

PRO SERIES

REPLACEMENT WINDOWS



A WHOLE NEW POINT OF VIEW.

It's more than a window. It's a whole new point of view. At Ply Gem Windows, we have a different view for the way the window business should be run. We believe you should have access to all of the top quality styles and brands across the country. That's why we've taken our entire portfolio of brands, brands that you know and trust, and given them one name – Ply Gem Windows. With this one name comes a lot of big advantages, starting with a national manufacturing and distribution network. Pair that with our commitment to customer service, sustainable practices and wide variety of window styles that fit all of your design needs, and you'll get the right window for every project and every budget.

And, because we're part of the Ply Gem family, you know you'll always have access to leading brands. Windows, doors, siding and accessories, stone veneer, fence and rail, rainware, shutters and designer accents, we have something for every project. We work with residential builders, remodelers, architects, distributors and dealers to help build sales. When you combine over 50 years of experience, industry-leading customer service, and trusted local relationships you've got a company you can count on. **Ply Gem. Building products. Building success.**

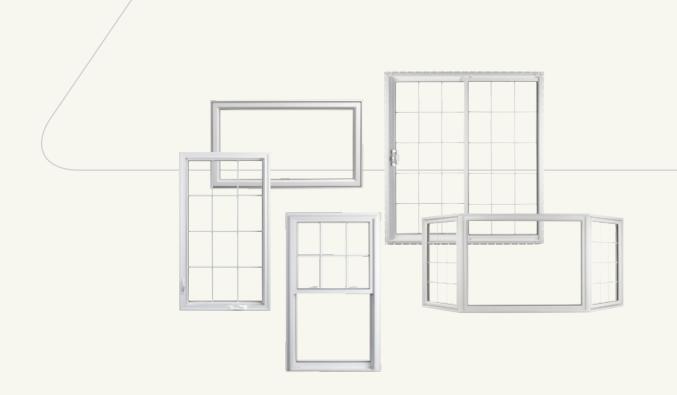


PRO SERIES

TABLE OF CONTENTS

Explanation of Glass Packages	13.1
Pro Series Replacement Overview	
Warranty and Design Pressure Information8	
ENERGY STAR [®] and Energy Efficiency Information9	
Double Hung Window10	
Sliding Window12	
Casement and Awning Window14	L I
Bay Window	16
Bow Window	. 18
Sliding Patio Door	20
Glass and Screen Options and Low-E Information	22
Grille Options and Icon Glossary	23

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Built to last. Made to impress. You have a vision for how you want your replacement windows to look. Ply Gem Windows Pro Series can help you realize that vision. Every window is designed to fit your needs. You'll find the right sizes, the right designs and the right solutions to help make your window replacement project a success.



EXPLANATION OF GLASS PACKAGES

PERFORMANCE COMPARISON



The lower the U-Factor, the greater the insulation value. R-Value is the inverse (R=1/U) of the U-Factor. Total Unit Factors determined per NFRC-100 (National Fenestration Rating Council). Chart shows relationship between performance and Ply Gem Windows glass package options, not including energy package upgrade.

*Ply Gem Windows R-5 products meet or exceed a U-Factor of 0.20 on fixed units & 0.22 on operating units.



LOW-E GLASS PACKAGES FOR HIGH ALTITUDES

Our Low-E glass packages combine Low-E and Warm Edge spacer options, providing insulating glass options to meet your specific

needs. Our Low-E glass packages provide better performance in regions with hot summers and cold winters. Our Low-E^{sc} (solar cooling) glass packages are optimized for regions with significant indoor cooling and glare reduction requirements. Our Low-E glass packages can be combined with capillary tubes to address performance needs in high altitude applications.

Low-E^{\ddagger} – One lite of Low-E.

Low-E^{sc‡} – One lite of solar cooling Low-E.

Low-E2^{\ddagger} – One lite of Low-E and one lite of Interior Surface Low-E.

Low-E2^{sc‡} – One lite of solar cooling Low-E and one lite of Interior Surface Low-E **Low-E2**_{MAX}[‡] – Triple-pane with two lites of Low-E with an interior glass substrate

Low-E3_{MAX}[‡] — Triple-pane with two lites of Low-E and one lite of Interior Surface Low-E

+ These glass packages are combined with capillary tubes to address performance needs in high altitude applications.



HP GLASS PACKAGES

Our HP glass packages combine Low-E with argon gas fill and Warm Edge spacer options, providing high-performance insulating glass

options to meet your specific needs. Argon is a safe, odorless, colorless gas, which is heavier or denser than air. When used in conjunction with Low-E glass, argon provides better insulation. That's because heat and cold do not pass through argon gas as easily as through air. Argon is nontoxic and presents no human health or environmental concerns. Our HP glass package is also available in a solar cooling (^{sc}) glass package for regions with significant indoor cooling and glare reduction requirements.

HP – One lite of Low-E and argon gas fill.

HP^{sc} – One lite of solar cooling optimized Low-E and argon gas fill.

HP2 – Two lites of Low-E with argon gas fill.

HP2+ — One lite of Low-E and one lite of Interior Surface Low-E with argon gas fill.



HPMAX GLASS PACKAGES (triple-pane)

Our HPMAX glass packages are triple-pane units that combine Low-E with two chambers of argon gas fill and Warm Edge spacer options, providing enhanced high-performance insulating glass options to meet your specific needs.

HP2_{MAX} — Triple-pane with two lites of Low-E with an interior glass substrate and two chambers of argon gas fill. **HP3**_{MAX} — Triple-pane with two lites of Low-E and one lite of Interior Surface Low-E and two chambers of argon gas fill.



WHAT ARE R-5 WINDOWS?

High-performance R-5¹ windows are highly insulating windows with a whole-window R-Value of 5 (a U-Factor of around 0.2). Most of our Pro series products can be configured as R-5 units. These products are the top tier of energy-efficient windows for cold and mixed climates.

ENERGY STAR[®] windows have a U-Factor of around 0.3. Reducing the U-Factor from 0.3 to 0.2, with high-performance R-5 windows, reduces average heat loss through the window by more than 30%,² and saves consumers money on energy bills.

¹ R-5 = U-Factor of .22 or lower for operating units; .20 for fixed units ² U.S. Department of Energy – Energy Efficiency and Renewable Energy EERE News, May 27, 2010

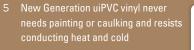
PRO SERIES REPLACEMENT





OVERALL FEATURES

- Glass systems with Warm Edge (standard) or Warm Edge+ (optional upgrade) spacer systems and HP or HPMAX glass package options offer increased energy-efficiency
- 2 Vinyl won't conduct heat or cold, dramatically reducing frost and condensation
- 3 Pinch fusion-welded sash and mainframes for high strength and high energy-efficiency
- 4 Double hung windows feature integral interlock for a weathertight seal and extra security



- 6 Limited lifetime warranty means your windows are protected under the warranty for as long as you own your home
- 7 Sloped sill with unique SilLock design ensures natural water run-off
- 8 Warm Edge glass spacer systems reduce thermal transfer around the glass perimeter by using a unique U-shaped channel to separate glass panes and interrupt the natural flow of heat to cold





DESIGN PRESSURE (DP) RATINGS



Ply Gem Pro Series products are tested to meet the air, water and structure requirements of AAMA/WDMA 101/I.S.2. Our products meet a Design Pressure (DP) rating of 35 (double hung) to as high as 70 (operating casement gateway size of 24" x 60").

With advanced level engineering and top-notch innovation, you are assured of the most durable, high-performing windows available nationwide.

Ask your Ply Gem Windows dealer or distributor for specific DP ratings for each Pro replacement style.

LIMITED LIFETIME WARRANTY

One of Life's Few Guarantees.

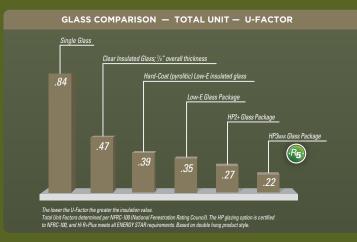
Life comes with few guarantees. Fortunately, Pro Windows offer you a permanent solution. Our custom vinyl windows offer more than construction quality, unmatched energy- efficiency and low maintenance. They also offer a Limited lifetime warranty.

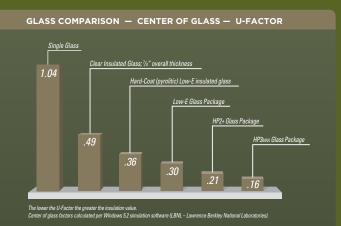
We believe so strongly in the durability of our windows that we back each window unit with our hassle-free Limited lifetime warranty. Lifetime means your windows are protected under the warranty for as long as you live in your home. And your warranty is transferable to the next homeowner helping you protect your investment by increasing your home's resale value.

Wouldn't it be nice if you could feel so confident about everything you bought?

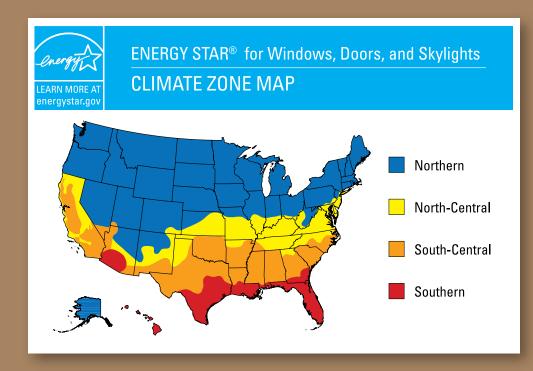
4 ARRE

ENERGY EFFICIENCY





ENERGY STAR® INFORMATION



Ply Gem Replacement Pro Series windows and patio doors can be configured to meet a specific ENERGY STAR zone in all states. Your investment in ENERGY STAR products will pay for itself over time in reduced energy bills, not to mention increase the comfort level inside your home.





PLY GEM PRO SERIES WINDOWS HAVE BEEN GREEN APPROVED BY THE NAHB RESEARCH CENTER.

This means you can be assured that Ply Gem Pro Series windows comply with specific green practice criteria in the National Green Building Standard. Visit www.GreenApprovedProducts.com for more details.



DOUBLE HUNG WINDOWS offer beauty, maintenance freedom and peace of mind at a price you can live with. Configurations include operating, fixed and factory mulled units.

DOUBLE HUNG WINDOW





WHITE

BEIGE

SANDSTONE

Colors are reproduced as accurately as printer technology allows. Please see your authorized Ply Gem Windows representative for actual samples. FEATURES

- 1 New equal sightline sash to match traditional wood window appearance
- 2 Ventilation limit-locks for added security when windows are partially open. Optional child safety vent latch available
- 3 Fusion-welded frames and sash stay strong and in place for a lifetime of dependable performance
- 4 Fin and pile weatherstripping on both sash and mainframe for protection against air, dust and moisture
- 5 Constant force balance system
- 6 New sleek, low-profile design two camaction locks on windows over 25" wide
- 7 Warm Edge (standard) or Warm Edge+ (optional upgrade) spacer systems and HP or HPMAX glass package options offer increased energy-efficiency
- 8 Lift rail for ease of operation
- 9 Ergonomically designed tilt latch buttons for easy tilting in of both sash makes it easy and safe to clean the exterior of window
- 10 New Generation uiPVC vinyl never needs painting or caulking and resists conducting heat and cold
- 11 Extruded aluminum half screen with fiberglass mesh
- 12 SilLock design featuring sloped sill to keep windows dry and weather-tight seal at sill
- 13 Integral interlock and dual fin and pile weatherstripping on both sash and ainframe for protection against air, dust and moisture













BEIGE



SLIDING WINDOW

SLIDING WINDOWS. Panoramic vistas meet ultimate convenience with our sliding windows. Their undeniable beauty is matched only by their superior thermal performance, letting you enjoy your view ever so comfortably. Available sliding window configurations include two- and three-lite configurations. Three-lite configurations available in 1/4-1/2-1/4 lite and 1/3-1/3-1/3 equal lite.

SLIDING WINDOW





Color Options



FEATURES

- State-of-the-art track and adjustable roller system for easy gliding
- Fully fusion-welded sash and mainframe for extra strength
- 3 Ventilation limit-locks for added security when windows are partially open. Optional child safety vent latch available
- 4 New sleek, low-profile design, cam-action locks on windows over 25" tall
- 5 In-home removable sash for safe, easy cleaning
- 6 Warm Edge (standard) or Warm Edge+ (optional upgrade) spacer systems and HP or HP_{MAX} glass package options offer increased energy-efficiency
- 7 Integral interlock and dual fin and pile weatherstripping on both sash and mainframe for protection against air, dust and moisture
- 8 Extruded aluminum half screen with fiberglass mesh
- 9 Trim line design for maximum viewing area
- 10 New Generation uiPVC vinyl never needs painting or caulking and resists conducting heat and cold







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CASEMENT & AWNING WINDOW

CASEMENT & AWNING WINDOWS. Dressing up your home with European flair has never been so rewarding. With a full 90° sweep, these windows give nature a warm welcome in nice weather. But they work even better at giving bad weather the cold shoulder. Configurations include single, twin, triple and quad with integral or factory mulled options.

CASEMENT & AWNING WINDOW







Color Options



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FEATURES

- Fusion-welded frames and sash stay strong and in place for a lifetime of dependable performance
- 2 Casements open a full 90° for easier, safer cleaning
- 3 Aluminum extruded screen with low profile retention clins
- 4 Warm Edge (standard) or Warm Edge+ (optional upgrade) spacer systems and HP or HP_{MAX} glass package options offer increased energy-efficiency
- 5 Easy-to-reach multi-point locking system provides increased security with a single conveniently located handle
- 6 New Generation uiPVC vinyl never needs painting or caulking and resists conducting heat and cold
- 7 Folding/nested operating handles are standard on all Pro Series casement & awning windows
- 8 Upgrade casement windows with the optional stainless steel hardware for protection against corrosion in coastal areas; this option includes the operator mechanism arms, sash brackets, hinges, snubbers, tiebars and keepers













Stainless steel operating components provide protection against corrosion in coastal areas. Upgrade casement windows with the Pro Series stainless steel hardware option.







Folding/nested operator handle



Matching lock features a sleek low-profile design that, in either the locked or unlocked position, won't interfere with curtains or blinds





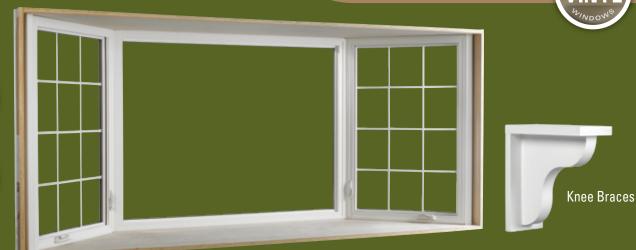
BAY WINDOW

BAY WINDOWS. All the world's a stage, and this is your personal theater. The best part is that while the drama happens outdoors, award-winning performances for beauty and energy-efficiency go on and on inside. Bays available in 3 or 4 window, 35° and 45° configurations.

BAY WINDOW







Pre-finished or Laminated Interior Head, Seat and Jamb Options



Solid Surface Seat Options



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Support and Insulation Systems

(2) Cable Kits Standard

External Knee Braces

- 1 Provides exterior support for bay, bow and garden windows¹
- 2 Available in white, beige, earthtone and sandstone
- 3 Pre-finished to be maintenance free

 Required and included standard with garden window. Knee braces and cable system are required for bay/bow windows and are included with the window.

FEATURES

- 1 Custom made to ensure a good fit in your home
- 2 Fusion-welded frames and sash for extra strength and dependable performance
- 3 Available in casement or double hung styles
- 4 Choose from four available grille options
- 5 Warm Edge (standard) or Warm Edge+ (optional upgrade) spacer systems and HP or HP_{MAX} glass package options offer increased energyefficiency
- 6 Heavy-duty weatherstripping ensures a tighter seal
- 7 Multi-point locking system secures the window in several locations simultaneously with a single handle
- 8 New Generation uiPVC vinyl never needs painting or caulking and resists conducting heat and cold









Superior Insulated Seats

- Insulated with high density polystyrene insulating board combined with a ¾" exterior grade plywood surface – 3" overall thickness
- 2 R-Value of 7.6 six times that of a typical noninsulated bay/bow windows
- 3 Available in white or beige (earthtone units are clad with brown coil)





BOW WINDOW

BOW WINDOWS. All the world's a stage, and this is your personal theater. The best part is that while the drama happens outdoors, awardwinning performances for beauty and energy-efficiency go on and on inside. Bows available in 3, 4 or 5 window configurations.



Pre-finished or Laminated Interior Head, Seat and Jamb Options



Solid Surface Seat Options



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Support and Insulation Systems

(2) Cable Kits Standard

External Knee Braces

- 1 Provides exterior support for bay, bow and garden windows¹
- 2 Available in white, beige, earthtone and sandstone
- 3 Pre-finished to be maintenance free
- 1. Required and included standard with garden window. Knee braces and cable system are required for bay/bow windows and are included with the window.

FEATURES

- 1 Custom made to ensure a good fit in your home
- 2 Fusion-welded frames and sash for extra strength and dependable performance
- 3 Available in casement or double hung styles
- 4 Choose from four available grille options
- 5 Warm Edge (standard) or Warm Edge+ (optional upgrade) spacer systems and HP or HP_{MAX} glass package options offer increased energyefficiency
- 6 Heavy-duty weatherstripping ensures a tighter seal
- 7 Multi-point locking system secures the window in several locations simultaneously with a single handle
- 8 New Generation uiPVC vinyl never needs painting or caulking and resists conducting heat and cold









Superior Insulated Seats

- Insulated with high density polystyrene insulating board combined with a ¾" exterior grade plywood surface – 3" overall thickness
- 2 R-Value of 7.6 six times that of a typical noninsulated bay/bow windows
- 3 Available in white or beige (earthtone units are clad with brown coil)





SLIDING PATIO DOOR

SLIDING PATIO DOORS are your home's way of welcoming guests with arms wide open. But when heat, cold, rain, wind or intruders come knocking, this beauty is tough as nails. Configurations include twopanel units with optional complementary side lites and transoms.

SLIDING PATIO DOOR







FEATURES

- fully welded for superior strength and durability
- 2 Full perimeter, high performance weatherstripping
- 3 Warm Edge (standard) or Warm Edge+ (optional upgrade) spacer package options offer increased energy-efficiency
- 4 Our doors glide on tandem steel rollers which provide smooth and effortless operation, no matter how many times they are opened and closed
- 5 Add the convenience of an easy-toto vent your home while providing peace-of-mind
- 6 Standard sizes: 5' x 68", 6' x 68" and 8' x 68"
- 8 New Generation uiPVC vinyl never needs painting or caulking and resists conducting heat and cold









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Pro Replacement Series Sliding Patio Doors are available in white (interior/exterior) and beige (interior/exterior) only.



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GLASS OPTIONS

- Low-E • Low-E^{sc}
- Low-E2
- Low-E2^{sc}
- Low-E2*MAX**
- Low-E3*max**
- HP
- HP^{sc}
- HP2
- HP2+

- HP2*мах* *
- HP3*MAX**
- Tinted
- Double Strength glass
- Obscure

- Glue Chip Obscure
- Tempered
- Laminated
- Sound Package

* See page 6 for explanation of glass packages. Low-E2MAX, Low-E3MAX, HP2MAX and HP3MAX are not available on all products, see product pages for details. Contact your Ply Gem sales representative for a full list of Contractor Series glass thickness options and ratings.



Optional Advanced Easy Clean® Glass is a remarkable advancement in glass design that eliminates frequent exterior window cleaning. Windows and doors with special Easy Clean Glass require less effort than windows with ordinary glass.

WHAT IS LOW-E?

Low-E glass has a secondary, very thin metallic dual layer coating. This allows the sun's heat and light to pass through the insulating glass, but, at the same time, actually works to reflect radiant heat back toward its source. Since Low-E coating reflects radiant heat waves, it helps keep your home warmer in the winter by trapping radiant heat and cooler in the summer by blocking it from your home.

NATURAL LIGHT WITHOUT THE GLARE.

Ply Gem's Low-E glass has many advantages such as minimal visible darkening. Our glass

minimizes interior glare, reducing eyestrain and making it easier to watch television or look at a computer screen when bright sunlight fills a room.



SCREEN OPTIONS

Fiberglass mesh is the standard insect screening material used on all Ply Gem Windows replacement products with available half or full screens. This product provides good outward visibility and ventilation and will not rust, corrode or stain. Additional options available include:

ALUMINUM MESH

Provides added protection against aggressive regional insects that eat through normal fiberglass mesh. Charcoal finish reduces glare.

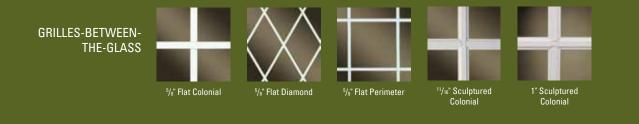
SOLAR BLOCK MESH

Blocks 70% of the sun's heat and glare. Keeps living spaces cooler, reduces energy costs and protects furnishings against fading.

OPTIMUM VIEWING MESH

Thinner fiberglass material allows maximum viewing while tighter mesh pattern keeps out tiny insects.

CUSTOM GRILLES



ICON GLOSSARY

Below is a glossary of our icons that you will see throughout the Ply Gem Windows Replacement brochures. These icons identify features and benefits for each window so you can easily understand what is available to you with each style.



WARM EDGE TECHNOLOGY

The Warm Edge glass spacer system within Ply Gem Pro Series Replacement windows reduces thermal transfer around the glass perimeter by utilizing a unique U-shaped channel to separate glass panes and interrupt the natural flow of heat to cold. Warm Edge is one continuous piece creating a stronger, more energyefficient insulated glass unit. Plus it flexes with glass expansion and contraction to ensure a strong seal for the life of the window.



SIL LOCK

Pro Series Replacement double hung windows with SilLock are built with a sloped sill which forces water to drain to the exterior of the window, keeping your windows dry. This unique design also ensures a tight weatherstrip contact at the sill.

Ply Gem windows and patio doors can be ordered in <u>1/8 inch increments to accommodate any replacement</u>

application providing a perfect fit and minimizing installation time and special trimming requirements.



WARM EDGE+ TECHNOLOGY

The Warm Edge+ Spacer System has all of the features of the Warm Edge Spacer, but utilizes a new, less conductive material which provides a lower U-Factor.



R-CORE® INSULATION

Available as an option on the Ply Gem Windows Pro Series, the vinyl mainframes can be filled with patented* R-Core® offers more than twice the insulating performance as the typical wood frame and nearly four times more than hollow vinyl or aluminum frames.

* U.S. Patent Number: 4,516,356



NEW GENERATION VINYL

Wood or metal windows can stick when they swell or deteriorate from corrosion. New Generation Vinyl withstands harsh weather and wear-and-tear better. Ply Gem Pro Series Replacement windows are constructed with rugged, maintenance-free New Generation uiPVC. Its low conductivity and high energy-efficiency properties are ideal for Ply Gem's advanced window construction. And because vinyl's base color is solid through-and-through, you'll never need to paint or stain these windows.



RDWP

COASTAL HARDWARE

CUSTOM SIZING

Typical hardware can easily become corroded or damaged when exposed to constant salt in the air. Ply Gem windows with coastal hardware will consistently stand up to saltwater and other harsh coastal conditions.

DP CERTIFIED

Ply Gem Pro Series Replacement windows are tested to meet the air, water and structure requirements of AAMA/WDMA 101/I.S.2. Our products meet a Design Pressure (DP) rating of 35 (double hung) to as high as DP70 operating casement (gateway size of 24" x 60"). With advanced level engineering and top-notch innovation, you are assured of the most durable, highperforming windows available nationwide.



PINCH FUSION WELDING

Ply Gem Pro Series Replacement windows are entirely fusionwelded – sashes and mainframes – to create a solid, one-piece unit that maintains its strength over the years. Our state-of-theart fusion process ensures frame and sash corners won't have the excess variance found with other welding techniques.



Ply Gem, the Ply Gem logo, the "Building Products. Building Success." slogan, Ply Gem Windows and the Ply Gem Windows logo are trademarks of Ply Gem Industries, Inc. R-Core and Advanced Easy Clean are registered trademarks of Ply Gem Windows. ENERGY STAR® is a registered trademark of the U.S. Environmental Protection Agency. ©2011 Ply Gem Industries, Inc.

For more information, call 888-9PLYGEM.

