



Roofing System Profiles

Real-World Case Studies for Specifiers

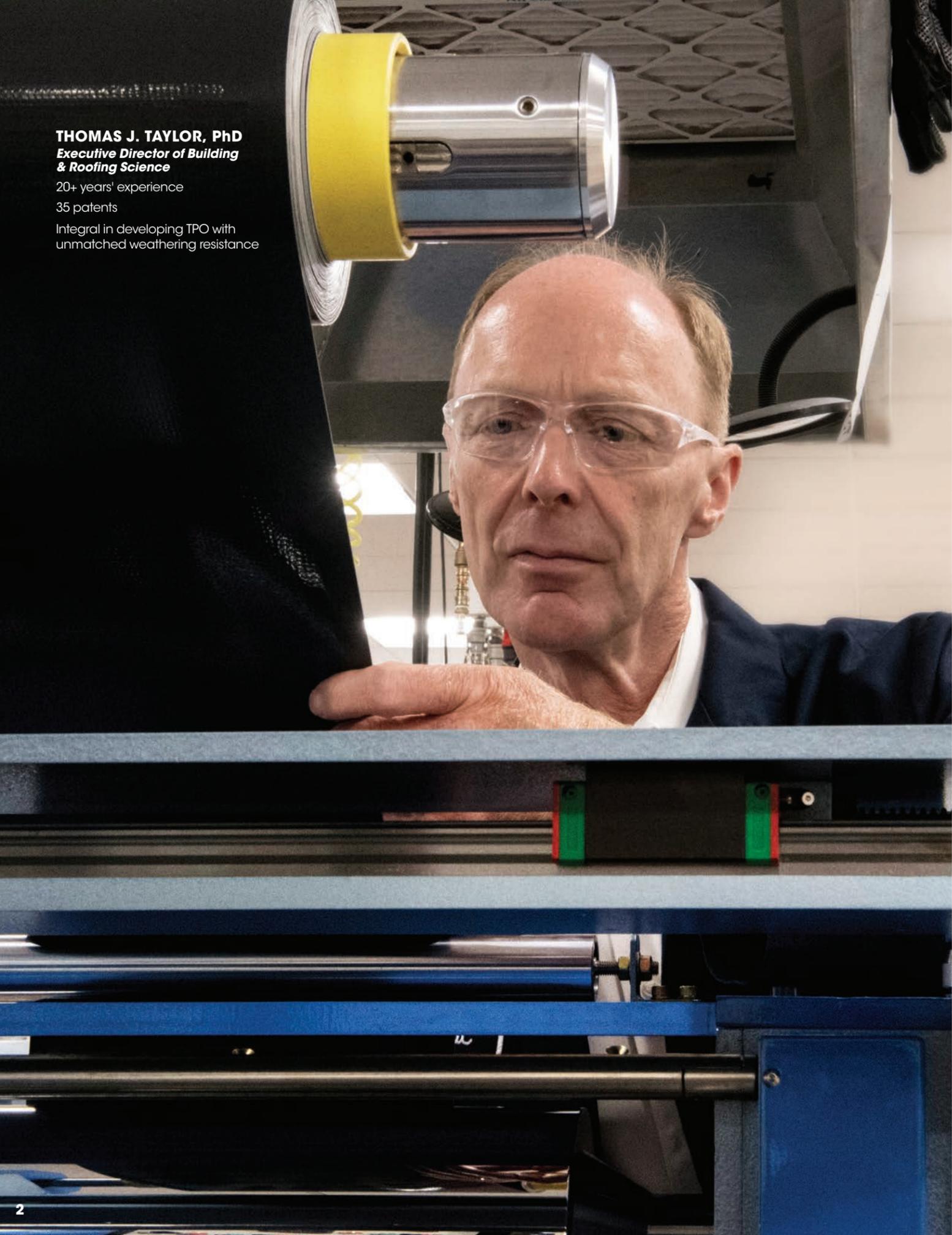


Texas A&M University

From universities to corporate headquarters, GAF has a versatile solution for every roofing challenge. The proof is in the profiles.



We protect what matters most™

A photograph of Thomas J. Taylor, PhD, in a laboratory setting. He is wearing safety glasses and a dark blue suit jacket over a white shirt. He is looking intently at a piece of black material being processed by a machine. The machine has a yellow roller and a silver cylindrical component. The background shows a grid-like ceiling and other laboratory equipment.

THOMAS J. TAYLOR, PhD
*Executive Director of Building
& Roofing Science*

20+ years' experience

35 patents

Integral in developing TPO with
unmatched weathering resistance

GAF Offers You Comprehensive Support — Every Step Of The Way.



Collaboration Partner

Choosing the right roofing system starts with choosing the right roofing company. As North America's largest roofing manufacturer, our broad product offering means we're not vested in a single technology. And as an AIA Collaboration Partner, our priority is helping you select the roofing system that's right for your application.

We invite you to use this quick-reference guide to identify key GAF materials and resources. For more comprehensive product details, our GAF Architectural Information Services (AIS) Team is ready to assist you with any phase of the specification process. Find out more about the AIS Team on the next page.

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ADEM CHICH
*R&D Executive Director –
Asphalt Roofing Systems,
Coatings, and Underlayments*

31+ years' experience
24 patents

Integral in the development of
DeckArmor™ and Tiger Paw™
Roof Deck Protection



GAF Teams Dedicated To Your Success

As part of our commitment to specifiers, GAF offers a variety of tools and services to make your job easier. From design assistance to specification and detail preparation, and from quality assurance inspections to programs that help you build your practice, GAF is dedicated to your success. Contact us for one-on-one service or explore the self-service options through the Architects and Specifiers portal at gaf.com.

gaf.com

The GAF website contains technical data and information on both low- and steep-slope products. Information can be viewed or, in many cases, faxed or e-mailed to you, at your request directly from our website.

GAF Architectural Information Services (AIS) Team

The (AIS) team is ready to assist you with the entire specification process. AIS works closely with local GAF salespeople, as well as with Technical and Field Services, to help you specify a GAF roofing system. Services include:

- **Design Lines** — Master Guide Specification preparation where GAF may be considered Basis of Design
- **Cut Specs** — A one-page abbreviated overview that puts your roof system design in an easy-to-understand format
- **Submittal Express** — Information necessary for submittal preparation including SDS, data sheets, master specs, and samples
- **Phone Support** — Big companies can be challenging to navigate. AIS helps take the worry out of understanding who does what and helps translate roofing practice into GAF requirements for guarantee issuance

Call 1-800-522-9224 or visit AIS on gaf.com for assistance.

Custom Details

Technical Services is available to assist with standard and custom details for all the projects you're working on. Contact them at customdetails@gaf.com.

Full-Time Field Services Team

The GAF Field Services Team is a nationwide team which includes Registered Roof Consultants and Registered Roof Observers. They can provide support for design questions, installation techniques, roofing conditions, or any other roofing concern. They're specially trained to help prevent problems before they happen.

Tapered Design & Detail Design

GAF also provides customized solutions for tapered design projects and custom detail

drawings that can help reduce material costs and waste through precise layouts and material calculations, and include fast turn-around times for imminent bid dates. Easy-to-read AutoCAD-generated shop drawings can be provided for a hassle-free installation. Call 1-800-766-3411 or email TDG@gaf.com.

Sustainable Design

Our team is focused on making green codes, green rating systems, and sustainable design more accessible and easier to in-corporate into your project. Depending upon your needs, we can connect you with our on-staff LEED® Accredited Professionals, submittal tools and energy calculators at Green Roof Central (gaf.com/green), and/or a GAF contractor who is a member of the Sustainable Roofing Council (SRC). GAF also publishes Health Product Declarations and Environmental Product Declarations, which can be found at gaf.com/green.

Live Technical Hotline

Call the GAF Technical Services Hotline (1-800-ROOF-411) to have your technical questions answered live. Our experienced technical support staff can address questions regarding installation, codes, product approvals, roof system details, and more.

Tools for Specifiers

Through innovative use of digital technology, GAF makes it easier for professional roof consultants, specifiers, architects, building owners, facility managers, and professional purchasing managers to select the most appropriate roofing system for their specific needs.

Architectural resources:

Benefit from an entire team devoted to assisting with the design and specification process. Our priority is helping you find a roofing system that meets your needs with a variety of tools and services to make your job easier.

Architectural Information Services:

1-800-522-9224 or ais@gaf.com

- The revolutionary web-based roof-evaluation software program **GAF Roof Advisor™**, gaf.com/RoofAdvisor, focuses the roof-selection process into a short series of essential questions. Based on the responses, it generates a detailed list of recommended roofing materials and attachment options, along with informative links on the proposed solutions

Note: GAF does not practice architecture or engineering. Information provided by GAF is intended to assist the specifier in creating a specification appropriate for a specific project.

Note: LEED® — an acronym for Leadership in Energy and Environmental Design™ — is a registered trademark of the U.S. Green Building Council.



CASE STUDY

GAF World Headquarters, Parsippany, NJ

Architect: Nelson & Associates
Contractor: ARCO Construction Inc. — arcoroof.com
Job Size: 130,000 square feet **Completion Date:** December 2014

When GAF moved to a new corporate headquarters at 1 Campus Drive in Parsippany, NJ, the building it was moving into had a ballasted EPDM roof with XPS and EPS insulation. As a roofing manufacturer, GAF wanted the best-performing commercial roof available, so the company replaced the old roof with the best products on the market. The new roof includes RUBEROID® HW 25 Smooth Membrane as a vapor retarder, EnergyGuard™ Polyiso Insulation, and EnergyGuard™ HD Cover Board, topped with EverGuard Extreme® Fleece-Back TPO Membrane. GAF 2-Part Roofing Adhesive was used to fully adhere

the TPO to provide superior wind uplift performance. When using EverGuard Extreme® Fleece-Back TPO Membrane with GAF 2-Part Roofing Adhesive, the fleece on the back of the membrane provides an added cushioning layer.

As part of the GAF commitment to sustainable roofing choices, GAF recycled the old EPS and XPS insulation and the worn-out EPDM membrane, and even removed the ballast during the re-roof. This material will be re-purposed in many ways — for crumb rubber, warehouse insulation, and other applications.

LEED® Certification
 To achieve the LEED® Resilient Design Pilot credit IPpc98, building owners must assess and successfully plan for a wide range of natural disasters such as flooding, tornados, high winds, and earthquakes. There are several aspects of the GAF building design that lead to this designation, including flood preparation and backup capabilities that allow GAF to continue operations and customer service in the face of disaster and long-term outages. In addition, the roof is rated above local code requirements, and is topped with EverGuard Extreme® TPO and EnergyGuard™ Polyiso.

Note: LEED® — an acronym for Leadership in Energy and Environmental Design™ — is a registered trademark of the U.S. Green Building Council.

Challenge: Find A TPO Membrane That...

- Performs the best in the industry
- Can be used for both new construction and re-roofing
- Has high wind uplift ratings
- Can be installed in cold weather
- Has VOC-compliant options
- Enhances roof aesthetics
- Can be installed in a variety of systems to overcome most design challenges

Solution: EverGuard Extreme® TPO & EverGuard® TPO

Performance

- Best-performing overall TPO and best-performing standard TPO in accelerated aging in the largest independent TPO study ever conducted (visit TPOResults.com for complete results for the major brands)
- Best overall value for price and performance
- Withstands higher heat and UV exposure than any membrane in the industry (EverGuard Extreme® TPO)
- Up to a 35-year guarantee* — the best in the industry

Versatility

- Available in a variety of thicknesses and systems that can fit most budgets
- Different systems available, including mechanically attached, fully adhered, and RhinoBond® to best fit design challenges
- Available in fleece-back to provide additional benefits, including:
 - Can be installed using a variety of adhesives that can reduce installation time by 50%

- Doesn't require a slip sheet when re-covering over a variety of roofs
- Provides enhanced puncture resistance

Energy Savings

- Highly reflective membrane provides greater energy savings
- Use the CREST calculator at cool.gaf.com to see how much you can save

Sustainability

- GAF Sustainable and Resilient Product include:
- GAF has 8 Declare labels and the only roofing system that has earned the Declare label.
 - HPDs — Publishes Health Product Declarations (HPDs) for transparent reporting and LEED® v4 compliance
 - EPDs — Publishes Environmental Product Declarations (EPDs) for single-ply roofing membranes

Note: LEED® — an acronym for Leadership in Energy and Environmental Design™ — is a registered trademark of the U.S. Green Building Council.
 *See applicable guarantee for complete coverage and restrictions.

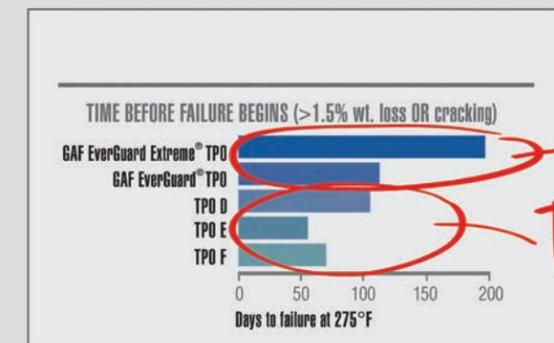
Product Spotlight



EVERGUARD EXTREME® TPO DELIVERS ADVANCED PROTECTION

- EverGuard Extreme® TPO is the overall best-performing TPO you can buy for your property
- Uses a proprietary formulation of stabilizers and UV absorbers to achieve performance levels far beyond current roofing standards
- Available in a variety of thicknesses and can fit most budgets

- EverGuard Extreme® 50 mil and 70 mil have virtually the identical weathering characteristics as our standard 60 mil and 80 mil versions
- Can withstand higher heat and UV exposure better than any membrane in the industry
- The best-performing TPO in accelerated aging in the largest independent TPO study ever conducted
 - Go to TPOResults.com to see the results of the largest independent TPO study ever done



Us
Them



Challenge: Find PVC that...

- Offers many of the same performance advantages as TPO including heat-weldable seams, a highly reflective surface, and wider rolls
- Stands up better to grease, oil, and other chemicals compared to other material

Solution: EverGuard® PVC

Performance

- Best choice membrane to stand up to grease, oil, and chemicals
- Available in up to a 25-year guarantee*

Versatility

- Available in a variety of thicknesses and systems
- Different systems available, including mechanically attached, fully adhered, and RhinoBond® to best fit design challenges
- Available in fleece-back to provide additional benefits, including:
 - Can be installed using a variety of adhesives

- that can reduce installation time by 50%
- Doesn't require a slip sheet when re-covering over a variety of roofs
- Provides enhanced puncture resistance
- Complete line of prefabricated accessories available to help make installation of details more reliable and faster

Energy Savings

- Highly reflective membrane provides greater energy savings
- Use the CREST calculator at cool.gaf.com to see how much you can save

*See applicable guarantee for complete coverage and restrictions.

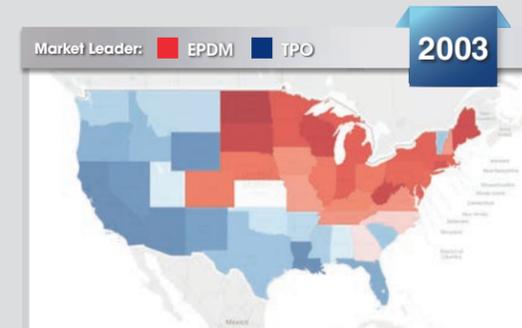
Benefit Spotlight



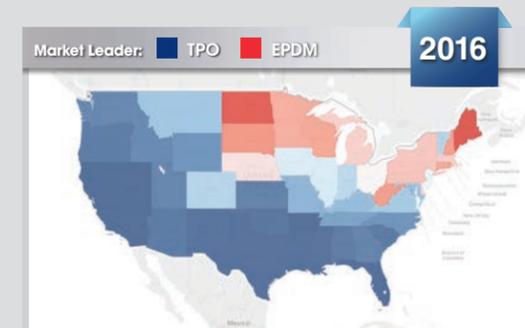
ENERGY SAVINGS: COOL ROOFS ARE CHANGING THE ROOFING INDUSTRY

Commercial buildings are benefiting from cool roof savings throughout the USA, even in northern climates, and that is fundamentally shifting the roofing marketplace. For example:

EPDM was the most popular single-ply membrane in the industry in 2003; today, TPO makes up over 50% of the single-ply market. To learn more, visit www.gaf.com/coolroofs.



Source: SPRI



Source: SPRI



Try our CREST Energy Calculator

Designed specifically for architects, contractors, consultants, and building owners, CREST helps compare the energy-cost savings of different roofing system options. You can compare multiple roof designs and scenarios including levels of reflectivity and insulation. Simply go to cool.gaf.com and register and compare. It's free and easy.



CASE STUDY 1

InterContinental Buckhead Atlanta Hotel, Atlanta, GA

Architect: Thompson, Ventulett, Stainback & Associates **Roofing & Waterproofing Consultant:** Williamson & Associates **General Contractor:** DPR Hardin Construction (formerly Hardin Construction)
Contractor: Tip Top Roofers, Inc. — tiptoproofers.com **Building Owner:** InterContinental Hotels Group
Job Size: Three buildings, approximately 150,000 square feet **Completion Date:** October 2003

New construction of this 4 1/2-star flagship hotel complex consisted of a 22-story/422-guestroom tower, a two-story retail building, and the largest ballroom (12,000 square feet) in Atlanta, GA.

Unusual roof planes, visibility, durability, and height restraints demanded special applications for each building's roof, including special attention to the aesthetic value of the retail building and

barrel vault roofs. EverGuard® TPO 60 mil Gray was selected for the two barrel vault roofs housing the hotel ballrooms, providing a smooth roof surface with no penetrations. The gray color added to the aesthetic value of the property. The retail building, which houses a cafeteria, retail shops, and the hotel kitchen, received a GAFGLAS® BUR roof. There are various types of equipment on this roof (air conditioning, vents, etc.), and the

redundancy of the multiple plies provides for a watertight roof while the crushed gravel makes it aesthetically pleasing. And finally, a RUBEROID® Modified Bitumen Roofing System was used on the hotel tower to provide additional protection from the servicing of various mechanical and window-washing equipment on the roof.

Challenge: Find An Asphaltic Solution That...

- Provides multiple layers of protection against the elements
- Is suitable for multiple types of roof decks
- Shows proven performance in the field
- Is easily repaired
- Provides weathering resistance and good thermal, fire, and uplift performance

Solution: RUBEROID® Modified Bitumen Roofing

Performance

- Offers great flexibility, impact resistance, strength, and system compatibility

Versatility

- Complete line of systems including self-adhering, mop-applied, cold-applied, and heat weld/torch options
- Solutions for new or retrofit applications as well as flashing and repairs to existing built-up roofs
- Available guarantee up to 20 years*

Energy Savings

- Available with proprietary EnergyCote™ Roof Coating, a pre-applied premium reflective white elastomeric coating that is ENERGY STAR® certified** and rated by the Cool Roof Rating Council (CRRC)

RUBEROID® membranes offer greater flexibility, impact resistance, strength, and system compatibility.

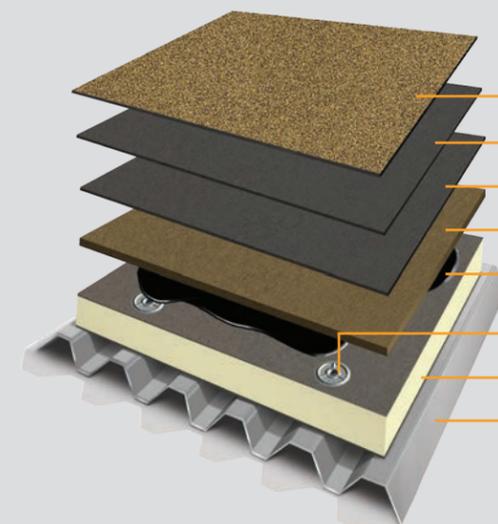
For premium, fire-rated systems specify RUBEROID® Torch Plus Granule FR, RUBEROID® Mop Plus Granule FR, or RUBEROID® HW Granule Plus FR Membrane.

Now available **ENERGY STAR® certified**** and rated by the Cool Roof Rating Council (CRRC), RUBEROID® EnergyCap™ 30 Granule FR and RUBEROID® EnergyCap™ Torch Plus Granule FR Membrane combine the proven performance of RUBEROID® membranes with proprietary EnergyCote™ Roof Coating, a pre-applied premium reflective white elastomeric coating.

For standard applications, new or retrofit, as well as flashing and repairs to existing built-up roofs, GAF offers its proven RUBEROID® Torch Membranes (APP torch-applied), RUBEROID® Mop Membranes (hot- or cold-applied), or RUBEROID® HW Membranes (SBS torch-applied).

*See applicable guarantee for complete coverage and restrictions.
 **U.S. only.

Layered System



Typical 3-Ply Torch-Applied System Using BUR Base Sheet and Premium APP Modified Bitumen Membranes

- RUBEROID® Torch Granule Membrane
- RUBEROID® Torch Smooth Membrane
- GAFGLAS® #75 Base Sheet
- EnergyGuard™ Perlite Recover Board
- Hot Asphalt
- Drill-Tec™ Fastener
- EnergyGuard™ Polyiso Insulation
- Deck



CASE STUDY 2

Mosaic Ultra Urban Living Apartments, Dallas, TX

Contractor: Texas Roof Management Inc. — texasroof.com

Building Owner: Hamilton Properties Corporation

Completion Date: December 2007

The Mosaic project involved renovation of the former Fidelity Union Bank and Insurance complex, two vacant downtown Dallas office towers.

The renovation posed numerous challenges including poor access between the 15 different roof levels situated between the building's two towers; roof perimeters comprised of a gravel guard edge, beyond which was a drop-off at 230 to 410 feet to street level; and the required removal of up to four layers of existing roofing containing asbestos, coal tar pitch, and fiberglass insulation. In addition, there was inadequate drainage and severe

ponding water on every roof level. Despite these complexities, the project was completed on time, within budget, and with no punch-list items. The new, clean, and environmentally friendly modified bitumen roofing system includes EnergyGuard™ Tapered Polyiso Insulation, LIBERTY™ SBS Self-Adhering Base/Ply Sheet, RUBEROID® HW 25 Smooth Membrane, and RUBEROID® Torch Plus Granule FR Membrane. Properly designed and installed, EnergyGuard™ Tapered Polyiso Foam Insulation Systems offer high thermal efficiency and virtually eliminate ponding water. Lightweight and durable, RUBEROID® HW 25 Smooth Membrane combines the strength of fiberglass

reinforcement with the elongation characteristics of SBS modified asphalt. The system is backed by a 20-year Diamond Pledge™ NDL (no-dollar-limit) guarantee from GAF.*

Today, Mosaic is one of Dallas's most striking high-rise residential communities. The property is a winner of the ARMA Quality Asphalt Roofing Case-Study Award, and Texas Roof Management Inc. was awarded the North Texas Roofing Contractors Association Golden Hammer Award for outstanding commercial roofing project.

*See applicable guarantee for complete coverage and restrictions.

Challenge: Find an Asphaltic Solution that...

- Provides multiple layers of protection against the elements
- Is suitable for multiple types of roof decks
- Shows proven performance in the field
- Is easily repaired
- Provides weathering resistance and good thermal, fire, and uplift performance

Solution: GAFGLAS® Built-Up Roofing

Performance

- Offer great flexibility, impact resistance, strength, and system compatibility

Versatility

- Complete line of systems including mop-applied, cold-applied, and mechanical options
- Solutions for new or retrofit applications as well as flashing and repairs to existing built-up roofs
- Available guarantee up to 20 years*

Energy Savings

- Available with United Coatings™ EnergyCote™ Roof Coating, a pre-applied premium reflective white elastomeric coating that is ENERGY STAR® certified** and rated by the Cool Roof Rating Council (CRRC)

GAFGLAS® BUR helps to reduce installation costs and tackle the most demanding roof applications.

GAFGLAS® Roofing Plies

- GAFGLAS® FlexPly™ 6 Ply Sheet
- GAFGLAS® Ply 4 Ply Sheet

GAFGLAS® Base Sheets

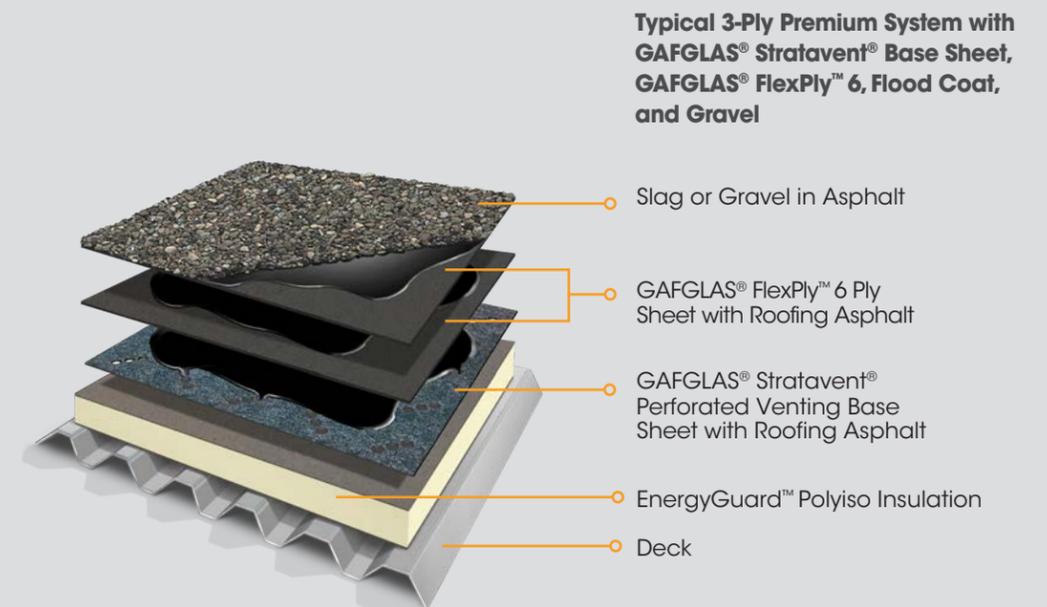
- GAFGLAS® #75 Base Sheet for economical applications
- GAFGLAS® #80 Ultima™ Base Sheet features a heavyweight construction ideal for premium roofing and flashing systems
- GAFGLAS® Stratavent® Base Sheets for new and reroof applications when a venting base sheet is needed

Mineral-Surfaced Cap Sheets

- GAFGLAS® Mineral-Surfaced Cap Sheet is UL Listed to ANSI/UL 790 Class A¹ for use as a surface ply in hot-applied roof systems and as a top ply in base flashing construction without the need for additional surface coatings
- GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet with a pre-applied elastomeric coating for the highly reflective membranes

*See applicable guarantee for complete coverage and restrictions.
**U.S. only.
¹Refer to UL Online Certification Directory for actual assemblies.

Layered System



Typical 3-Ply Premium System with GAFGLAS® Stratavent® Base Sheet, GAFGLAS® FlexPly™ 6, Flood Coat, and Gravel

Slag or Gravel in Asphalt

GAFGLAS® FlexPly™ 6 Ply Sheet with Roofing Asphalt

GAFGLAS® Stratavent® Perforated Venting Base Sheet with Roofing Asphalt

EnergyGuard™ Polyiso Insulation

Deck



CASE STUDY 1

Texas A&M University Corps of Cadets, College Station, TX

Contractor: Absolute Roofing & Waterproofing — AbsoluteRoofTX.net

Building Owner: Texas A&M University

Job Size: Over 100,000 square feet **Completion Date:** June 2017

The Corps of Cadets Halls are on-campus housing for approximately 2,600 students at Texas A&M University. The halls were constructed in 1939 and were referred to at the time as the “new area.” Today, Corps Halls is referred to as the Corps Quadrangle or “Quad” for short, and is located across the field where the Corps of Cadets train.

This project consisted of the demolition of the entire roof and interior of nine existing Corps of Cadets dorms. The contractor was tasked with installing a very difficult tapered system and ½" primed DensDeck® Roof Board to 80-year-old concrete.

The project was originally awarded using a different system. Due to the

large number of roof penetrations and the over abundance of other trades working on the roof, we suggested going with the HydroStop® PremiumCoat® System. This would allow “drying in” of the roof with HydroStop® Foundation Coat and Fabric, which would allow other trades to complete their work for a few months while walking on the partially completed roof system. The contractor would then come back in and repair any damaged areas with HydroStop® Foundation Coat and Fabric, and then build up to the required mil thickness needed (for warranty) with the appropriate coats of HydroStop® Finish Coat. The GC liked the idea but A&M was not sold on it. The day that GAF acquired Quest Construction

Products is the day the HydroStop® PremiumCoat® System solution was approved by Texas A&M.

At one point, this project had 437 workers onsite working on multiple buildings at a time. The staging areas were small to nonexistent, and this led to a logistical challenge throughout the project. Every load and movement on the grounds had to have a flagger at all times, and deliveries were scheduled a week in advance.

“The end result and the product we turned over to A&M was amazing. It was the perfect application for the amount of penetrations on each roof.”

— Barry Muise, Director of Construction

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Challenge: Find Coating Solutions That...

- Preserve and protect challenging exterior surfaces such as low-slope roofs and walls
- Resist UV degradation, water permeation, cracking, and peeling
- Are backed by a warranty of up to 20 years*
- Offer acrylics, silicones, fluoropolymers, and urethanes

Solution: HydroStop® Liquid-Applied Membranes

A liquid-applied roofing system is comprised of multiple components — including liquid-applied coatings and mesh membranes, or any combination thereof — that cure together to form a fully adhered, seamless, and self-flashing membrane.

Performance

- Monolithic design to prevent points of failure and protect against leaks
- Products with a warranty of up to 20 years*

Versatility

- PremiumCoat® Roofing forms a monolithic system — a waterproofing membrane — that molds and adheres to roof details
- Suitable for repairing and restoring roofing projects that don't require a tear-off
- Meets ASTM D6083 Standard Specification for Liquid Applied Acrylic Coating Used in Roofing
- Can be installed while occupants are in the building

Energy Savings

- HydroStop® PremiumCoat® System, when using HydroStop® PremiumCoat® Finish Coat in White, can be used to comply with Title 24 cool roof requirements. HydroStop® PremiumCoat® System is also UL Listed to ANSI/UL 790 Class A Fire Resistance for Roof Coverings, FM Approved, and Miami-Dade County Product Control Approved

The GAF HydroStop® PremiumCoat® System is a fabric-reinforced acrylic elastomeric system that is intended for re-cover and reroof

applications and can be used over a variety of substrates. It's made using high-quality raw materials and forms a flexible, UV-resistant membrane. This liquid-applied membrane is fully reinforced with a tough nonwoven polyester fabric, designed for roofing and flashing applications of many types. HydroStop® PremiumCoat® System, when using HydroStop® PremiumCoat® Finish Coat, meets or exceeds ASTM D6083 for items such as flexibility, mechanical properties, and adhesion.

HydroStop® liquid-applied roof systems are assembled onsite, forming a fully adhered, seamless membrane that meets the requirements of FM 4470 testing, which includes resistance to hail, foot traffic, wind uplift, and most importantly, water leakage. Refer to www.FMapprovals.com/RoofNav for actual FM Approved assemblies.

HydroStop® PremiumCoat® Systems feature:

- Versatile solutions for unique projects
- Low maintenance
- Seamless and self-flashing
- Excellent UV and weather resistance
- High solar reflectivity and thermal emissivity (White and Cotton only)

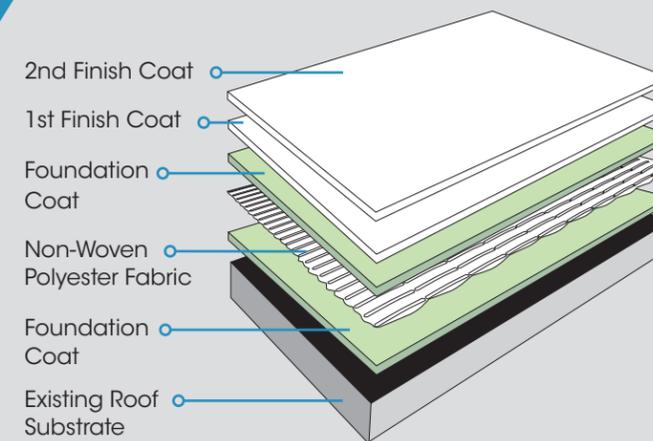
HydroStop® PremiumCoat® Systems also:

- Can contribute toward satisfying Credits under LEED® v3 and LEED® v4. See the GAF LEED® playbook at www.gaf.com/green for details.
- Can be used to comply with Title 24 roofing product requirements (White and Cotton only)

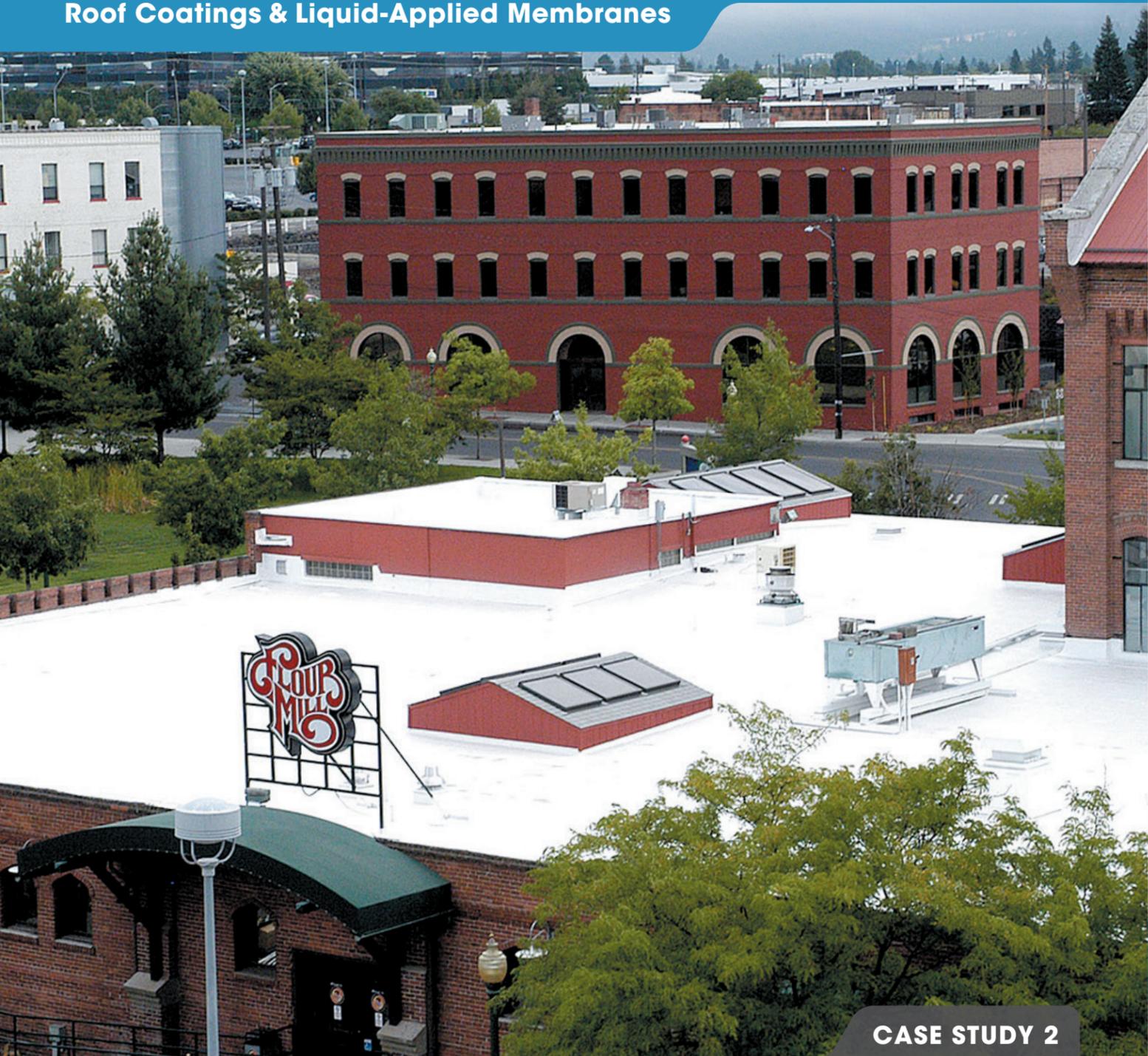
*See applicable warranty for complete coverage and restrictions.

Note: LEED® — an acronym for Leadership in Energy and Environmental Design™ — is a registered trademark of the U.S. Green Building Council.

Layered System



HydroStop®
Typical HydroStop® PremiumCoat® System installation using 2 coats of HydroStop® PremiumCoat® Foundation Coat, HydroStop® PremiumCoat® Fabric, and 2 coats of HydroStop® PremiumCoat® Finish Coat



CASE STUDY 2

Lakeside at Delray, Delray Beach, FL

Contractor: Trusted Construction Inc. — trustedconstruction.com

Building Owner: Lakeside Association Inc.

Job Size: 50,000 square feet **Completion Date:** March 2015

Located less than a mile from the beautiful shoreline of Delray Beach sits Lakeside at Delray, a community association of buildings with aging roofs.

The proactive Lakeside at Delray community association wanted to ensure that their aging mod bit roofs were protected and preserved. After completing a moisture survey and

roof assessment, the association conducted a vigilant search for a proven roof coating product and a contractor who would be supported by a manufacturer's warranty the association could trust, and who offered professional service and attention to detail. After priming the existing roof with Unisil Primer, the contractor performed flashing

details to ensure movement points on the roof would not see future moisture intrusion. Then three coats of United Coatings™ Unisil HS Roof Coating — which is rated by the Cool Roof Rating Council (CRRC) with an SRI (Solar Reflectance Index) of 110, among the highest of any roof coating — were applied to protect the roofs from the rigors of Florida sun and weather.

The United Coatings™ brand from GAF offers a wide range of coating technologies, including acrylic, silicone, fluoropolymer, and urethane, designed to provide a reliable way to protect, preserve, restore, repair, and beautify. Most products do not require expensive equipment to install and are safe to handle and apply. The monolithic design helps reduce points of failure, leaks, and resultant callbacks, providing peace of mind.

Roof Mate™ Coating

United Coatings™ Roof Mate™ Coating, one of the world's first acrylic roofing elastomers, forms a reliable, water-resistant monolithic membrane that preserves and protects the underlying roofing system.

Reflective

Highly reflective, top-quality pigments reflect a majority of the sun's heat, dramatically lowering the temperature of the underlying roof substrate and interior temperatures.

Monolithic

Roof Mate™ Coating transforms the entire roof into a singular membrane. All penetrations and details are cohesively combined into one solid surface, eliminating potential points of failure.

Versatile

United Coatings™ Roof Mate™ Coating can be used on virtually any flat and low-slope roof — including built-up, modified bitumen, structural concrete, metal, single ply, and more — and, with proper maintenance and recoating, you can help extend the life of the roof.

Approvals

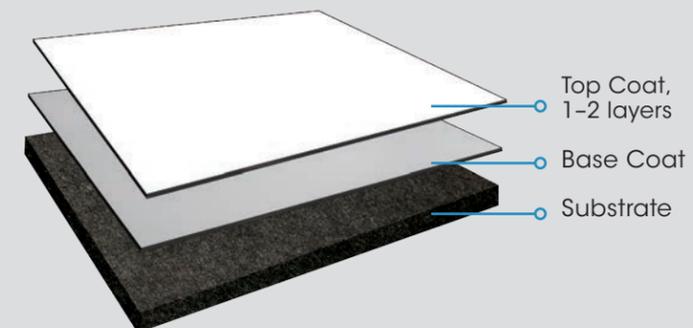
Roof Mate™ Top Coat is rated by the Cool Roof Rating Council (CRRC) (White, Tan, and Light Tan only); can be used to comply with Title 24 cool roof requirements (White only); is Miami-Dade County Product Control approved; and meets ASTM D6083 Standard Specification for Liquid Applied Acrylic Coating Used in Roofing.

Roof Mate™ System is UL Listed to ANSI/UL 790 Class A Fire Resistance for Roof Coverings* and is FM Approved.**

*Refer to UL Online Certification Directory for actual assemblies.

**Refer to www.FMapprovals.com/RoofNav for actual FM Approved assemblies.

Roof Mate System™



Roof Mate™

Typical Roof Mate™ System utilizing Roof Mate™ Base Coat with up to 2 layers of Roof Mate™ Top Coat for ideal protection and bleed blocking



CASE STUDY

Amarillo Oral and Maxillofacial Surgery, Amarillo, TX

Architect: Playa Design Studio
Contractor: Tecta America CS, LLC — tectaamerica.com
Building Owner: Dr. William Graves
Job Size: 12,000 square feet **Completion Date:** December 2014

Amarillo Oral and Maxillofacial Surgery provides solutions to a wide variety of problems related to the mouth, teeth, and facial region. The new office offers state-of-the-art diagnostic and imaging equipment. The building, designed by Playa Design Studio, utilized a contemporary architecture

along with exterior lighting to attract attention. The owner wanted to install a clean, reflective roof that would fit the architecture of the building and enhance it with the "AOMS" logo, visible to air traffic above.

EnergyGuard™ Polyiso Insulation and HD Cover Board were mechanically

attached. The TPO system consisted of GAF EverGuard® TPO 60 mil fully adhered using EverGuard® SBA 1121 TPO Bonding Adhesive. For the "AOMS" logo, TOPCOAT® TPO Red Primer was used to ensure good adhesion over the new TPO, and TOPCOAT® Membrane in blue was used to create the logo.

Challenge: Find Roof Insulation That...

- Doesn't contribute to global warming
- Meets FM Class 1 Fire Approvals
- Has the highest R-value per inch of thickness
- Is dimensionally stable

Solution: GAF EnergyGuard™ Polyiso Roof Insulation Products

Economical and exceptional thermal performance for all types of roofing systems

EnergyGuard™ Polyiso Roof Insulation products are made of organic/glass facers bonded to a core of isocyanurate foam. It's available in thicknesses ranging from 1" to 4.6" and offers tapered panels.

LTRR Value

- EnergyGuard™ Polyiso provides the highest R-value per inch compared to non-polyiso types of insulation of equivalent thickness
- Meets FM 4450/4470* and ANSI/UL 790** Class A roofing fire rating and ANSI/UL 263** fire tests of building construction materials

*Refer to www.FMApprovals.com/RoofNav for actual FM Approved assemblies.
 **Refer to UL Online Certification Directory for actual assemblies.

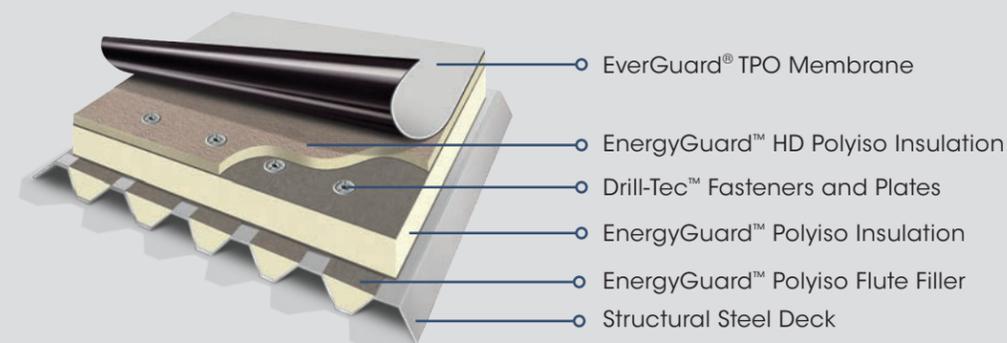
Global Warming Impact

- Manufactured in state-of-the-art plants using the latest technology, with EPA-compliant blowing agents containing no CFCs or HCFCs, EnergyGuard™ Polyiso Roof Insulation has zero ozone depletion potential and no global warming potential

For assistance designing tapered roofs, contact the GAF Tapered Design Group at: gaf.com/taperreddesign

Layered System

Typical mechanically attached EverGuard® TPO Smooth Membrane over metal panel deck using EnergyGuard™ Polyiso Insulation Flute Filler and HD Polyiso Insulation, which can be used as a cover board.



GAF has a solution for every low-slope application. Including yours.

Our full line of solutions includes TPO and PVC single-ply membranes, asphaltic solutions, coatings, liquid-applied roofing, waterproofing, polyiso insulation, and pavement coatings.

A Product Snapshot

The chart below presents a cross-section of the most popular high-quality roofing solutions available from GAF. We hope you will use it to help identify some of the physical performance criteria of individual products and then follow up with our dedicated teams who are ready to answer any questions you may have.

But keep in mind that there are other important considerations — and many more specialized products — as well. Your long-term or short-term investment objectives, property use, location, and overall building construction will influence your final decisions.

Desired Characteristic	ASPHALTIC							LIQUID-APPLIED						SINGLE PLY										
	RUBEROID®/ LIBERTY™ SBS Modified Bitumen				RUBEROID® APP Modified Bitumen		GAFGLAS® Built-Up Roofing		United Coatings™ Roof Mate™ Coating			HydroStop® PremiumCoat® System			EverGuard® Extreme® TPO			EverGuard® TPO			EverGuard® TPO Fleece-Back		EverGuard® PVC	
	LIBERTY™ Self-Adhered	Torch	Mop	Cold-Applied	Torch	Mineral-Surfaced	Gravel	For Metal Roofs	For Asphaltic Roofs	For Single-Ply Roofs	For Metal Roofs	For Asphaltic Roofs	For Single-Ply Roofs	Adhered	Mechanically Attached	RhinoBond®	Adhered	Mechanically Attached	RhinoBond®	Adhered	Mechanically Attached	Adhered	Mechanically Attached	
Multi-Layered Membrane Protection	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	●	●	-	-	
Flexes To Conform To Roof Movement	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Low Maintenance	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Light Reflective For Energy Savings	●	● ²	● ²	●	● ²	● ²	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Puncture/Leak Resistant	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Easy To Repair After Installation	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Heat-Welded, Self-Adhered, Torched, Cold-Applied, Or Mopped Seam Strength	●	●	●	●	●	●	●	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●	
Grease/Oil/Chemical Resistant ¹	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Can Be Installed In Cool Weather	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
High Heat and UV Resistance	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Maximum Guarantee/Warranty Length In Years*	20	20	20	20	20	20	20	20	15	15	20	20	20	35	30	35	30	25	30	30	25	25	25	

- Top Performance
- Excellent Performance
- Good Performance
- Not Recommended
- Not Available

Ratings based on GAF estimates and contractor interviews

¹See applicable GAF guarantee/warranty for specific exclusions

²Requires the use of EnergyCap™ Products

³May require that installation adhesive be preheated



Resources and Services at your fingertips

Full-Service Technical Support

The GAF Technical Services Group is available to provide additional data and information on geographic details, specific GAF projects, and code-related questions. For more information about our quality roofing products, systems, or support, visit us at gaf.com or call our toll-free **Technical Hotline, 1-800-ROOF-411**.

Architectural Information Services... An Entire Group Dedicated to You

Architects and specifiers can access an entire team devoted to assisting you with the specification process. They can answer

questions and provide assistance with master specification preparation and other valuable activities. Call them toll free at 1-800-522-9224 or e-mail AIS@gaf.com.

gaf.com – Your Resource for Complete Product Data

The GAF website contains technical data and information on both low- and steep-slope products. Information can be viewed or, in many cases, faxed or e-mailed to you, at your request directly from our website!

REGIONAL SALES OFFICES



For the location of the closest GAF distributor or factory-certified contractor, call the nearest GAF regional office.

Central	Northeast	Southeast	Southwest	West
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Service Contacts

Technical Support and Guarantee Services 1-800-766-3411	International Services 1-800-555-1852	Architects and Specifiers 1-800-555-1852	Canada Sales Office 855-492-808
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