# GARLAND HIGH-PERFORMANCE MEMBRANES

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Innovative Products...Proven Protection

CALER AND AND FAST





# OUR HIGH-PERFORMANCE ROOF SYSTEMS OFFER CUSTOMERS THE MOST VALUABLE BENEFIT — LONGEVITY

We know about longevity because it's part of who we are. Garland has been doing business for more than 120 years. Garland has stood the test of time and our products will do the same.

Garland's roofing solutions employ sophisticated chemistry, quality raw materials, unique scrim design, and attractive surfacing options. With a wide range of options to choose from, Garland's high-performance membrane solutions accommodate any functional, aesthetic, building code or budgetary requirements.

### **CUSTOMIZED SOLUTIONS**

Garland Cap Sheets	Surfacing Options <sup>1</sup>	Application Options <sup>2</sup>
OptiMax <sup>®</sup>	S, M, A, R, V	CA, H
KEE-Stone <sup>®</sup>		CA, C, H
StressPly <sup>®</sup>	S, M, A, R, V	CA, H
StressPly Plus	S, M, A, R, V	CA, H
StressPly E	S, M, A, R, V	CA, H
StressPly EUV	S, M, WM, A, R, V	CA, H
StressPly SA	M, R	SA
StressPly IV	S, M, WM, R, V	Т
StressPly IV Plus	S, M, WM, R, V	Т
StressPly Max	S, M, WM, A, R, V	CA, H
Millennium®	S, M, A, V	CA*, HP, CP
VersiPly®	S, M, A, R, V	CA, H

<sup>1</sup>S=Smooth M=Mineral WM= Bright white mineral A=Aggregate (gravel) R=ENERGY STAR® qualified reflective coating V=Vegetative

<sup>2</sup> CA=Cold Asphalt-Based C=Cold Adhesive (non-asphalt) H=Hot Asphalt HP=Hot Coal Tar Pitch CP=Cold Coal Tar Pitch T=Torch SA=Self-Adhering (low-odor options)

\*Green-Lock Plus only (low-odor option)

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### WORKS HARDER, LASTS LONGER



Garland's products are time-tested and customer-approved. Garland was awarded its first patent nearly 100 years ago and continues to set trends in high-performance roofing and waterproofing today. For today's customers, that means reliability.

#### Why invest in advanced roofing technology and innovative products?

Because it pays. A system that works better and lasts longer is a smarter investment. To understand the true cost of an investment, the life-cycle cost should be examined – including required maintenance, energy cost savings and, most importantly, expected lifespan.

#### Do Garland products last longer?

Yes. For more than 120 years, we've perfected durability and we've pioneered new levels of longevity. Our success comes from unique chemistry and high-quality raw materials – chosen for strength in the face of moisture and temperature changes. We confidently offer 20-, 30- and even 40-year warranties.

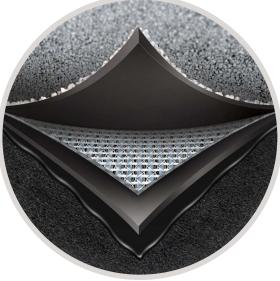
#### What makes Garland products so strong?

Puncture resistance, tear resistance, tremendous flexibility – even in low temperatures – and high tensile strength. We carefully select each element of a Garland membrane. With advanced polyester and fiberglass reinforcements as the backbone, our powerful products are tough enough to stand the test of time.

#### How do you monitor product quality and manufacturing?

We are particular about our products, which is why we manufacture our membranes ourselves. We are committed to quality – even beyond industry standards – which is why we created **GMAX** (Garland Manufacturing Attention to Excellence), a proactive quality assurance program. Our patented manufacturing processes are also independently monitored for compliance with ISO 9001 quality control procedures, which means reduced liability for customers.







### **UNDER STRESS,** LAYERS WORK BEST

#### 1. Deck

2. Air/Vapor Barrier Installed over a thermal barrier board

#### 3. Insulation

4. Recovery Board

#### 5. Adhesive

A variety of high-performance adhesives bond layers together

#### 6. Base Layer

Garland's underlayments incorporate fiberglass and/or polyester to meet strict performance requirements

#### 7. Cap Sheet & Surfacing

Garland's technologies produce strong, durable cap sheets to stand up to the elements and meet the aesthetic and functional requirements of any project



# **APPLICATION OPTIONS** FOR ANY JOB





#### **Cold-Process**

Odorless and low-odor products are user-friendly and offer great adhesion especially for sensitive applications. **Use:** Perfect for schools, hospitals and other situations where odor and fumes can be a concern

#### Hot Asphalt & Coal Tar Pitch

Time-tested hot asphalt and coal tar pitch provide super reliable and durable adhesion.

**Use:** Durable enough for applications where high levels of chemical or ponding water resistance are required

#### Torch

Fast installation and dependable adhesion on a variety of non-combustible structures.

Use: Ideal for hard-to-access roofs, like high-rise buildings

#### Self-Adhering

Installation is fast and easy with factory-applied adhesive and easy-to-remove release liner.

**Use:** Fast installation saves on labor costs; great for odor-sensitive areas like schools and hospitals

#### Roofing's Most Dependable Membrane

Garland formally introduced **StressPly®** in 1980 as the first high-performance modified bitumen roof system manufactured in North America. Nearly 40 years later, StressPly and its variations are still going strong. Its enduring legacy is due to StressPly's winning combination of SBS rubber modified formula (for exceptional low-temperature flexibility) and dual layers of fiberglass scrim (for durable strength that prevents rips and tears).

#### Industry's Only Modified Coal Tar Pitch Membrane

Our **Millennium®** series of premium modified coal tar pitch membranes were expressly developed to take advantage of the natural waterproofing properties of coal tar pitch. Millennium's polyester/fiberglass-reinforced SBS-modified coal tar membrane is the industry's only coal tar modified membrane and the only membrane in its class available with a factory-applied mineral surfacing.

#### Versatile and Reliable Membrane

**VersiPly**<sup>®</sup> is a high strength, fatigue resistant SBS-modified membrane. These membranes are reinforced with two layers of fiberglass, boasting tensile strength in excess of 200 pounds per inch. This strength makes VersiPly a fan-favorite among customers who are looking for long-term resistance to splits and tears.





### **EXTRAORDINARY** INNOVATION

#### World's First Thermoset Urethane Membrane

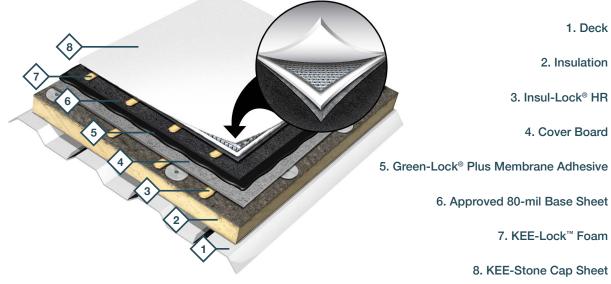
Garland's **OptiMax**<sup>®</sup> membrane was developed with innovative technology that combines asphalt and polyurethane to create the most durable and longest-lasting modified membrane on the market. Garland's ground-breaking modification process involves chemically locking the urethane to the asphalt. This chemical link prevents the oils within the membrane from "cooking out" over time, as is common with traditional modified membranes, and holds tight to surfacing for great mineral retention to protect the roof's surface. OptiMax is so durable that it carries our longest warranty – 40 years!

#### Thermoplastic Membrane in a Class of its Own

As the thermoplastic cap sheet in a hybrid roof system, **KEE-Stone**<sup>®</sup> combines flexible thermoplastic technology with the time-tested multi-ply roof design, blending the benefits of these familiar roofing technologies into one outstanding design. This unique membrane is formulated with the industry's best Ketone Ethylene Ester (KEE) which provides durability, strength and long-lasting performance. Unlike some KEE membranes, Garland's KEE-Stone is manufactured with high-quality KEE throughout the entire sheet – above and below the scrim – because the membrane is only as strong as its weakest point. Complete the versatile system with Garland's unique KEE-Stone Foam adhesive for cold applications, or use hot asphalt. KEE-Stone's UV-resilient properties are among the highest in the industry.

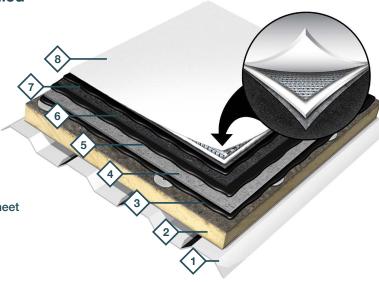


#### **KEE-Stone Cold Applied**



#### **KEE-Stone Hot Applied**

- 1. Deck
- 2. Insulation
- 3. Type III or IV Hot Asphalt
- 4. Cover Board
- 5. Type III or IV Hot Asphalt
- 6. Approved 80-mil Base Sheet
- 7. Type III or IV Hot Asphalt
- 8. KEE-Stone Cap Sheet





# THE FIRST LINE OF DEFENSE, SURFACING OPTIONS

Every building has a unique purpose and environment. We know that products must be chosen to match unique exposure conditions. With Garland modified systems – and a variety of coating and surface options – each roof can be customized to meet the performance goals of the building.

#### Coatings

- Pyramic® white acrylic elastomeric coating (ENERGY STAR® and CRRC rated)
- Solex<sup>®</sup> white water-based resin roof coating (ENERGY STAR<sup>®</sup> and CRRC rated)
- Silver-Shield® premium fibered aluminum coating (CRRC rated)
- Garla-Brite® non-fibered aluminum roof coating (ENERGY STAR® and CRRC rated)
- White-Star polyurea flood coat (ENERGY STAR® and CRRC rated)

#### Surfacing

- Sunburst<sup>®</sup> mineral surfacing (CRRC rated)
- GreenShield<sup>®</sup> vegetative surfacing
- Bright aggregate surfacing





#### **LEED Credits & Eco-Friendly Options**

Our coatings and surface materials have energy-saving benefits, too, through reflective and cool roof properties. Several of our options will garner points toward LEED<sup>®</sup> certification – the standard for high-performance, sustainable buildings.



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**R-Mer<sup>®</sup> Force** flashless edge metal system saves time, materials and money, while providing extremely strong edge protection. The unique design is anchored to exterior walls (instead of through the roof surface) and is attached with precise tension for a flawless appearance.

**R-Mer Edge metal edge products** (fascia, coping, extenders, gutters, downspouts, elbows, and scuppers) protect your roof perimeters while providing snap-on convenience and an architectural look that will enhance the appearance, as well as the performance, of your roofs.

**R-Mer wall panels** provide an integrated solution for your total building envelope. All Garland modified bitumen systems are functionally and aesthetically compatible with our wall panels. The R-Mer Wall-Pan family of concealed-clip vertical panels and the R-Mer Wall family of panels are available in aluminum or alloy-coated steel and a variety of colors.

**KEE-Stone® Flashing** is a multi-ply flashing system combining modified bitumen base sheets with Garland's KEE-Stone FB 60 Flashing membrane to form a strong, durable flashing system. The KEE-Stone flashing system accommodates both hot and cold applications, making it easy to install.

Accessories including penetration flashings, cant strips, cleaners, sealants and more are the perfect complement to a modified roof system. Our full line of accessories completes a high-performance roof installation, ensuring the entire building remains watertight.





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R-Mer Wall Panel

R-Mer Edge Coping



### **OUR BEST PRODUCT: SERVICE**

The layer that you can't see on a Garland high-performance roof is the hours of value-added assistance and the years of technical expertise behind each of our projects.

#### Your Garland Rep

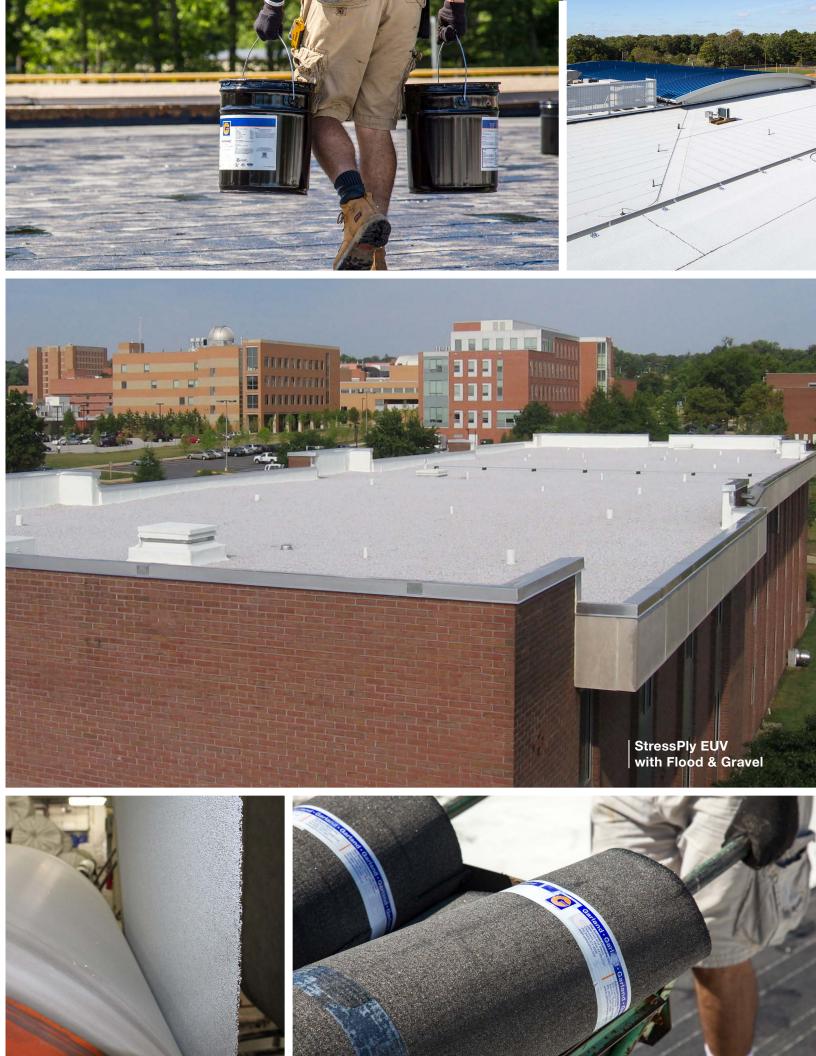
Each local Garland representative is an employee-owner and a source of value-added services. Our proven system is based on The Garland Blueprint, a comprehensive 12-step process designed to identify concerns, communicate clearly, and resolve issues effectively. Through this process, representatives confidently offer comprehensive on-site inspections, prioritization of budget requirements, assistance with design and custom details, preventive maintenance – and more!

#### **Engineering Services**

Garland's engineering team offers customized engineering of building envelope projects, specializing in roof and wall cladding applications. Get single-source support on everything from custom details to design load and wind-uplift calculations.

#### **RAMP<sup>®</sup>**

Our Roof Asset Management Program (RAMP) helps you evaluate, prioritize, and track multiple facility roof requirements. And it's all electronic, making on-demand management streamlined and easy.



#### **Over 120 Years of Building Envelope Experience**

With a history that spans more than 120 years, The Garland Company, Inc. has a long-standing reputation as a leading manufacturer of highperformance roofing and building envelope solutions. In addition to our expansive line of highperformance products, Garland offers a variety of services used in the design, implementation and maintenance of roof replacement, restoration, repair and new construction projects.

Founded in 1895, Garland has prevailed by remaining dedicated to our customers, continually developing innovative solutions to meet the ever-changing needs of a demanding market. The Garland network of employeeowner representatives are strategically located throughout the United States, Canada and the United Kingdom to provide responsible, integrated facility management specifically suited for your needs.

- Sustainable roofing solutions
- High-performance modified roof systems
- Fluid applied urethane and acrylic systems
- Architectural and structural standing seam metal roof systems
- Metal systems and accessories
- Rooftop maintenance and restoration products
- Preventive maintenance programs
- Roof-asset management services
- Design-build construction management
- Engineering services
- Flooring repair and restoration solutions
- Financing options

For more information, visit us at: www.garlandco.com

#### **The Garland Company, Inc.** 3800 East 91st Street Cleveland, OH 44105 FAX: 216-641-0633 Phone: 216-641-7500 Toll Free: 1-800-321-9336

#### . Garland Canada Inc.

209 Carrier Drive Toronto, Ontario Canada, M9W 5Y8 FAX: 416-747-1980 Phone: 416-747-7995 Toll Free: 1-800-387-5991 (Only in Canada)

#### The Garland Company UK, LTD

Second Way Centre, Second Way Avonmouth, Bristol UK BS11 8DF Phone: 011 44 1174 401050 (Outside UK) Toll Free: 0800 328 5560 (Only in UK)

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