

# GARLAND SUSTAINABLE SOLUTIONS

Responsible Design for Lasting Performance





# THE GARLAND COMMITMENT TO SUSTAINABLE DESIGN

Most design professionals agree that sustainable design is the right thing to do, for our planet and for our children. But realizing those aspirations requires partnering with material and service providers who understand how to achieve environmentally responsible solutions at a reasonable cost, while sustaining the highest level of building envelope performance. Garland is committed to making *the right thing* achievable for our public and private sector customers, and the architects and design professionals who serve them.



## COMPARATIVE ANALYSIS OF SUSTAINABLE SOLUTION BENEFITS

	Metal Roofs and Wall Systems	Long-Lived Modified Systems	Reflective Coatings	Restoration Systems/ Maintenance Solutions
<b>LEED® Point Potential</b>	Better	Better	Better	Good
<b>Energy Savings</b>	Better	Better	Best	Good
<b>Recycled Content</b>	Best	Best	Good	Good
<b>Biobased Content</b>	n/a	Best	Good	Better
<b>Eco-Related Approvals</b>	Better	Best	Best	Better
<b>Expected Service Life</b>	Best	Best	Better	Better
<b>Manufacturing</b>	Best	Better	Good	Good
<b>Recyclability</b>	Best	Good	n/a	n/a
<b>Manufacturing Location(s)</b>	Best	Better	Better	Better
<b>Aesthetic Appeal</b>	Best	Better	Better	Better



Understanding that extended service life is the Holy Grail of sustainable building design, Garland offers lasting high-performance solutions in every material category. Beyond longevity, our comprehensive offering includes materials that address every attribute of sustainable design, from energy-saving to cradle-to-grave resource conservation.



**GreenShield®**  
Vegetative System reduces stormwater runoff.

Vegetative Solutions	Vapor Barriers	Rainscreens	Solar Solutions
Best	Good	Better	Best
Better	Better	Better	Best
Better	Good	Best	n/a
Best	Good	n/a	n/a
Better	Good	Better	Better
Best	Best	Best	Best
Better	Good	Best	Good
Better	n/a	Best	Good
Better	Better	Best	Good
Best	Better	Best	Good

## THE LONG-TERM BENEFITS OF HIGH-PERFORMANCE BUILDING SOLUTIONS

According to a recent World Green Building Council report *The Business Case for Green Building*<sup>1</sup>, “While there can be additional costs associated with building green as compared to a conventional building, the cost premium is typically not as high as is perceived.”

After thoroughly evaluating cost-to-benefit ratios in four major areas (Asset Value, Operating Costs, Workplace Productivity and Health, and Risk Mitigation) the study concluded: “Research shows that building green does not necessarily need to cost more, particularly when cost strategies, program management and environmental strategies are integrated into the development process right from the start.”

Although the value proposition is most dramatic with new construction, there is an “overall trend towards the reduction in design and construction costs associated with green building.” The study concludes: “Upfront cost increases in green buildings are often offset by a decrease in long-term life-cycle costs.”

<sup>1</sup>*The Business Case for Green Building: A Review of the Costs and Benefits for Developers, Investors and Occupants.*



**R-Mer® Span**  
Structural Standing Seam  
is 100% recyclable at the  
end of its life cycle.

## **BUILDING LIFE-CYCLE IMPACT REDUCTION**

The Leadership in Energy & Environmental Design (LEED®) Green Building Rating System™ is a voluntary consensus-based standard for developing high-performance, sustainable buildings. Launched by the U.S. Green Building Council (USGBC), LEED represents a continually evolving, integrated design approach guiding the design community's efforts to develop sustainable buildings through:

- Building Life-Cycle Impact Reduction
- Material Disclosure and Optimization
- Material Ingredient Reporting, including; Local Sourcing
- Avoidance of Chemicals of Concern

## ENDURE, EXTEND



**Pyramic®**  
Reflective Coating  
reduces your buildings  
heat gain.



**R-Mer® Shield**  
Metal Roof and Wall System  
provides unrivaled wind uplift  
performance.



**Green-Lock®**  
Membrane Adhesive  
provides a tenacious  
bond without harmful  
solvents.



**Rainscreens**  
Insulated Wall Panel System  
will prevent moisture intrusion  
into your building.



**White-Knight®/  
White-Stallion® Plus**  
Restoration System  
reflects more than 80% of the  
sun's rays.



**Solar**  
Rooftop System  
generates energy without  
compromising rooftop  
performance.

Garland's building envelope solutions are designed to provide extended service life and therefore reduce the impact on the environment. By increasing the amount of time between roof replacements, high-performance building solutions significantly reduce landfill waste as well as the time, disruptions, and costs associated with more frequent replacement. To help you make the right decision and determine your return on investment, Garland offers life-cycle cost evaluations for both individual systems and complex integrations. Whether your public or private sector building projects require new construction, renovation, or a proactive preventive maintenance program, Garland can help ensure your buildings' roofs, walls, and below-ground surfaces remain watertight, while optimally contributing to your vision for a sustainable future.



**StressPly® EUV Membrane & Pyramic®**  
Modified Bitumen Membrane & Reflective Coating  
will reduce your energy costs.

# REUSE, RECYCLE, RENEW



Post-consumer scrap from recycled tires. Pre-consumer boiler slag. Post-consumer glass bottles. Rapidly renewable soy-based oils, bio-based resins, even crushed sea shells. Garland offers a wide number of building material solutions incorporating recycled and/or rapidly renewable materials, as well as solutions that are, in themselves, 100 percent recyclable.



The Garland Greenhouse® product line was designed to better equip our customers in identifying sustainable alternatives to existing technology. Garland Greenhouse products incorporate one or more of the following characteristics: pre-consumer recycled content, lowered volatile organic content (VOC), bio content, highly reflective surfacing, novel technology and/or post-consumer recyclability.

## Our Garland Greenhouse product line includes:

- Modified membranes in a variety of strengths, surfacings, and configurations
- A complete range of metal roof and wall systems
- Reflective and restoration coatings
- Flashing, membrane, insulation, and structural adhesives
- A family of vegetative roofing solutions



Local purchasing has become a sustainable issue primarily due to the energy consumed in the transportation process. Garland manufacturing facilities are located in the Northeast, Southwest, Southeast, and on the West Coast, making it easy for you to earn local sourcing credits for a comprehensive selection of building envelope solutions.



**StressPly® Max Membrane**  
Modified Bitumen Membrane and  
White Mineral boasts incredible strength  
and long-term waterproofing protection.

## MATERIAL DISCLOSURE AND OPTIMIZATION

Material Disclosure and Optimization combines into a single credit for the use of Rapidly Renewable Materials and Recycled Content, as well as general Material Reuse and the use of Regional Materials.

This category provides designers and building owners with a wide spectrum of possibilities for increasing their level of LEED certification. More importantly, it provides a strong incentive for manufacturers to integrate the concepts of reuse, recycle, and renew into an ever wider array of material solutions.





## CERTIFY, VALIDATE

Garland invests significant resources into product research and development, including in-house and third-party testing, to ensure our materials meet or exceed industry standards for sustainable design and other aspects of performance.



Garland offers dozens of materials capable of contributing to LEED certification, including modified membranes, metal roof and wall systems, roof coatings, vegetative systems, and a variety of adhesives.



The Cool Roof Rating Council (CRRC®) provides product rating information using accurate and credible third-party methods for evaluating and labeling the solar reflectance and thermal emittance of building materials. Garland offers bright white coatings, non-fibered aluminum coatings, fibered aluminum coatings, and a variety of mineral surfacings that have been CRRC rated.



**Environment**

UL Environment develops environmental and sustainability standards for a wide range of building products, consumer products, and organizations. Garland was the first (and remains the only) membrane manufacturer to offer high-performance modified roof systems with third-party UL Environment validation for their recycled and bio-based contents.



ENERGY STAR® is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy. Our ENERGY STAR qualified products include several metal finishes; white reflective coatings, including restoration coatings; and white reflective mineral surfacing materials.



California's Title 24 is a regional specification that is sometimes adopted by other states, provinces, or cities desiring more stringent energy-reduction standards. Garland offers metal finishes, white and aluminum coatings, mineral-surfaced modified systems, and a restoration system that are compliant with Title 24.



ASHRAE® is a building technology society dedicated to the advancement of the arts and sciences in relation to heating, ventilating, air conditioning, and refrigeration. Garland, in partnership with leading manufacturers of energy control solutions, offers comprehensive energy audits to help optimize energy conservation for the total building envelope.



## MATERIAL INGREDIENT REPORTING

The Material Ingredient Reporting LEED credit was introduced to increase the transparency and accountability of products marketed as environmentally responsible.

**StressPly® IV Plus UV Mineral**  
Modified Bitumen Membrane  
provides UV protection and added  
energy savings.

## THE NEXT HORIZON



Garland has been partnering with the design community and facility owners to extend the waterproofing performance of commercial building exteriors for over a century. As a leader in the manufacture and distribution of high-performance building materials, Garland pioneered the use of vegetative solutions in North America in the early 1990s. We were the first U.S. roofing material manufacturer to:

- Introduce long-lived modified bitumen systems to the commercial roofing market
- Use uniquely woven scrims and polymer blends to extend membrane life
- Offer low-slope insulated steel roofing panels
- Become ISO 9000 certified
- Incorporate recycled crumb rubber into our membranes
- Achieve UL Environment certification
- Develop a 100 percent VOC-free installation solution, from deck to top coat, for modified bitumen systems

Our locally-based representatives receive several hundred hours of classroom and field training, and are provided opportunities for continuing education along with a variety of leadership development programs to keep them, and their customers, at the leading edge of sustainable technologies.



## LOCAL SUPPORT, TODAY AND TOMORROW

With over 200 representatives across the U.S., Canada, and the U.K., Garland offers seamless support, process consistency, and technical services, whether you are designing a single facility or implementing a high-performance building philosophy across multiple buildings and geographies.

We offer the design community opportunities for AIA and LEED accredited education.



## 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 high-performance roofing and building envelope solutions. In addition to our expansive line of high-performance 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 employee-owner 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 roofing and built-up systems
- Fluid applied urethane and acrylic systems
- Architectural and structural standing seam metal roof systems
- Metal wall panel systems and accessories
- Rooftop maintenance and restoration products
- Preventive maintenance programs
- Computerized 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](http://www.garlandco.com)

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