

Quick-Reference Guide for Specifiers (COMGN293)

Updated: 6/18



*Quality You Can Trust...From
North America's Largest Roofing Manufacturer!™*



Quality You Can
Trust...From
North America's
Largest Roofing
Manufacturer!™

ROOFING SYSTEM SOLUTIONS

QUICK-REFERENCE GUIDE FOR SPECIFIERS

gaf.com

DURABLE SOLUTIONS FOR TODAY'S ROOFING CHALLENGES

- **GAF Headquarters Achieves
LEED® Resilient Design Pilot
Credit Using EverGuard
Extreme® TPO/Pg 6**
- **Urban Living Complex Conquers
Renovation Complexities With GAF
Modified Bitumen Solutions/Pg 12**
- **GAF Coatings Save Aging
Florida Roofs From
Retirement/Pg 16**
- **Tennessee Tavern Finds
Reason To Cheer With
New Pavement Coatings/Pg 18**
- **New TPO Roof For Texas
Oral Surgeon Makes
Jaws Drop/Pg 20**



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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Product Snapshot

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 incorporate 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.

- The **GAF VR Experience** at gaf.com/VR uses virtual reality to bring architects, specifiers, and their clients up on the roof for a 360° view of the many components that comprise the roof environment
- 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
- Not sure which coating is right for you? Let **Coatings Coach** help you find the solution based on your specific job requirements at CoatingsCoach.gaf.com

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® HWV 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 even removed the ballast during the reroof. This material will be repurposed in many ways — for crumb rubber, warehouse insulation, and other applications.

LEED® Certification

To achieve the LEED® Resilient Design Pilot credit IPp98, 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.

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

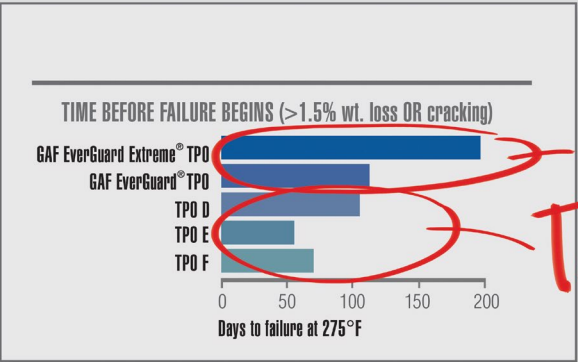
- GAF sustainability credentials include:
- UL Landfill Waste Diversion Validation — Zero Waste to Landfill (Mt Vernon, IN, and Gainesville, TX, TPO Plants)
 - HPDs — Publishes Health Product Declarations (HPDs) for transparent reporting and LEED® v4 compliance
 - EPDs — Publishes Environmental Product 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

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



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

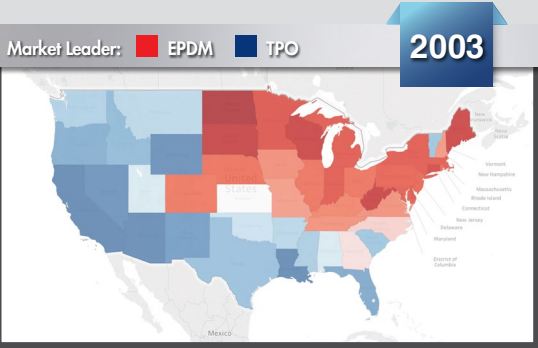
*See applicable guarantee for complete coverage and restrictions.

BENEFIT SPOTLIGHT

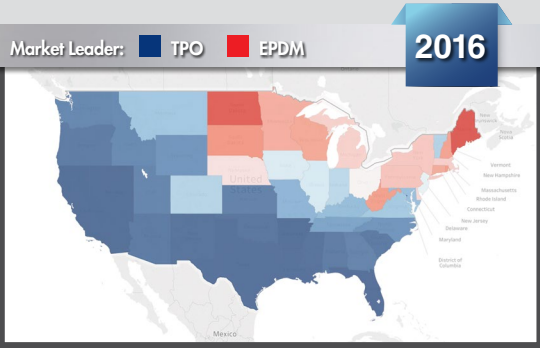
ENERGY SAVINGS: COOL ROOFS ARE CHANGING THE ROOFING INDUSTRY

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 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)

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

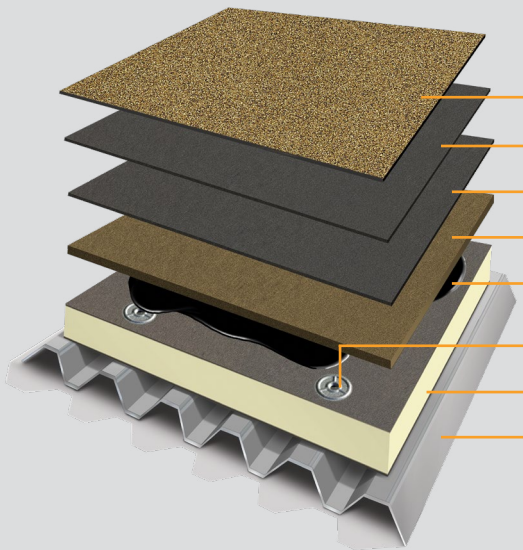
For premium, fire-rated systems specify RUBEROID® Torch Plus Granule FR, RUBEROID® Mop Plus Granule FR, or RUBEROID® HWV Granule Plus FR Membrane.

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 United Coatings™ 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® HWV 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

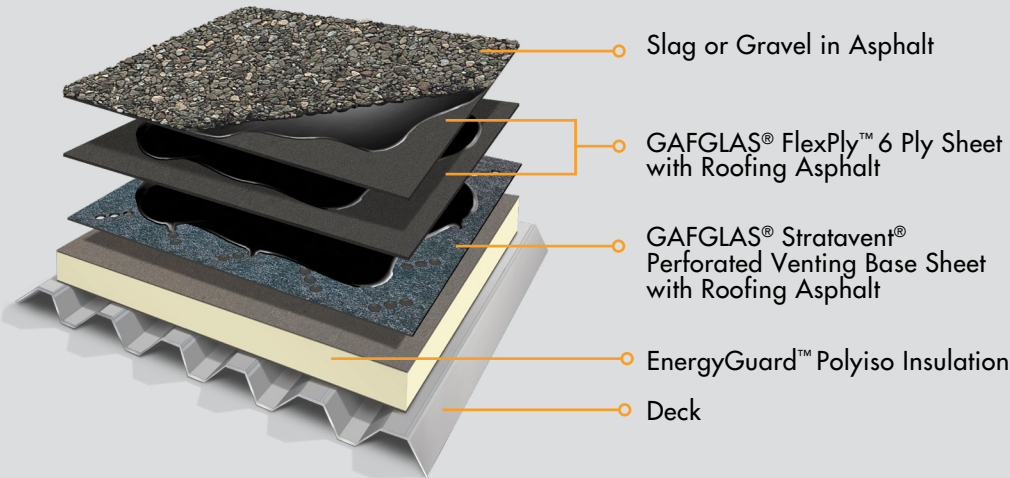
Mineral-Surfaced Cap Sheets

- GAFGLAS® Mineral-Surfaced Cap Sheet is UL Listed to ANSI/UL 790 Class A† 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.
†Refer 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





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 1/2” 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 & United Coatings™ Products

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

- Offers a wide range of solutions including acrylics, silicones, fluoropolymers, and urethanes
- 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
- Many 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:

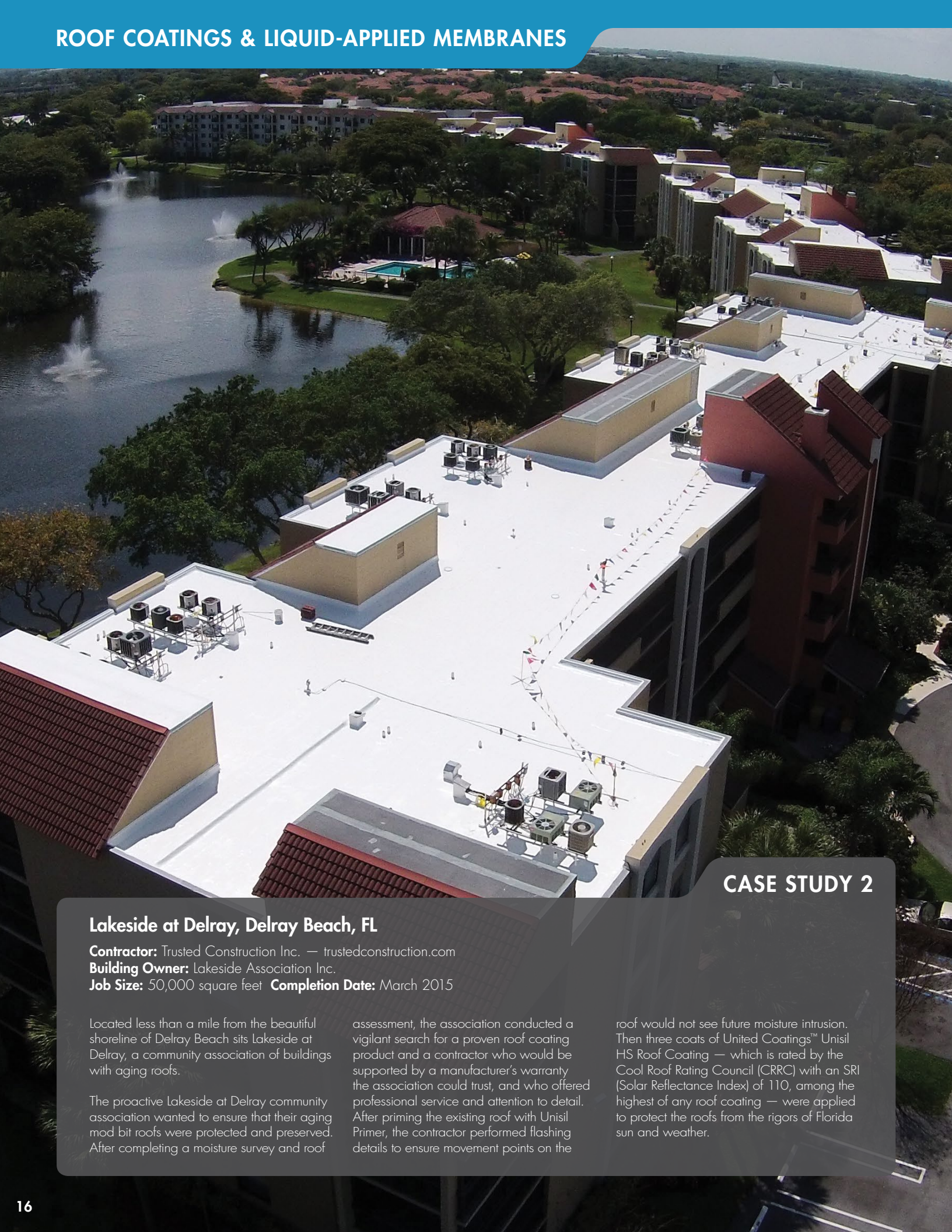
- Versatile solutions for unique projects
- Low maintenance
- Seamless and self-flashing
- Excellent UV and weather resistance
- High solar reflectivity and thermal emissivity (White and Cotton only)

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.



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 (CRRCC) 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 (CRRCC) (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.

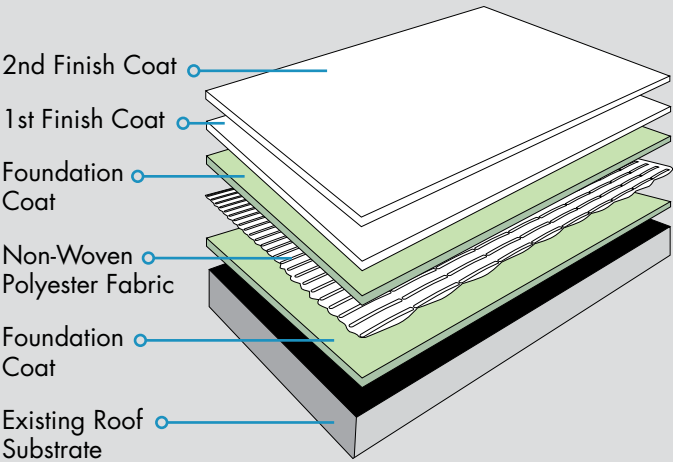
Roof Mate™ System is UL Listed to ANSI/UL 790 Class A Fire Resistance for Roof Coverings* and is FM Approved.**

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

LAYERED SYSTEM

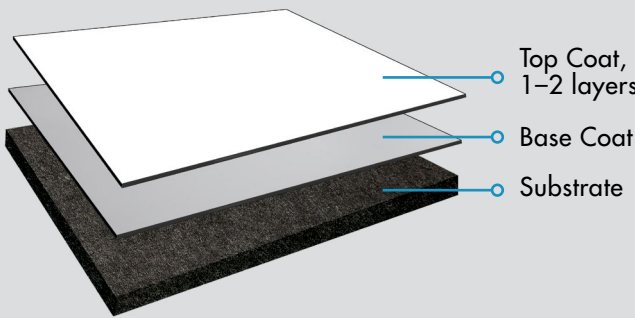
HydroStop®

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



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 1

BucketHead Tavern, Knoxville, TN
Contractor: National Pavement
Owner: Troy Hale
Job Size: 1,000 square feet **Completion Date:** 2012

National Pavement collaborated with BucketHead Tavern to create a one-of-a-kind look for the parking lot using StreetBond® Coatings and StreetPrint™ Asphalt Printing patterns. The imprinted patterns help the tavern avoid the trip hazard caused by cracking and heaving flagstone and brick pavers. BucketHead Tavern's choice to use StreetPrint™ Asphalt Printing and StreetBond® Coatings makes their parking area and entrance ADA compliant.

StreetBond® Coatings do not delay construction and are a great choice for projects that require multitasking and quick turnaround. In fact, a five-man crew completed the job in three days. The use of StreetBond® Coatings also enabled National Pavement to use the existing 12-year-old asphalt. Rejuvenating the asphalt with StreetBond® SB150 Pavement Coating instead of completely repaving did not impede construction on the interior in any way. The very next day, heavy trucks and construction equipment were driving and parking directly on the newly coated asphalt.

Challenge: Find Asphalt Pavement Coatings That...

- Protect, repair, and beautify asphalt and concrete pavement surfaces
- Provide solar reflectivity
- Are safer for the environment
- Help reduce the life cycle cost of traditional asphalt

Solution: StreetBond® Pavement Coatings

Enhance the look and extend the life of pavement surfaces with StreetBond® Pavement Coatings engineered to protect and last.

Transform Spaces

- Add color and design to paved surfaces to improve the aesthetics of parking lots, playgrounds, streetscapes, entryways, and much more
- Skid-resistant and fully compliant with the Americans with Disabilities Act

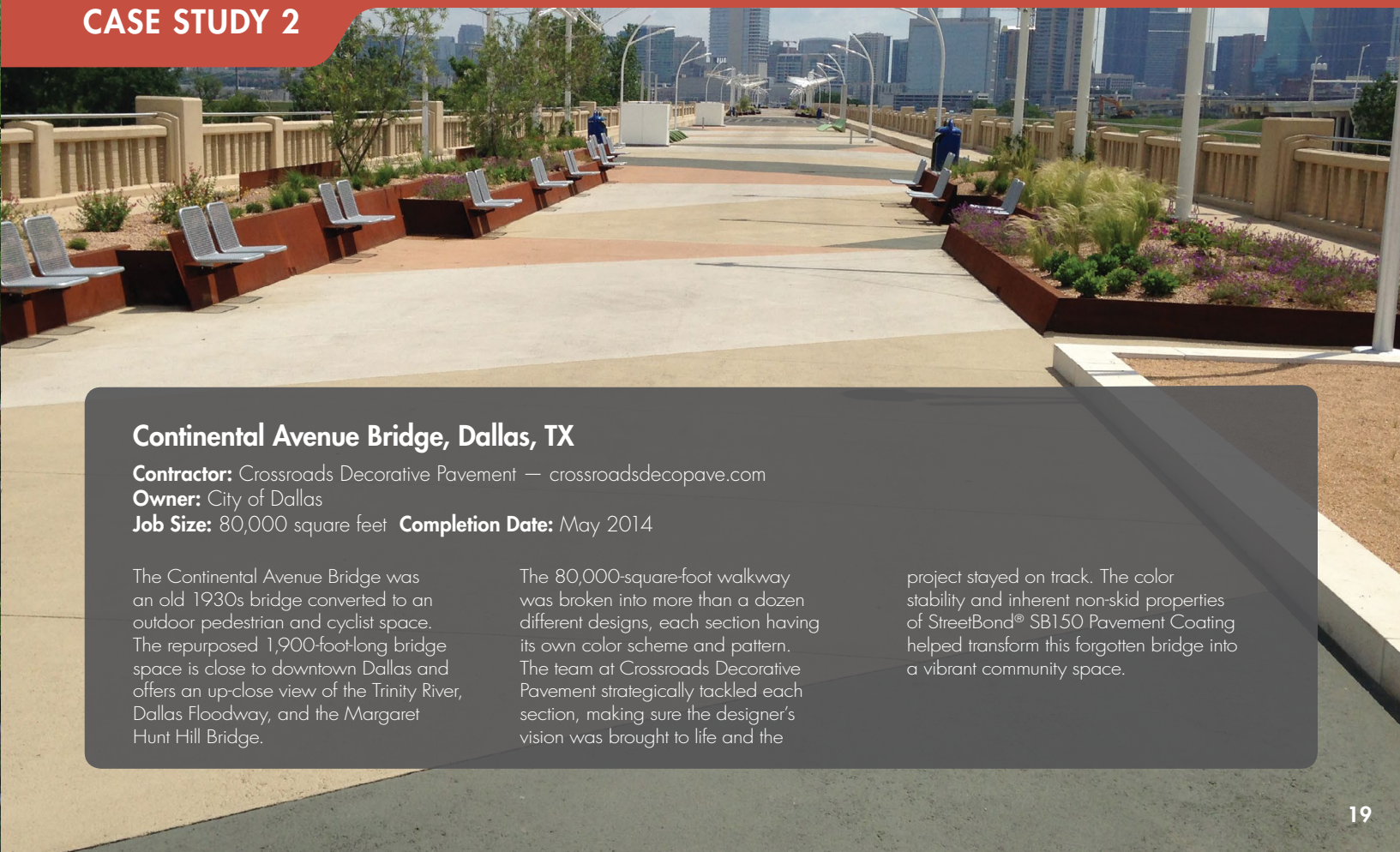
Durability

- Bonds asphalt with a renewable top layer of high-quality coating that reinforces the surface
- Helps protect and preserve asphalt from UV, water, and chemical damage as well as the loss of aggregates

Energy Savings

- Provides solar reflectivity that reduces the Urban Heat Island Effect — even with a darker color — to keep pavements cooler

CASE STUDY 2



Continental Avenue Bridge, Dallas, TX

Contractor: Crossroads Decorative Pavement — crossroadsdecopave.com
Owner: City of Dallas
Job Size: 80,000 square feet **Completion Date:** May 2014

The Continental Avenue Bridge was an old 1930s bridge converted to an outdoor pedestrian and cyclist space. The repurposed 1,900-foot-long bridge space is close to downtown Dallas and offers an up-close view of the Trinity River, Dallas Floodway, and the Margaret Hunt Hill Bridge.

The 80,000-square-foot walkway was broken into more than a dozen different designs, each section having its own color scheme and pattern. The team at Crossroads Decorative Pavement strategically tackled each section, making sure the designer's vision was brought to life and the

project stayed on track. The color stability and inherent non-skid properties of StreetBond® SB150 Pavement Coating helped transform this forgotten bridge into a vibrant community space.



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.

LTTR Value

- Offers one of the highest LTTR insulation values compared to any other type of nonpolyiso insulation product of equivalent thickness that meets an FM Class 1 rating*

Fire Resistance

- 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.

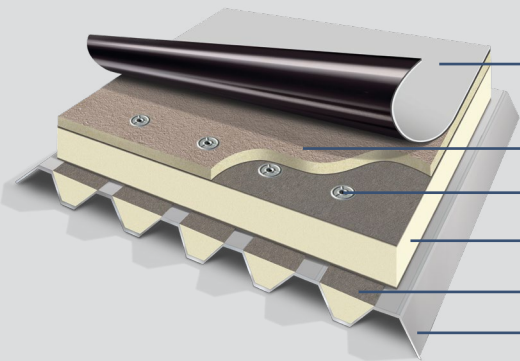
Global Warming Impact

- 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/tapereddesign

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.



- EverGuard® TPO Membrane
- EnergyGuard™ HD Polyiso Insulation
- Drill-Tec™ Fasteners and Plates
- EnergyGuard™ Polyiso Insulation
- EnergyGuard™ Polyiso Flute Filler
- Structural Steel Deck

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	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Top Performance	Top Performance	Good Performance	Good Performance	Good Performance	Good Performance	Excellent Performance	Excellent Performance	Excellent Performance	Not Recommended	Not Recommended	Not Recommended	Good Performance	Good Performance	Not Recommended	Not Recommended	Not Recommended	Not Recommended	
	Flexes To Conform To Roof Movement	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Good Performance	Good Performance	Good Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Excellent Performance	Top Performance	Excellent Performance	Excellent Performance	Top Performance	Excellent Performance	Excellent Performance	Top Performance	Top Performance	
	Low Maintenance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	
	Light Reflective For Energy Savings	Good Performance	Top Performance ²	Top Performance ²	Good Performance	Top Performance ²	Top Performance ²	Good Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	
	Puncture/Leak Resistant	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Top Performance	Good Performance	Good Performance	Good Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	
	Easy To Repair After Installation	Top Performance	Top Performance	Excellent Performance	Excellent Performance	Top Performance	Excellent Performance	Good Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	
	Heat-Welded, Self-Adhered, Torched, Cold-Applied, Or Mopped Seam Strength	Excellent Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	
Grease/Oil/Chemical Resistant ¹	Good Performance	Good Performance	Good Performance	Good Performance	Excellent Performance	Good Performance	Good Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance	Top Performance		
Can Be Installed In Cool Weather	Not Recommended	Top Performance	Excellent Performance	Good Performance	Good Performance	Excellent Performance	Excellent Performance	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Good Performance	Excellent Performance	Excellent Performance	Good Performance	Excellent Performance	Excellent Performance	Good Performance	Excellent Performance	Good Performance	Excellent Performance	
High Heat and UV Resistance	Good Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Top Performance	Top Performance	Top Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance	Excellent Performance		
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	

For complete details, restrictions, requirements, and conditions, please refer to official guarantee document and applicable GAF specification manual.

¹See applicable GAF guarantee/warranty for specific exclusions

²Requires the use of EnergyCap™ Products

³May require that installation adhesive be preheated

*Note: For complete details, restrictions, requirements, terms, and conditions, please refer to official guarantee document and applicable GAF specification manual.



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**.

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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!



*Quality You Can Trust...
From North America's
Largest Roofing Manufacturer!™*

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Swedesboro, NJ 08085
856-241-0241

Southeast

9950 Princess Palm Avenue,
Suite 312
Tampa, FL 33619
813-622-3962

Southwest

14911 Quorum Drive,
Suite 600
Dallas, TX 75254
972-851-0500

West

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