler, or developer must incorporate a minimum number of features in the following areas: energy, water, resource efficiency, lot and site development, indoor environmental quality, and homeowner education.

OUR ROLE IN NAHB

Ply Gem Stone can help builders, architects, and homeowners meet NAHB Green Building Standards and earn NAHB Green Building points in three key areas:

No Site Finish

On-site finishing requires additional resources and can lead to an increase in pollutants. Ply Gem Stone products do not require on-site finishing after installation.

Termite Resistant Materials

Sustainability and durability go hand in hand. Ply Gem Stone is manufactured to last, and are termite-resistant. This helps contribute to an increased lifecycle and lower maintenance.

Lifecycle Analysis

The NAHB rewards builders that select durable products. Ply Gem Stone is designed to withstand the weather season after season, and won't rot or degrade.

Can Products be Green Approved?

The NAHB Research Center has created NAHB Research Center National Green Building Certification. According to the NAHB, "A product bearing the NAHB Research Center Green Approved mark is not certified as being 'green.' Rather, the product has been approved as eligible for earning points under the National Green Building Standard toward green certification of a building if the product is used in a qualifying way (for example, in sufficient quantity or under certain conditions as noted in the Certificate). Many criteria in the National Green Building Standard™ require the use of products with certain

attributes. The Research Center has verified that products bearing the NAHB Research Center Green Approved mark do indeed have such attributes."¹

Under this program, Ply Gem has secured Certificates for many of the products they manufacture, including Ply Gem Stone stone veneer. The certificates are available for review at www.plygemstone.com.



Only products that have earned Certificates from the NAHB Research Center can display the NAHB "Green Approved" logo. This means you can be assured that product complies with specific green practice criteria in the National Green Building Standard. See the product listing on www.GreenApprovedProducts.com for more information.



SUSTAINABLE FROM START TO FINISH.

Ply Gem Stone can help you meet your sustainable building goals.

Our stone veneer is durable, beautiful and low maintenance.

And these are qualities we share with every Ply Gem brand. In addition to quality stone veneer from Ply Gem Stone, Ply Gem also offers energy-efficient, low-maintenance windows; fashionable and durable vinyl siding and soffit, aluminum products, and designer accents; low-maintenance vinyl fence and vinyl and composite rail; and beautiful, durable exterior finishings like shutters and door surrounds.

Every building project impacts the environment. By choosing Ply Gem Stone, you choose a product that can help you lessen the impact — and ensure that what you're building today also helps build tomorrow.










Ply Gem Stone includes features and third-party certifications that can help you make wise product choices. Endorsements by NAHB can help you choose products that support your sustainable goals. And you can use Ply Gem Stone products to support practices that earn points towards LEED, NAHB, and other certifications.

¹Green Approved Products. October 20, 2009. <http://www.nahbgreen.org/WholsGreen/home_greenapprovedproducts.aspx>



NAHB	PLY GEM STONE	Available from other Ply Gem brands			
POINTS AVAILABLE	Stone Veneer	Premium Vinyl Siding	Insulated Vinyl Siding	Polymer Shake and Shingle	Vinyl Soffit
	Ply Gem Stone	Mastic® Home Exteriors NAPCO® Cellwood® Georgia Pacific Durabuilt	Mastic® Home Exteriors NAPCO® Georgia Pacific	Mastic® Home Exteriors NAPCO® Cellwood® Georgia Pacific Durabuilt	Mastic® Home Exteriors NAPCO® Cellwood® Georgia Pacific

NAHB STANDARDS

601.7 Building materials or assemblies that do not require additional site applied material for finishing	2 - 5	ALL 	ALL 	ALL 	ALL 	ALL 
602.4 Drip edge is installed at eaves and gable roof edges	3					
602.5 Gutter and downspout system is installed to carry water at least 5 feet away from perimeter foundation walls	4					
602.8 Termite - resistant	2 - 6	ALL 	ALL 	ALL 	ALL 	ALL
602.12 Flashing details are shown on plans and flashing is installed	4					
604.1 Building materials with recycled content are used	1 - 6					
607.1 Products used contain fewer materials to meet the same end-use requirements as conventional products	3 for each material	ALL				
608.1 Indigenous materials are used for major elements of the building	2 - 10	ALL	ALL	ALL	ALL	ALL
609.1 Select the more environmentally preferable product or assembly	3-15		ALL			ALL
701.4.6 Fenestration, The NFRC certified U-factor and SGHC for windows, exterior doors, skylights, and tubular daylighting devices (TDDs) are in accordance with ENERGY STAR, or equivalent	Mandatory					
702.2 Energy efficiency features are implemented to achieve energy cost performance that exceeds IECC	30-120			ALL		
703.1.1 Total building thermal envelope UA is less than required by Section 402.1.4 of the IECC	10 - 36 plus 15-45			ALL		
703.1.2 Third-party graded insulation	15			ALL		
703.3 The NFRC certified U-factor and SHGC for windows, exterior doors, skylights, and tubular daylighting devices are in accordance with Table 703.2.2(a) or (b)	5-14, depending on zone					

Available from other Ply Gem brands							NAHB
Designer Accents	Aluminum Soffit	Aluminum Rain Carrying	Aluminum Accessories	Leaf Protection	Fence and Rail	Windows	POINTS AVAILABLE
Mastic® Home Exteriors Richwood Exterior Finishings	Mastic® Home Exteriors NAPCO® Cellwood® Georgia Pacific Durabuilt	Mastic® Home Exteriors NAPCO®	Mastic® Home Exteriors NAPCO® Cellwood® Georgia Pacific Durabuilt	Leaf Relief® By Ply Gem	Kroy® by Ply Gem Fence and Rail Solutions	Ply Gem Windows	
							GA Indicates products that have been certified by NAHB as eligible for points toward National Green Building Certification. Visit www.GreenApprovedProducts.com for more details.
							NAHB STANDARDS
ALL	ALL GA	ALL	Fascia, Trim Coil, Accessories GA	ALL	ALL	ALL	2-5 601.7 Building materials or assemblies that do not require additional site applied material for finishing
			Drip Edge GA				3 602.4 Drip edge is installed at eaves and gable roof edges
		ALL GA					4 602.5 Gutter and downspout system is installed to carry water at least 5 feet away from perimeter foundation walls
ALL	ALL GA	ALL	Fascia, Trim Coil, Accessories GA	ALL	ALL	ALL	2-6 602.8 Termite - resistant
			ALL			ALL	4 602.12 Flashing details are shown on plans and flashing is installed
	ALL	ALL	ALL	ALL	Composite Rail	ALL	1-6 604.1 Building materials with recycled content are used
					Composite Rail	ALL	3 for each material 607.1 Products used contain fewer materials to meet the same end-use requirements as conventional products
ALL	ALL	ALL	ALL	ALL	ALL	ALL	2-10 608.1 Indigenous materials are used for major elements of the building
							3-15 609.1 Select the more environmentally preferable product or assembly
						ALL	Mandatory 701.4.6 Fenestration, The NFRC certified U-factor and SGHC for windows, exterior doors, skylights, and tubular daylighting devices (TDDs) are in accordance with ENERGY STAR, or equivalent
						ALL	30-120 702.2 Energy efficiency features are implemented to achieve energy cost performance that exceeds IECC
						ALL	10-36 plus 15-45 703.1.1 Total building thermal envelope UA is less than required by Section 402.1.4 of the IECC
							15 703.1.2 Third party graded Insulation
						ALL	5-14, depending on zone 703.3 The NFRC certified U-factor and SHGC for windows, exterior doors, skylights, and tubular daylighting devices are in accordance with Table 703.2.2(a) or (b)

LEED	PLY GEM STONE	Available from other Ply Gem brands			
POINTS AVAILABLE	Stone Veneer	Premium Vinyl Siding	Insulated Vinyl Siding	Polymer Shake and Shingle	Vinyl Soffit
	Ply Gem Stone	Mastic® Home Exteriors NAPCO® Cellwood® Georgia Pacific Durabuilt	Mastic® Home Exteriors NAPCO® Georgia Pacific	Mastic® Home Exteriors NAPCO® Cellwood® Georgia Pacific Durabuilt	Mastic® Home Exteriors NAPCO® Cellwood® Georgia Pacific

LEED HOMES

Energy & Atmosphere					
EA 1 Optimize Energy Performance	1 - 34	ALL		ALL	
EA 3 Air Infiltration	Max 3	ALL		ALL	
EA 4 Windows	Max 3				
Material and Resources					
MR 2 Environmentally Preferable Products	Max: 8	ALL			
Indoor Environmental Quality					
EQ 1 ENERGY STAR with Indoor Air Package	Max: 13				

LEED NC COMMERCIAL

Energy & Atmosphere					
EA Prereq 2 Minimum Energy Performance					
EA 1 Optimize Energy Performance	1 - 10	ALL		ALL	
Material and Resources					
MR 4.1 Recycled Content, 10% (post-consumer + 1/2 pre-consumer)	1				
MR 4.2 Recycled Content, 30% (post-consumer + 1/2 pre-consumer)	1				
MR 5.1 Regional Materials, 10% Extracted, Processed & Manufactured Regionally	1	ALL	ALL	ALL	ALL
MR 5.2 Regional Materials, 20% Extracted, Processed & Manufactured Regionally	1	ALL	ALL	ALL	ALL
Indoor Environmental Quality					
EQ 2 Increased Ventilation	1 - 10				
EQ 8.1 Daylight & Views, Daylight 75% of Spaces	1				
EQ 8.1 Daylight & Views, Daylight 90% of Spaces	1				

LEED HOMES & LEED NC COMMERCIAL



Available from other Ply Gem brands							LEED
Designer Accents	Aluminum Soffit	Aluminum Rain Carrying	Aluminum Accessories	Leaf Protection	Fence and Rail	Windows	POINTS AVAILABLE
Mastic® Home Exteriors Richwood Exterior Finishings	Mastic® Home Exteriors NAPCO® Cellwood® Georgia Pacific Durabuilt	Mastic® Home Exteriors NAPCO®	Mastic® Home Exteriors NAPCO® Cellwood® Georgia Pacific Durabuilt	Leaf Relief® By Ply Gem	Kroy® by Ply Gem Fence and Rail Solutions	Ply Gem Windows	
							LEED HOMES
							Energy & Atmosphere
						ALL	1 - 34 EA 1 Optimize Energy Performance
						ALL	Max 3 EA 3 Air Infiltration
						ALL	Max 3 EA 4 Windows
							Material and Resources
						ALL	Max: 8 MR 2 Environmentally Preferable Products
							Indoor Environmental Quality
						ALL	Max: 13 EQ 1 ENERGY STAR with Indoor Air Package
							LEED NC COMMERCIAL
							Energy & Atmosphere
						ALL	EA Prereq 2 Minimum Energy Performance
						ALL	1 - 10 EA 1 Optimize Energy Performance
							Material and Resources
						ALL	1 MR 4.1 Recycled Content, 10% (post-consumer + 1/2 pre-consumer)
						ALL	1 MR 4.2 Recycled Content, 30% (post-consumer + 1/2 pre-consumer)
ALL	ALL	ALL	ALL	ALL	ALL	ALL	1 MR 5.1 Regional Materials, 10% Extracted, Processed & Manufactured Regionally
ALL	ALL	ALL	ALL	ALL	ALL	ALL	1 MR 5.2 Regional Materials, 20% Extracted, Processed & Manufactured Regionally
							Indoor Environmental Quality
						ALL	1 - 10 EQ 2 Increased Ventilation
						ALL	1 EQ 8.1 Daylight & Views, Daylight 75% of Spaces
						ALL	1 EQ 8.1 Daylight & Views, Daylight 90% of Spaces

FOR MORE INFORMATION ON SUSTAINABLE PRODUCTS
AND PRACTICES, VISIT THE FOLLOWING WEBSITES:

www.plygemstone.com
www.plygem.com
www.plygemwindows.com

www.vinylsiding.org/
www.energystar.gov/
www.usgbc.org/LEED/
www.nahbgreen.org/
www.GreenApprovedProducts.com



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Windows Siding Stone Veneer Fence+Rail Designer Accents plygem.com

