RamProof GC

Single-Component Fluid Applied Elastomeric Rubberized Asphalt Roofing & Waterproofing System

Proven performance over time is the best indicator of quality when it comes to roofing & waterproofing systems. The Barrett Company has been providing top quality materials & systems for roofing & waterproofing since 1928.

Our hands-on experience & personalized attention to each project has proven itself to be an invaluable asset that is readily available to architects, engineers, contractors, and builders alike.

Applications

1. Plaza Decks
2. Protected Membrane Roofs (IRMA®)
3. Green Roofs
4. Built-Up Roofs
5. Cool Roofs
6. Foundation Waterproofing
7. Under Tile Waterproofing
8. Bridge Decks
9. Parking Decks
10. Pool Decks
11. Planters
12. Stadiums
13. Balconies
14. Tunnels

Why Barrett?

Preserving the past with experience & the future with technology.

Barrett's leadership in roofing & waterproofing dates back more than three-quarters of a century. Since the early days of built-up roof construction, Barrett has become a pioneer in the field, improving its materials, application methods, and facilities for service stride-for-stride with the advance of the building industry as a whole.

Today, the Barrett Company has become a national leader in evolving bitumen modification technology and the design of high-performance waterproofing, built-up roofing systems, and vegetated roofs.

The time-proven performance of our company and our superior products sets us apart from the giant "everything to everybody" suppliers. Our direct, "hands-on" experience, with personalized attention to each project, is an asset that provides true value and is always readily available to all architects, engineers, contractors, and builders alike.

With nearly a century of experience providing top quality roofing & waterproofing systems for leading architects, engineers, and builders of modern structures, we can say with confidence that no finer materials of this character are obtainable than those bearing the Barrett label.

PICTURED: "Barrett's Handbook on Roofing & Waterproofing" (©1896)

KNOWLEDGE
Barrett's understanding & acquired knowledge of roofing basics & material engineering concepts, from asphalt polymerization to felt condensing techniques; from workable flashing techniques to CAD detailing, is applied to each and every project by a Registered Roof Consultant or a corporate principle.

EXPERIENCE
With over ninety years of diverse roofing & waterproofing applications, countless material & roof analyses accumulated through both practical, "hands-on" experience & theoretical laboratory pursuits, Barrett has developed a realm of experience, particularly in the waterproofing and reroofing fields, that is unique and unequaled by other manufacturers.

TRUST
Roofing performance promises are easy to make, but hard to deliver. Almost all roofing material manufacturers advertise that they offer the "best" or "ultimate" systems to meet every need of every customer. Our approach focuses on the needs of each customer individually & ensuring they know exactly what they are getting.

VALUE
Every designer and specifier has the right to expect excellence with service, as well as excellence in product & systems knowledge from their suppliers. Every building owner has the right to expect a leak-free, watertight system that will stay that way beyond the warranty period. Our job is to provide the best possible system for each application. To do that, we must manufacture a variety of systems and test them to ensure they can all exceed certain levels of performance & protection.

MADE IN THE USA
At the Barrett Company, we believe "Made in America" still means something special— Quality, Dependability, Safety, Reliability— products that feature the most advanced technologies and the best value. When you buy American, you not only buy the best, you help our country curb import-export imbalances, grow employment, calm inflation, and strengthen our industrial infrastructure. All of our products are proudly Made in America.

APPROVED CONTRACTORS
Service with expertise is the hallmark of every Barrett warranted project. Barrett roofing & waterproofing warrantied applications must be installed by Barrett-approved contractors. Each fully approved contractor is experienced, knowledgeable, and carefully selected at the time of approval.

WARRANTIES
The Barrett Company offers a variety of long-term warranties for labor & materials for up to 30 years. Terms vary depending on the product and application.

QUALITY CONTROL
Over $50 million has been invested in the research, technology, & development of our product lines. Each polymer-modified bitumen production run is individually certified to be in conformance with specifications prior to shipping. Barrett's expert technical staff is available to work with designers & specifiers during project development & construction to assure proper design & installation. Many of our systems hold UL & FM, ICC, ASTM, & Miami Dade approvals/certifications.

THE ENVIRONMENT
The Barrett Company makes the environment a priority in the engineering, manufacturing, and recycled content of its roofing & waterproofing products. RamTough 250 bitumens are manufactured with recycled tires, and their reinforcement includes recycled plastics. Energy Star® Certified roof coatings are offered for most systems, which can contribute to LEED® credits. Greenroof-Roofscapes® offer many environmental contributions well beyond any other roof type.

No project is too small to be considered important. No detail is insignificant in the delivery of our product. No compromise of installation shall be considered acceptable without the concurrence of the building owner & the architect.

Our service is our uniqueness. Our reputation is proof.

RamProof GC

Single-Component Fluid Applied Elastomeric Rubberized Asphalt Waterproofing Membrane

RamProof GC

Single-Component Fluid Applied Elastomeric Rubberized Asphalt Roofing & Waterproofing Membrane

RamProof GC (Green Concrete) is comprised of an industry changing asphaltic-rubber formulation that combines the elastic properties of modified rubber with the weatherproofing and waterproofing characteristics of emulsified asphalt. The resulting asphaltic-rubber membrane provides a complete, high-performance waterproofing membrane that is VOC-free, environmentally friendly, rapidly installed, and delivers a complete solution for the entire scope of waterproofing.

RamProof GC forms to a single set, fully adhered, monolithic, and seamless membrane that resists hydrostatic pressure, bridges cracks and will move with the created expansion and contraction of surfaces.

- **Single-Component System**
- **Expands & Contracts**
- **+2000% Elongation & Self Healing**
- **Quick return to service; Applied immediately after forms removal**
- **Eco-Friendly, No VOCs**
- **Easy, Labor-Saving Application**
- **LEED-Certified**
- **Economical Solution**

APPLICATIONS

- Green Concrete
- Warehouses
- Masonry
- Storage Areas
- Basements
- Tunnels
- Plaza Decks
- Foundation Walls
- Restrooms
- Parking Decks
- Planters
- Bridges

TOOLS

The Ultimate & Complete Barrett Single System Warranty

THE BARRETT GUARANTEE

Unlike other manufactures, Barrett believes that it is our responsibility to focus on what we do best—to provide our customers the most superior waterproofing products on the market. The assembly begins with choosing the correct Barrett system for the job based on the project & application requirements and ensuring the assembly comes with a complete single-source warranty.

Our joint agreements with some of the industry's top suppliers of insulation, pavers, and more allow us to offer customers a **Complete Single-Source Warranty.** This gives our clients the flexibility to choose from a variety of products without being limited to a single offering. All manufacturers and products meet the highest standards and have been tested and approved for use within the Barrett System.

This single source warranty puts the liability on us, allowing our clients to rest easy knowing they chose Barrett as their system.

RamProof GC

10-Year Warranty

For a 10-year system warranty, RamProof GC must be applied at a rate of **60 wet mils.** This equates to roughly **125 sq/ft per 5 gal pail.**

RamProof GC

20-Year Warranty

For a 20-year system warranty, RamProof GC must be applied at a rate of **120 wet mils.** This equates to roughly **65 sq/ft per 5 gal pail.**

Application Instructions

RamProof GC

RamProof GC (Green Concrete) is a single-component, fluid applied elastomeric rubberized asphalt material that forms to a single set, fully adhered, monolithic, and seamless membrane for roofing and waterproofing applications. Its ability to be applied directly over “green concrete” (freshly poured concrete that has begun to set but has not fully cured) allows for rapid installation that can significantly save time and reduce cost.

With the elastic properties of modified rubber and the weatherproofing and waterproofing characteristics of emulsified asphalt, RamProof GC delivers a complete solution for plaza decks, parking decks, basements, tunnels, foundation walls, planters, and other roofing and waterproofing applications.

PRODUCTS	
RamProof GC	Elastomeric Rubberized Asphalt Waterproofing Membrane
RamProof GC* (Trowel-Grade)	Flashings/Detail Work (Optional)
PolyFelt 125VP	Polyester Reinforcement Fabric
Ram Flash 327 HDR	Uncured Neoprene Flashing
KeeneSeal 100	Single-Component Multi-Purpose Elastomeric Sealant
Ram 200*	Polyester-Reinforced SBS-Modified Asphalt Sanded Base Sheet
Ram 201*	Fiberglass-Reinforced Polymer-Modified Asphalt Sanded Base Sheet
Ram 203*	Fiberglass-Reinforced SBS-Modified Asphalt Sanded Protection Course
RamDrain DD-025	0.25” Prefabricated Dimpled Composite Drainage Mat
RamDrain DD-050	0.50” Prefabricated Dimpled Composite Drainage Mat
Ram 306*	Polyester-Reinforced SBS-Modified Asphalt Granular Cap Sheet
Ram 306-FR*	Fire-Rated Fiberglass Reinforced SBS-Modified Granular Cap Sheet

* *Select products to be used based upon conditions of application. For more information, including specific product and assembly recommendations, consult a Barrett Technical Representative.*

MATERIAL STORAGE

Sheet goods should remain in their box and are to be stored on pallets, covered with breathable canvas tarps, kept out of sun in a cool place, 70ºF in the summer & heated to 55ºF in the winter. Shelf life, properly stored, is one year.

Pail goods should be kept out of the sun in a cool place; 70ºF in the summer & heated to 55ºF in the winter, which will provide a shelf life of one year.

Temperature controlled warehousing extends storage time of materials.

Read and be familiar with the Safety Data Sheets (SDS) before using any materials.

SURFACE PREPARATION

Prior to commencement of work, a thorough inspection of the substrate should be carried out to determine whether the surface is satisfactory for application.

The substrate (i.e. slab, walls, footings, etc.) shall be structurally sound and in good standing.

The existing substrate shall be properly repaired of all defects, including voids and cracks, loose material, free of debris. Care shall be taken not to entrap excessive dust or moisture over the surface prior to application.

Substrates must be free of dust, debris, rust, oil, laitance and other contaminants.

Surfaces may be cleaned with a powered blower or filtered air compressor just prior to applying RamProof GC (CAUTION: Unfiltered air compressors often blow out oil and moisture condensation, which will act as a bond breaker.) The use of power blowers or compressed air for cleaning must comply with current OSHA regulations.

The architect/specifier, general contractor, and The Barrett Company shall be notified of unacceptable conditions. Remedial corrections shall be performed prior to Applicator commencing work. No work shall be undertaken until all adverse conditions are rectified.

Concrete Surface

RamProof GC can be applied on “green” concrete up to one day after pour. Do not use liquid curing compounds or calcium chlorides unless approved in writing by the Barrett Company and the curing compound manufacturer. Conduct a deck dryness test in accordance with ASTM D-4263 procedures. All concrete surfaces to be waterproofed shall be wood float or broom finish (A.C.I.301-11.7.3) free of excessive roughness, with a clean, dry surface. Use a pressure washer with a minimum working pressure of 3000 PSI to remove all dirt, dust, and remains of previous waterproofing bitumen, materials, or coatings.

Do not apply RamProof GC over lightweight structural concrete of less than 3000 PSI compressive strength or over lightweight insulating concrete unless approved in writing by Barrett and the concrete manufacturer. Vented metal pan decks are preferred.

Remove dirt and debris from the slabs or footings and walls with a stiff brush or broom. Scrape all debris from the substrate with a metal scraper. Concrete surface preparation shall conform with ASTM D-5295.

Metal Surface

All metal surfaces shall be cleaned of all process oils, paints, silicones, and rust. Power wire brush to a bright metal finish prior to priming. Shot blast, sand blasting, ice blasting, and similar treatments can be used as required. Metalwork must be in place, securely attached, and accurately fitted.

Vertical Surface

Vertical surfaces with form voids or pockmarks should be repaired by packing with non-shrinking grout applied with a bonding agent. All surfaces must be free of loose mortar and laitance. All tie-ends on foundation walls must be cut off flush with the wall surface and repaired with a non-shrinking grout applied with a bonding agent.

PICTURED: Contractor uses a mechanical mixer to slowly mix the RamProof GC material before it is applied over the substrate. Mixing the material at a slow speed helps to prevent bubbles or air pockets.

MIXING

RamProof GC should be thoroughly mixed using a mechanical mixer at slow speed to ensure a smooth, consistent material. Take care not to allow air into the material to avoid bubbles or air pockets in the mix.

DETAIL WORK

All protrusions, cracks under 1/16” wide, holes (honeycomb concrete), or turn ups shall be detailed according to Barrett’s latest printed instruction using a combination of RamProof GC or non-shrinking grout. Use RamProof GC to fill voids around tie-holes, recessed ties, and other small voids. RamProof GC is available in a trowel grade, as well as in 30 oz caulking tubes.

Corners

For exterior and interior corners, apply 30 mils of RamProof GC directly to the substrate. Cut two 10-inch-wide strips of Polyfelt 125VP polyester reinforcement fabric. Embed the first strip into the first coat of RamProof GC, 4 inches on one side and 6 inches on the other side, squeegeed firmly into place without any voids or air pockets. Once embedded, apply 30 mils of RamProof GC onto the first layer of RamProof GC. Embed the second 10-inch-wide strip of Polyfelt 125VP into the second coat of RamProof GC, alternating so that there are 6 inches over the 4-inch side of the first strip and 4 inches over the 6-inch side, squeegeed firmly into place without any voids or air pockets.

Drains

Carefully clean drain sumps of any process oils, rust, or other contaminants with solvent and powered wire brush if required. Make sure drain is set below or at the drainage plane so that there are no dams preventing free flow of water.

Apply 60 mils of RamProof GC a minimum of 8 inches around the drain. Cut a 2 ft. square sheet of Ram Flash 327 HDR uncured neoprene flashing and embed it into the RamProof GC, running the sheet onto the field of the deck. Cut out a small circular opening with slits carefully cut back to partially conform to the drain bowl shape. Install a clamping ring and cut back interior slit sheets to within 1 to 2 inches from the inside of the clamping ring. Do not allow any laps in clamping ring area. All drains require clamping rings.

Penetrations

Coat the pipe/sleeve and surrounding base of any exposed penetrations with 60 mils of RamProof GC. Cut a star pattern into a sheet of PolyFelt 125VP polyester reinforcement fabric slightly smaller than the outside diameter of the penetration. Wrap the pipe/sleeve with PolyFelt 125VP to achieve a minimum of a 2-inch lap. Cut 3-inch long fingers at the base of the wrap to extend out at the change in direction. Apply another 60 mils of RamProof GC over the fabric, extending onto the pipe and substrate. Any exposed RamProof GC membrane must be covered with Ram 306, Ram 306FR, or comparable granular cap sheets. Install stainless steel drawbands at the top of RamProof GC, then cap with KeeneSeal 100.

Cracks

For cracks less than 1/16 inch in width, apply 60 mils of RamProof GC or non-shrinking grout a total of 6 inches from each side of the crack.

For cracks 1/16 inch to 1/4 inch in width, apply 60 mils of RamProof GC and embed a minimum 6-inch wide Ram Flash 327 HDR uncured neoprene flashing tape. The tape must extend 3 inches to either side of crack and be freeof fish-mouths. Lap separate lengths of Ram Flash 327 HDR a minimum of 3 inches and adhere with 60 mils of RamProof GC.

JOINTS

Cold Joints & Construction Joints

At cold joints and construction joints, remove any premolded joint filler to a minimum depth of 1/2 inch. Apply 30 mils of RamProof GC over the joint. Immediately after application, embed a 6-inch-wide sheet of Ram Flash 327 HDR uncured neoprene flashing directly into the material so that it extends minimum 3 inches out from either side of the joint. Ensure material extends beyond the edges of the neoprene flashing, and that the sheet is fully adhered and free of wrinkles and fish-mouths.

Expansion Joints

Apply RamProof GC to the expansion joint area. Allow to dry tack-free. Select the Ram Flash 327 HDR elastomeric sheeting size that, upon final installation, will provide a minimum 12-inch width of sheeting bonded to each side of the joint. If necessary, join the lengths of sheeting to equal the length of the joint, allowing a minimum 6 inches for each end-lap in the sheets. Bond each end-lap in the sheet a minimum 6 inches in width, prior to installing in the joint. Bond the Ram Flash 327 HDR elastomeric sheeting with approved bonding adhesive or RamProof GC to one side of the joint, a minimum 12 inches in width. Loop the sheet down into the joint to a depth equal to 1-1/2 times the joint opening at maximum anticipated movement, as indicated by the drawings. Embed the Ram Flash 327 HDR elastomeric sheet likewise to the other side of the joint.

Coat the entire assembly with RamProof GC and fill the loop flush to the deck. At the surface of the joint, install a closed-cell polyurethane foam rod with a diameter equal to the width of the joint opening. Install a second sheet of Ram Flash 327 HDR over the foam rod being careful not to touch the foam rod with the RamProof GC. The sheet should be loosely laid over the foam rod.

Overcoat the flat portion of the neoprene; do not coat the bulb over the foam rod. All expansion joints should be on raised curbs out of the drainage plane. Always consult Barrett Technical Services for specific design requirements or questions concerning proper detailing.

PICTURED: RamProof GC applied evenly across a concrete surface with a roller. RamProof GC is available in multiple grades including squeegee, roller, spray, and trowel-grade, depending on the project.

Precast Concrete

Precast concrete decks generally require a topping slab, as recommended by ASTM and most authorities. Consult a Barrett Technical Representative for applications over precast decks without a topping slab. Precast joint treatment will vary with prestressed and post-stressed T's, hollow core decks, and site conditions. Any joints that are uneven must be filled with cement-rich mortar and finished to provide a smooth transition from one plank to the next.

The joints are then stripped in, first with a 9-inch sheet and followed by a 12-inch sheet of PolyFelt 125VP polyester reinforcement fabric, both set in 60 mils of RamProof GC, that extends 4 inches beyond any mortar transition required by uneven joints. In cases where the mortar transition is wider than 6 inches, the stripping width shall be increased to extend a minimum of 3 inches beyond the mortar. Ensure that all joints are fully reinforced before the field of the deck is waterproofed.

CHANGE OF PLANE

Install a flashing of RamProof GC at all curbs, projections, walls, and other changes in plane prior to the field of the deck installation. Reinforce all flashings with **PolyFelt 125VP** polyester reinforcement or **RamFlash 327 HDR** uncured neoprene flashing depending on application. Install base flashings in accordance with applicable flashing details and requirements. The minimum required height is 3 inches, and the maximum is 30 inches. For heights more than 30 inches, consult a Barrett Technical Representative directly.

Flashings

Apply 60 mils of RamProof GC a minimum of 4 inches out onto the horizontal plane and a minimum of 4 inches up the vertical plane of the flashing. Immediately after material is applied, press a 6-inch wide sheet of **PolyFelt 125VP** polyester reinforcement or **RamFlash 327 HDR** uncured neoprene flashing (depending on application) into the material on the horizontal surface and embed it tightly into the cove, following up the vertical surfaces. Sheeting must be fully adhered, extending a minimum of 3 inches out on the horizontal plane and 3 inches on the vertical plane, and free of any wrinkles or fish-mouths. Bond laps in the sheet a minimum of 3 inches with 60 mils of RamProof GC.

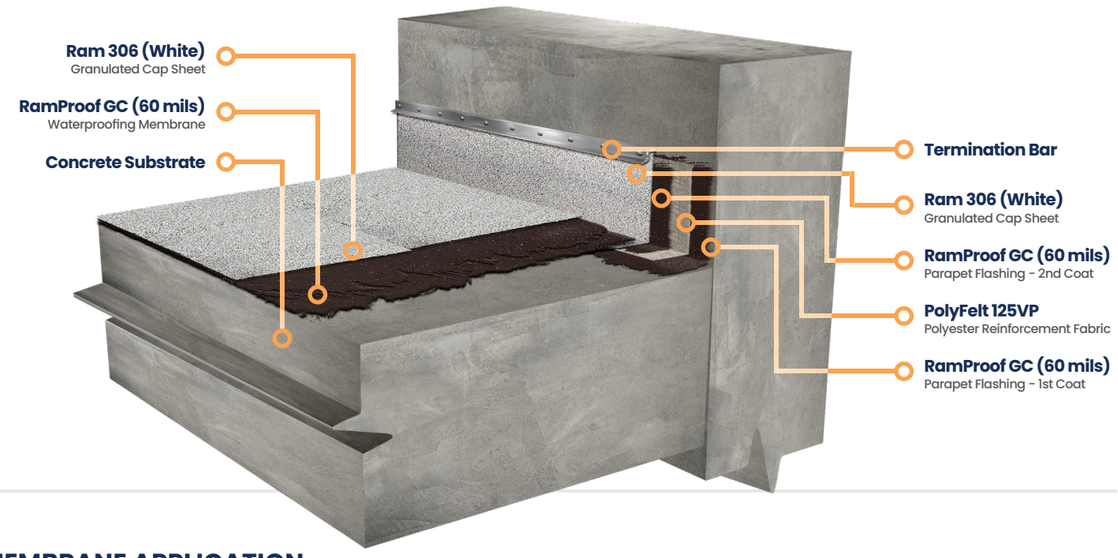
Using a roller or squeegee, apply 60 mils of RamProof GC over the entire assembly. The fabric must be tightly pressed into the cove area. Flashing with void space below it is unaccepted and must be cut and re-flashed. Install termination bar with appropriate fasteners on 8-inch centers. Seal the top edge of all flashings before the end of the day and provide metal counter flashing.

If detail of projections require Polymethyl Methacrylate, please refer to Barrett **Ram QuikFlash® PMMA** primer, fleece & membrane technical data sheets and installation instructions.

RamProof GC 60

APPLICATION INSTRUCTIONS

Single-Component Fluid-Applied Elastomeric Rubberized Asphalt Waterproofing System (60 mils)



MEMBRANE APPLICATION

Horizontal Application (10-Year Warranty)

RamProof GC is designed as a single-coat waterproofing application and can be applied at a rate of **60 mils,** or roughly **125 sq/ft** per 5 gal pail.

Starting at the low point of the deck, pour the mixed RamProof GC at a rate of 60 mils in a full and even line across the surface of the substrate. Spread the mixture evenly across the surface using a squeegee, roller, brush, or airless sprayer (spray pressure of 1300 to 1800 psi), depending on the grade of the material.

Vertical Application

Apply the mixed RamProof GC at a rate of **60 mils,** or roughly **125 sq/ft** per 5 gal pail, in a full and even line from top to bottom. Spread the mixture evenly across the surface using a squeegee, roller, brush, or airless sprayer (spray pressure of 1300 to 1800 psi), depending on the grade of the material.

For maximum coverage, apply using a two-coat technique; Apply the tack coat horizontally along the entire length of the wall/footer. Apply the second coverage coat vertically to the required mil thickness. This technique will help to optimize the coverage rate and ensure a uniform mil thickness. (For poured concrete walls, the maximum coverage rate is 40 sq/ft per gallon.)

To assure that sufficient membrane application is being achieved on a consistent basis, it is highly recommended that a thickness test be performed every hour.

Thickness Testing

To determine if the proper thickness is being obtained, check the mil thickness with a common mil gauge and record the location and results. If it is necessary to walk over the completed membrane prior to the installation of the protection course, use Barrett Roof Release agent spray to create a bond break.

PROTECTION COURSE

Horizontal Application

An approved material such as Barrett **Ram 200 Series** of sanded protection courses or Barrett **Ram 306** granular cap sheet shall be installed to provide protection for the membrane from placement of overburden and traffic by other trades.

Start application at the drains and install so that water flows over or with the laps, never against them. Provide 2-inch side-laps and 6-inch end-laps. Butt joints are not acceptable. Use RamProof GC as adhesive as required. Provide bleed out of RamProof GC at all side laps. Do not leave Ram 200 series protection course exposed for more than 60 days.

Backfilling

Backfilling can be completed immediately following application of RamProof GC. Use clean fill for backfilling. Avoid backfilling with sharp, angular rocks, any rocks bigger than a softball, and any materials that may puncture the waterproofing membrane. Backfill compaction shall meet ASTM requirements.

Membrane Testing

Completed membrane installation or sections will require an **Electronic Field Vector Mapping (EFVM) Test** conducted by an approved surveyor. Some applications may also require flood tested in accordance with ASTM D-5957. Allow RamProof GC to cure for at least 24 to 48 hours prior to membrane testing, depending on temperature and humidity. The test will be conducted over a period of 48 hours, as required by the designer. Any leaks discovered shall be repaired and the area retested. This test is a requirement with most warranty applications.

REQUIRED TOOLS & EQUIPMENT

Available to purchase from Barrett

- 6” and 10” squeegees
- 18” wood-backed, smooth edge squeegee (no teeth)

Purchase locally

- 2 Sawhorses
- Sheet of 3/4” Plywood
- Squeegee handles
- 4” & 9” paint rollers w/ extension handles
- 3” or 4” chip brushes
- Utility knife - hook & straight blades
- Ruler, hammer, brooms, etc.
- “Kiel”-type construction crayon
- Handheld leafblower (gas or electric)
- Nitrile or similar work gloves
- Empty 5 gal water pail for tool storage
- Naphtha (1 gal) for tool cleaning
- All currently required or recommended OSHA Safety Equipment

MATERIAL STORAGE

- Sheet goods should remain in the box and stored on pallets, covered with breathable canvas tarps.
- Keep sheet and pail goods out of sun in a cool place (55° F to 70° F). Shelf life is one year when properly stored.
- Temperature-controlled warehousing extends storage time of materials.
- Read and be familiar with the Safety Data Sheets (SDS) before using any materials.

10-YEAR 60 mils

MIAMI-DADE COUNTY APPROVED

ES ICC EVALUATION SERVICE®

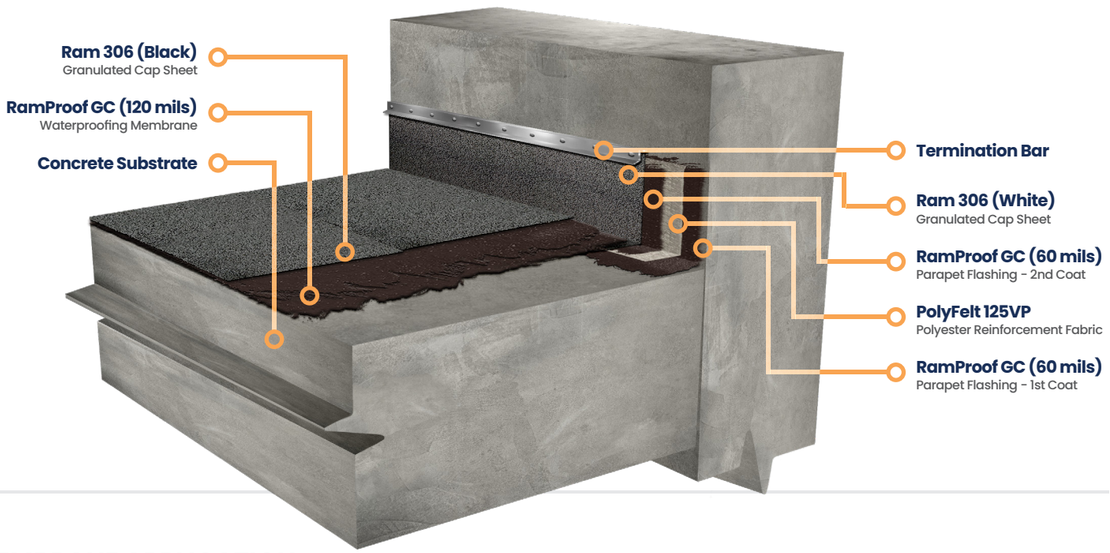
PRODUCT SAFETY INFORMATION

Barrett roofing and waterproofing products offer no unusual health or safety risks for products of this nature. As with any roofing and waterproofing installation process, proper ventilation, clothing and eye protection is important. For specific product information, contact The Barrett Company for a current Material Safety Data Sheets for any and all Barrett products. Obtain Material Safety Data Sheets from manufacturers whose materials may be used in conjunction with the Barrett waterproofing system. For installation safety information, consult the National Roofing Contractors Association (NRCA), the Occupational Safety and Health Administration (OSHA), and any other informed sources. The user should not assume that all safety measures are indicated or that other measures may not be required.

RamProof GC 120

APPLICATION INSTRUCTIONS

Single-Component Fluid-Applied Elastomeric Rubberized Asphalt Waterproofing System (120 mils)



MEMBRANE APPLICATION

Horizontal Application (20-Year Warranty)

For high-performance waterproofing applications, apply RamProof GC at a rate of **120 mils,** or roughly **65 sq/ft** per 5 gal pail.

Starting at the low point of the deck, pour the mixed RamProof GC at a rate of 120 mils in a full and even line across the surface of the substrate. Spread the mixture evenly across the surface using a squeegee, roller, brush, or airless sprayer (spray pressure of 1300 to 1800 psi), depending on the grade of the material.

Vertical Application

Apply the mixed RamProof GC at a rate of **60 mils,** or roughly **125 sq/ft** per 5 gal pail, in a full and even line from top to bottom. Spread the mixture evenly across the surface using a squeegee, roller, brush, or airless sprayer (spray pressure of 1300 to 1800 psi), depending on the grade of the material.

For maximum coverage, apply using a two-coat technique; Apply the tack coat horizontally along the entire length of the wall/footer. Apply the second coverage coat vertically to the required mil thickness. This technique will help to optimize the coverage rate and ensure a uniform mil thickness. (For poured concrete walls, the maximum coverage rate is 40 sq/ft per gallon.)

To assure that sufficient membrane application is being achieved on a consistent basis, it is highly recommended that a thickness test be performed every hour.

Thickness Testing

To determine if the proper thickness is being obtained, check the mil thickness with a common mil gauge and record the location and results. If it is necessary to walk over the completed membrane prior to the installation of the protection course, use Barrett Roof Release agent spray to create a bond break.

PROTECTION COURSE

Horizontal Application

An approved material such as Barrett **Ram 200 Series** of sanded protection courses or Barrett **Ram 306** granular cap sheet shall be installed to provide protection for the membrane from placement of overburden and traffic by other trades.

Start application at the drains and install so that water flows over or with the laps, never against them. Provide 2-inch side-laps and 6-inch end-laps. Butt joints are not acceptable. Use RamProof GC as adhesive as required. Provide bleed out of RamProof GC at all side laps. Do not leave Ram 200 series protection course exposed for more than 60 days.

Backfilling

Backfilling can be completed immediately following application of RamProof GC. Use clean fill for backfilling. Avoid backfilling with sharp, angular rocks, any rocks bigger than a softball, and any materials that may puncture the waterproofing membrane. Backfill compaction shall meet ASTM requirements.

Membrane Testing

Completed membrane installation or sections will require an **Electronic Field Vector Mapping (EFVM) Test** conducted by an approved surveyor. Some applications may also require flood tested in accordance with ASTM D-5957. Allow RamProof GC to cure for at least 24 to 48 hours prior to membrane testing, depending on temperature and humidity. The test will be conducted over a period of 48 hours, as required by the designer. Any leaks discovered shall be repaired and the area retested. This test is a requirement with most warranty applications.

REQUIRED TOOLS & EQUIPMENT

Available to purchase from Barrett

- 6” and 10” squeegees
- 18” wood-backed, smooth edge squeegee (no teeth)

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- 2 Sawhorses
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- Utility knife - hook & straight blades
- Ruler, hammer, brooms, etc.
- “Kiel”-type construction crayon
- Handheld leafblower (gas or electric)
- Nitrile or similar work gloves
- Empty 5 gal water pail for tool storage
- Naphtha (1 gal) for tool cleaning
- All currently required or recommended OSHA Safety Equipment

MATERIAL STORAGE

- Sheet goods should remain in the box and stored on pallets, covered with breathable canvas tarps.
- Keep sheet and pail goods out of sun in a cool place (55° F to 70° F). Shelf life is one year when properly stored.
- Temperature-controlled warehousing extends storage time of materials.
- Read and be familiar with the Safety Data Sheets (SDS) before using any materials.

20-YEAR 120 mils

MIAMI-DADE COUNTY APPROVED

ES ICC EVALUATION SERVICE®

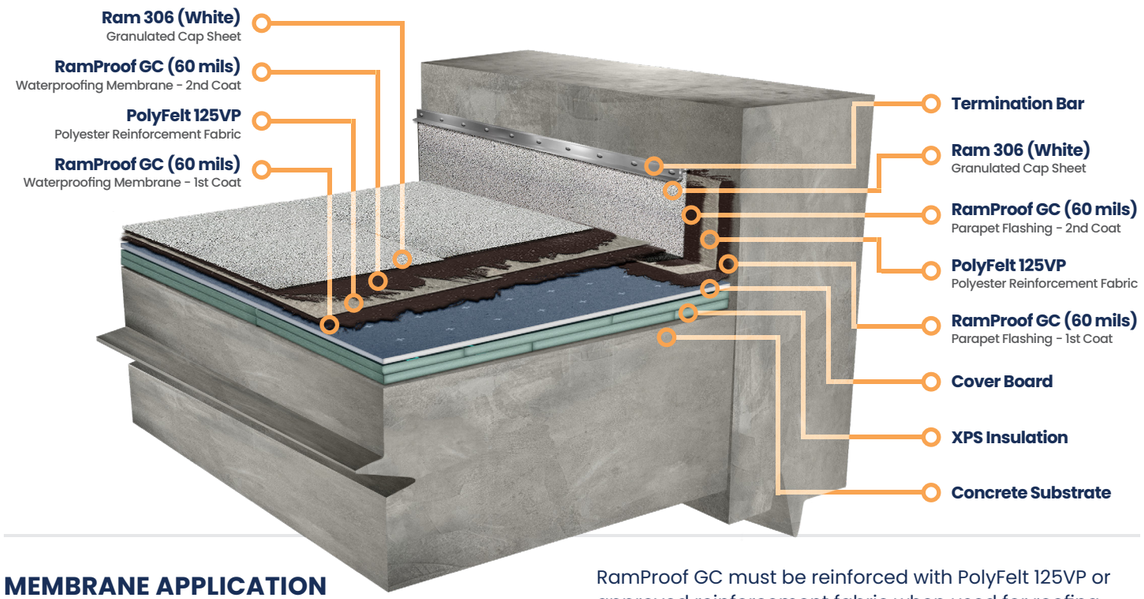
PRODUCT SAFETY INFORMATION

Barrett roofing and waterproofing products offer no unusual health or safety risks for products of this nature. As with any roofing and waterproofing installation process, proper ventilation, clothing and eye protection is important. For specific product information, contact The Barrett Company for a current Material Safety Data Sheets for any and all Barrett products. Obtain Material Safety Data Sheets from manufacturers whose materials may be used in conjunction with the Barrett waterproofing system. For installation safety information, consult the National Roofing Contractors Association (NRCA), the Occupational Safety and Health Administration (OSHA), and any other informed sources. The user should not assume that all safety measures are indicated or that other measures may not be required.

RamProof GC 120R

APPLICATION INSTRUCTIONS

Single-Component Fluid-Applied Elastomeric Rubberized Asphalt Reinforced Roofing System (120 mils)



MEMBRANE APPLICATION

Horizontal Application (20-Year Warranty)

For roofing and/or reinforced waterproofing applications, apply two coats of RamProof GC at a rate of **60 mils,** or roughly **125 sq/ft** per 5 gal pail, with a layer of reinforcement separating the membranes.

Starting at the low point of the deck, pour the mixed RamProof GC at a rate of 60 mils in a full and even line across the surface of the substrate. Spread the mixture evenly across the surface using a squeegee, roller, brush, or airless sprayer (spray pressure of 1300 to 1800 psi), depending on the grade of the material.

Standing off to the side, use a broom or squeegee to press one ply of **PolyFelt 125 VP** polyester reinforcement fabric into the RamProof GC material while it is applied. Take care not to create wrinkles or fish-mouths. If the sheet is not set straight and begins to run off a straight line, cut the roll and reset it, overlapping the end of the sheet by 12".

After the first layer of material and reinforcement has been installed, return to the same starting point and apply a second coat of RamProof GC at a rate of 60 mils, spreading the mixture evenly across the surface.

RamProof GC must be reinforced with PolyFelt 125VP or approved reinforcement fabric when used for roofing applications. Reinforcement can also be used for select waterproofing applications, though it is not required. Please consult a Barrett Technical Representative for project-specific recommendations.

Vertical Application

Apply the mixed RamProof GC at a rate of **60 mils,** or roughly **125 sq/ft** per 5 gal pail, in a full and even line from top to bottom. Spread the mixture evenly across the surface using a squeegee, roller, brush, or airless sprayer (spray pressure of 1300 to 1800 psi), depending on the grade of the material.

For maximum coverage, apply using a two-coat technique; Apply the tack coat horizontally along the entire length of the wall/footer. Apply the second coverage coat vertically to the required mil thickness. This technique will help to optimize the coverage rate and ensure a uniform mil thickness. (For poured concrete walls, the maximum coverage rate is 40 sq/ft per gallon.)

To assure that sufficient membrane application is being achieved on a consistent basis, it is highly recommended that a thickness test be performed every hour.

Thickness Testing

To determine if the proper thickness is being obtained, check the mil thickness with a common mil gauge and record the location and results. If it is necessary to walk over the completed membrane prior to the installation of the protection course, use Barrett Roof Release agent spray to create a bond break.

PROTECTION COURSE

Horizontal Application

An approved material such as Barrett **Ram 200 Series** of sanded protection courses or Barrett **Ram 306** granular cap sheet shall be installed to provide protection for the membrane from placement of overburden and traffic by other trades.

Start application at the drains and install so that water flows over or with the laps, never against them. Provide 2-inch side-laps and 6-inch end-laps. Butt joints are not acceptable. Use RamProof GC as adhesive as required. Provide bleed out of RamProof GC at all side laps. Do not leave Ram 200 series protection course exposed for more than 60 days.

Backfilling

Backfilling can be completed immediately following application of RamProof GC. Use clean fill for backfilling. Avoid backfilling with sharp, angular rocks, any rocks bigger than a softball, and any materials that may puncture the waterproofing membrane. Backfill compaction shall meet ASTM requirements.

Membrane Testing

Completed membrane installation or sections will require an **Electronic Field Vector Mapping (EFVM) Test** conducted by an approved surveyor. Some applications may also require flood tested in accordance with ASTM D-5957. Allow RamProof GC to cure for at least 24 to 48 hours prior to membrane testing, depending on temperature and humidity. The test will be conducted over a period of 48 hours, as required by the designer. Any leaks discovered shall be repaired and the area retested. This test is a requirement with most warranty applications.

REQUIRED TOOLS & EQUIPMENT

Available to purchase from Barrett

- 6" and 10" squeegees
- 18" wood-backed, smooth edge squeegee (no teeth)

Purchase locally

- 2 Sawhorses
- Sheet of 3/4" Plywood
- Squeegee handles
- 4" & 9" paint rollers w/ extension handles
- 3" or 4" chip brushes
- Utility knife - hook & straight blades
- Ruler, hammer, brooms, etc.
- "Kiel"-type construction crayon
- Handheld leafblower (gas or electric)
- Nitrile or similar work gloves
- Empty 5 gal water pail for tool storage
- Naphtha (1 gal) for tool cleaning
- All currently required or recommended OSHA Safety Equipment

MATERIAL STORAGE

- Sheet goods should remain in the box and stored on pallets, covered with breathable canvas tarps.
- Keep sheet and pail goods out of sun in a cool place (55° F to 70° F). Shelf life is one year when properly stored.
- Temperature-controlled warehousing extends storage time of materials.
- Read and be familiar with the Safety Data Sheets (SDS) before using any materials.

20-YEAR 120 mils

MIAMI-DADE COUNTY APPROVED

ES ICC EVALUATION SERVICE®

PRODUCT SAFETY INFORMATION

Barrett roofing and waterproofing products offer no unusual health or safety risks for products of this nature. As with any roofing and waterproofing installation process, proper ventilation, clothing and eye protection is important. For specific product information, contact The Barrett Company for a current Material Safety Data Sheets for any and all Barrett products. Obtain Material Safety Data Sheets from manufacturers whose materials may be used in conjunction with the Barrett waterproofing system. For installation safety information, consult the National Roofing Contractors Association (NRCA), the Occupational Safety and Health Administration (OSHA), and any other informed sources. The user should not assume that all safety measures are indicated or that other measures may not be required.

RamProof GC Waterproofing System

Product Comparison Guide

At Barrett, we believe that it is our responsibility to focus on what we do best—Using a decade's worth of extensive knowledge and hands-on experience to provide our customers the most superior waterproofing products on the market.

Service with expertise is the hallmark of every Barrett warranted project.

The assembly begins with choosing the correct Barrett system for the job based on the project & application requirements. Understanding the technical properties of each product is imperative when determining the ideal system, and the data below will help you find the right combination to ensure the utmost protection and performance for your next project.

PICTURED: RamProof GC is reinforced with Barrett **Ram 203** fiberglass-reinforced SBS-modified asphalt protection course, followed by a layer of approved drainage material and a concrete topping slab over the entire assembly.

		MEMBRANE	SEALANT	
		RamProof GC	KeeneSeal 100	RamProof Joint Sealant
PROPERTIES	Material	Elastomeric Rubberized Asphalt	Silyl-Terminated Elastomeric Polyether	Elastomeric Asphalt Emulsion
	Total Solids	62% ± 2%	100%	–
	Weight/Gal	8.1 lbs ± 3 lbs	–	–
	Application Temperature	20°F - 100°F	-75°F - 225°F	–
	Coverage	60 mils (20 sq ft/gal)	–	–
	Elongation	2000%	250%	–
	Tensile Strength	23 psi	287 psi	–
	Low Temperature Flexibility	>10 C (No Fracturing)	–	–
	Specific Gravity	1	1.55	–
	VOCs	0 g/l	>26 g/l	0 g/l
	Shelf Life	12 months	18 months	18 months
	Packaging	**5 gal Pail** (36 per Pallet) **55 gal Drum** (4 per Pallet)	**10.3 fl/oz Cartridge** (24 per case) **20 fl/oz Sausage** (16 per case)	**10.3 fl/oz Cartridge** (24 per case) **20 fl/oz Sausage** (16 per case)

		PROTECTION COURSE			CAP SHEET	
		Ram 200	Ram 201	Ram 203	Ram 306	Ram 306-FR
PROPERTIES	Material	SBS-Modified Asphalt	SBS-Modified Asphalt	SBS-Modified Asphalt	SBS-Modified Asphalt	SBS-Modified Asphalt
	Reinforcement	Polyester (Sanded)	Fiberglass (Sanded)	Fiberglass (Sanded)	Fiberglass (Granular)	Fiberglass (Granular)
	Thickness	118 mils	52 mils	86 mils	160 mils	160 mils
	Dimensions	39 in. x 33 ft.	36 in. x 107 ft.	39 in. x 49 ft.	39 in. x 33 ft.	39 3/8 in. x 32 5/6 ft.
	Weight	80 lbs	81.5 lbs	90 lbs	98 lbs	100 lbs
	Coverage	107 sq ft	321 sq ft	159 sq ft	107 sq ft	100 sq ft
	Elongation	29%	4.2%	3.7%	3%	3%
	Tear Strength	87 lbf (15.23 kN/m)	82 lbf (14.36 kN/m)	73 lbf (12.78 kN/m)	120 lbf (20.99 kN/m)	120 lbf (20.99 kN/m)
	Tensile Strength	98 psi	116 psi	41 psi	93 psi	93 psi
	Dimensional Stability	>0.5% (max)	>0.1% (max)	>0.1% (max)	>0.5% (max)	>0.2% (max)
	Low Temperature Flexibility	-26.11°C (No Fracturing)	-26.11°C (No Fracturing)	-26.11°C (No Fracturing)	-26.11°C (No Fracturing)	-18°C (No Fracturing)
	Packaging	**39" x 33' Roll** (30 per Pallet)	**36" x 107' Roll** (30 per Pallet)	**39" x 49' Roll** (30 per Pallet)	**39" x 33' Roll** (25 per Pallet)	**39" x 33' Roll** (25 per Pallet)

		DRAINAGE		FLASHING	
		RamDrain DD-025	RamDrain DD-050	Ram Flash 327 HDR	PolyFelt 125VP
PROPERTIES	Material	Cuspated Polystyrene	Cuspated Polystyrene	Uncured Neoprene Rubber	Non-Woven Spunlaid Polyester
	Reinforcement	Non-Woven Polypropylene	Non-Woven Polypropylene	–	–
	Thickness	250 mils	500 mils	60 mils	16 mils
	Dimensions	48 in. x 50 ft.	48 in. x 50 ft.	6-36 in. x 100 ft.	39.4 in. x 327 ft.
	Weight	36 lbs	36 lbs	25-132 lbs	22 lbs
	Coverage	200 sq ft	200 sq ft	50-300 sq ft	1,073 sq ft
	Elongation	–	–	305%	58%
	Tear Strength	65 lbf (11.38 kN/m)	65 lbf (11.38 kN/m)	136 lbf (23.8 kN/m)	136 lbf (23.8 kN/m)
	Tensile Strength	110 psi	110 psi	1887 psi	78 psi
	Dimensional Stability	–	–	–	–
	Low Temperature Flexibility	–	–	-40°C (No Fracturing)	-40°C (No Fracturing)
	Packaging	**48" x 50' Roll** (18 per Pallet)	**48" x 50' Roll** (12 per Pallet)	• 6" • 9" • 12" • 18" • 24" • 36"	**39.4" x 327' Roll** (25 per Pallet)

PROJECT

Ferrari of Long Island

Plainview, NY | 15,000 sq/ft

For over seven decades, Ferrari has embodied a legacy of excellence, seamlessly blending tradition with cutting-edge innovation to deliver unmatched performance in the automotive world. This enduring commitment to precision and progress set the tone for the construction of its premier dealership in Long Island.

To ensure the structure met the highest standards of durability and design, especially in the critical area of roof waterproofing, developers turned to a company with an even lengthier history and a shared dedication toward innovation, performance, and enduring quality.

For maximum performance and protection, Barrett recommended contractors utilize 120 mils of **RamProof GC (Green Concrete)** single-component, fluid-applied elastomeric rubberized asphalt roofing and waterproofing material for this 15,000 sq/ft application.

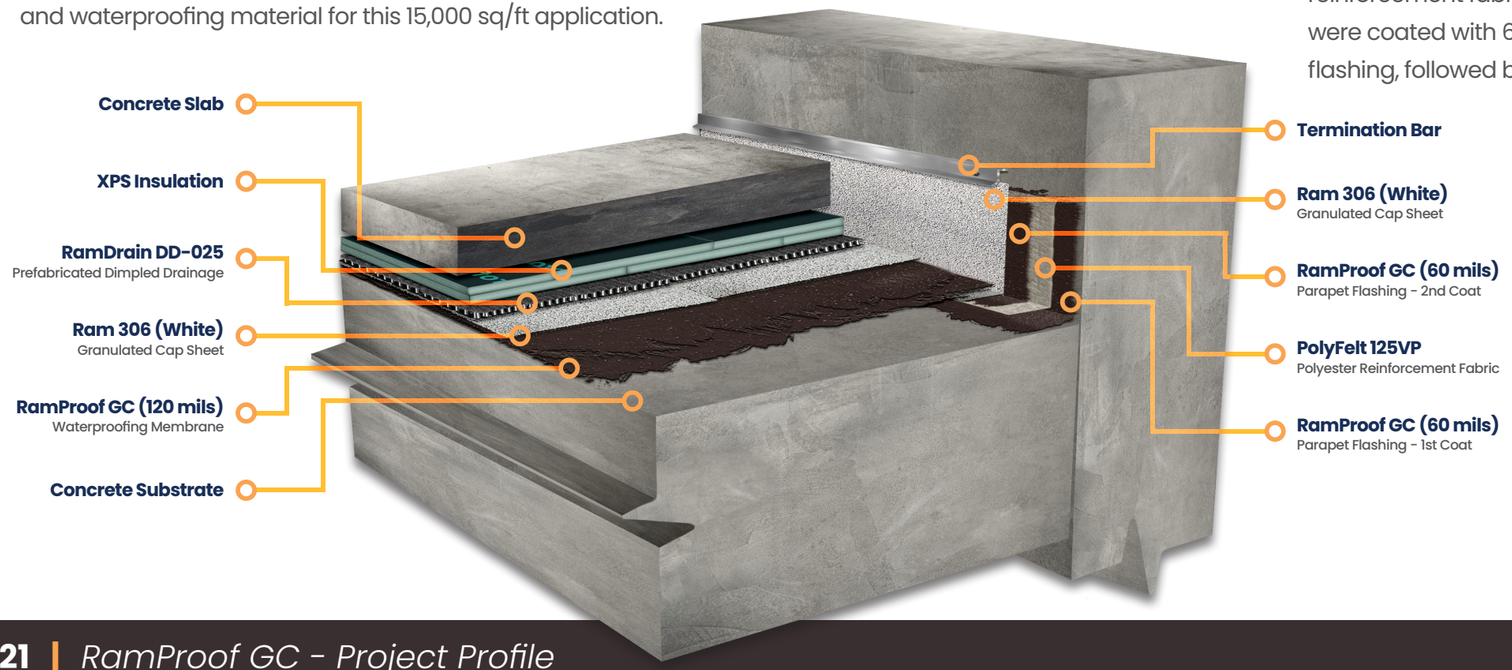
Location:
Plainview, NY

Job Size:
15,000 sq/ft

Product/System:
RamProof GC

Application Type:
Above-Grade Waterproofing

Warranty:
20-Year Warranty (Single-Source)



PICTURED: In addition to forming to a fully adhered, seamless, monolithic waterproofing membrane, RamProof GC is also used as an adhesive for all pipes, drains, and flashing. Its revolutionary asphaltic-rubber formulation combines the elastic properties of modified rubber with the weatherproofing & waterproofing characteristics of emulsified asphalt.

Topped with a **Ram 306** white granular cap sheet, the resulting asphaltic-rubber membrane provides a fully adhered monolithic waterproofing system that is VOC-free, environmentally friendly, and LEED certified. And like that of a Ferrari, it guarantees performance, speed, and quality.

Parapets were coated with 60 mils of RamProof GC reinforced with **PolyFelt 125VP** polyester reinforcement fabric, followed by a second 60-mil coat of RamProof GC. Similarly, all drains were coated with 60 mils of RamProof GC reinforced with **RamFlash 327 HDR** uncured neoprene flashing, followed by a second 60-mil coat of RamProof GC overtop the neoprene.

Once fully adhered, the Ram 306 is covered with **RamDrain DD-025** prefabricated dimpled drainage board, followed by a layer of insulation and a concrete slab. This assembly comes with a complete 20-Year Single-Source Warranty.

A national leader in the roofing and waterproofing industry since 1928, The Barrett Company has provided customers with hands-on experience and professionally engineered products. As with many before, Barrett's advanced roofing and waterproofing systems proved integral to delivering a high-performance solution worthy of the Ferrari name.

System Products

RamProof GC

Single Component Fluid Applied Elastomeric Rubberized Asphalt Waterproofing Membrane

RamProof GC (Green Concrete) is comprised of an industry changing asphaltic-rubber formulation that combines the elastic properties of modified rubber with the weatherproofing and waterproofing characteristics of emulsified asphalt. The resulting asphaltic-rubber membrane provides a complete, high-performance waterproofing membrane that is VOC-free, environmentally friendly, rapidly installed, and delivers a complete solution for the entire scope of waterproofing.

PolyFelt 125VP

Lightweight Spunbond Polyester Reinforcement Fabric

PolyFelt 125VP is a 16-mil lightweight thermally-bonded spunlaid non-woven polyester fabric reinforcement. PolyFelt 125VP can be installed as a reinforcement fabric between the first and second layers in RamTough 250 & KLB-100 applications.

Ram 201

Fiberglass Reinforced SBS Modified Asphalt Sanded Base Sheet

Ram 201 is a fiberglass-reinforced, polymer-modified asphalt sheet with sanded surfaces. The polymer modification provides exceptional elongation, elastic and cold temperature flexibility properties. The high strength polyester reinforcement gives the composite membrane excellent tensile strength, toughness, puncture and tear resistance that exceeds typical rooftop exposures. Ram 201 can be installed in hot asphalt bitumen or approved cold applied adhesives and mastics.

Ram 203

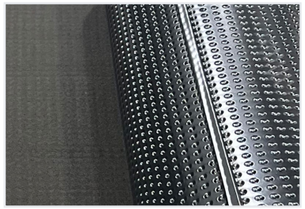
Fiberglass Reinforced SBS Modified Asphalt Sanded Protection Course

Ram 203 Membrane Protection Course is a multi-purpose SBS polymer-modified, fiberglass reinforced asphalt membrane with sanded surfaces, top and bottom The polymer modification enhances this products elongation, elasticicity, and flexibility. The fiberglass reinforcement gives the composite membrane the tensile strength and toughness necessary to accommodate moderate exposures. This medium-duty membrane is utilized as a protection course in hot or cold applied rubberized asphalt waterproofing applications like Barrett's RamTough 250 & Black Pearl®.

Ram 306

Polyester Reinforced SBS Modified Asphalt Granular Cap Sheet

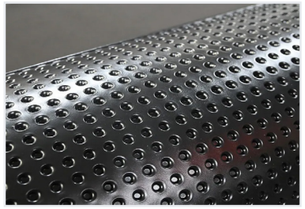
Ram 306 is an asphalt-applied, mineral-surfaced modified bitumen waterproofing membrane that offers strength, puncture resistance, and excellent low temperature flexibility, making it ideal for applications in climates with extreme temperature variations. Composed of high-quality SBS-modified asphalt, Ram 306 is reinforced with a high-strength fiberglass mat and a ceramic granulated surface, both of which give the membrane excellent UV protection. Ram 306 can be applied by using hot asphalt or by using any Barrett-approved elastomeric cold process adhesive.



RamDrain DD 025 (0.25")

Prefabricated Dimpled Composite Drainage Mat

RamDrain DD (Dimpled Drain) 025 is a high-performance two-layer drainage sheet that is engineered to relieve hydrostatic pressure by creating a channel for liquid water. The first layer is constructed of a high strength, cuspated (dimpled) polymetric sheet designed to provide superior compressive strength. Adhered to the high strength, cuspated polymer base is a nonwoven filter fabric. The non-woven spunbonded filter fabric is designed to promote high water flow while not allowing dirt and silt to penetrate the drainage channel.



RamDrain DD 050 (0.50")

Prefabricated Dimpled Composite Drainage Mat

RamDrain DD (Dimpled Drain) 050 is a high-performance two-layer drainage sheet with superior flow rate that is engineered to relieve hydrostatic pressure by creating a channel for liquid water. The first layer is constructed of a high strength, cuspate (dimpled) polymetric sheet designed to provide superior compressive strength. Adhered to the high strength, cuspated polymer base is a nonwoven filter fabric. The non-woven spunbonded filter fabric is designed to promote high water flow while not allowing dirt and silt to penetrate the drainage channel.

RamProof Joint Sealant™

Professional-Grade Premium Elastomeric Asphalt Emulsion Sealant

RamProof Joint Sealant™ is a professional grade elastomeric asphalt emulsion sealant developed for waterproofing, roofing, restoration, and corrosion protection industries. Designed to move with expanding and contracting surfaces, RamProof Joint Sealant™ forms a tough elastic membrane which bridges shrinkage cracks, resists the attack of fungus, mold, and bacteria, and maintains its superior properties when exposed to most chemicals. This eco-friendly, VOC-free, rapidly installed material provides a complete solution for all waterproofing repair applications.

KeeneSeal 100

Single-Component Multi-Purpose Elastomeric Sealant

KeeneSeal 100 is a one component, fast grab, multipurpose silyl-terminated polyether (hybrid) elastomeric sealant. When fully cured, this unique VOC compliant formula offers spectacular stress-free adhesion to PVC, concrete, masonry, painted surfaces, USB, plywood, metal, and other common substrates. This product is specifically formulated to offer all-weather performance to meet today's green building standards.

RamFlash 327 HDR

Heavy-Duty Uncured Neoprene Sheet Flashing

RamFlash 327 HDR is a 60 mil heavy-duty uncured neoprene flashing material to be used in conjunction with RamTough 250 and RamTough KLB-100. It is designed to be flexible and conform to irregular surfaces and shapes, curing in place after installation.

Resources

Literature

Want to learn more about our individual products? All detailed product info, including technical & safety data sheets, installation instructions, architectural details, and more are available for download in the **Resource Library** of our website.

For questions regarding detailed specifications, application information, or any other general inquiries, please reach out to your local Barrett Technical Representative. You can also call us directly at **(800) 647-0100** or email us at **info@barrettroofs.com**

Videos

The success of a roofing & waterproofing system is ultimately relient upon the accuracy of the installation.

To help ensure our applicators have the best resources available to ensure proper installation, Barrett has begun to develop a comprehensive **Video Library** with detailed, step-by-step instructions for each of our various systems.

All videos can be found on the **Videos** page of our website, as well as on our YouTube channel.

"RamProof GC Waterproofing System: Application Demo with Barrett Company Experts"
Presented by Craig Schaaf & Mike Eglin

Approved Applicators

Quality products deserve quality application. To get the best performance from our roofing and waterproofing systems, the smart choice is to use a **Barrett Approved Applicator.** Applicators that want to be approved by Barrett must be committed to installing our products properly & successfully.

For more information or to apply to become a Barrett Approved Applicator, visit the **Become an Approved Applicator** page in the Resource Library of our website.

Webinars & Presentations

The Barrett Company, in collaboration with Keene Building Products and Dependable Floor Prep, are proud to present the **"College of Knowledge,"** a series of AIA accredited courses taught through free-to-attend live webinars.

Each course offers in-depth analysis and live presentations on current industry information that will benefit architects, engineers, contractors, distributors, & manufacturers alike. For all attendees, there is an open Q&A session with the host immediately following each course.

— Available Courses —

Green Roofs
Presented by
The Barrett Company

Plaza Deck Waterproofing
Presented by
The Barrett Company

Sustainable Roofing
Presented by
The Barrett Company

Healthy Walls: Rainscreen & Ventilation
Presented by
Keene Building Products

Introducing...

The Foreman's Guide
For Roofing & Waterproofing

A monthly technical bulletin for architects, building owners, and applicators alike, **#TheForemansGuide** offers technical insight from experienced roofing & waterproofing applicators to ensure that every step of your project is carried out accurately, safely, and with the right tools for the job.

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- WATERPROOFING
- TRAFFICABLE DECK COATINGS
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