



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

RELIABLE COATING SOLUTIONS

gaf.com

PRESERVE AND PROTECT **CHALLENGING** EXTERIOR SURFACES

Whether applied to a building's roof, wall, or hardscape, GAF manufactures reliable coating solutions that building owners and design professionals know they can trust. From a difficult waterproofing project to a coating to improve color fastness, GAF has the solution for the job.

Mercedes-Benz Superdome

Mercedes-Benz S

ABOUT THIS GUIDE

This brochure discusses:

- How GAF Coatings Solve Challenging Applications
- GAF's Portfolio of Products and Technologies
- The Advantages of Choosing GAF



TESTED. PROVEN. TRUSTED.

High-quality coatings provide a reliable way to protect, preserve, restore, repair, and beautify structures around the world. Based on experience spanning several decades, coating solutions from GAF are field-proven and time-tested.



TESTED TECHNOLOGY

Coatings are used on virtually every exterior building surface. Whether prohibiting water intrusion, changing the color of an exterior wall, reflecting the intense heat of the sun, or resisting dirt pickup, coatings perform many critical functions in the operation and maintenance of a structure. When properly installed and maintained, GAF coatings are reliable and durable. When installed by a trained and approved applicator, many products can be warranted by GAF.



ANSWERS TO COMMON CHALLENGES

The weak link of many structures is improper selection of exterior coating solutions. UV degradation, water permeation, cracking and peeling, and lack of durability cause many headaches for building owners and contractors alike. GAF coatings are engineered to help overcome these difficult situations, providing peace of mind and dependable solutions that can be maintained, despite challenging conditions, for the long term.



RELIABLE MANUFACTURER

GAF is a leading manufacturer of protective systems and coatings for the construction industry, with 27 locations across the United States. Our Technical Sales Representatives and Territory Managers are positioned to provide guidance, support, and training to the industry.

GAF provides roof systems and coating solutions that meet the most rigorous industry standards. Our established brands are staples of the roofing and pavement coating industries.



UNMATCHED QUALITY

Unlike traditional paint, GAF coating solutions are specifically formulated and applied with longevity and durability in mind. Using only the highest-quality raw materials, all products are thoroughly tested before packaging to ensure translation of quality to the project. Most products are safe and do not require expensive safety or environmental equipment to apply, meaning contractors can focus on proper product installation and not worry about worker safety where product application is concerned.



Coatings For Challenging Conditions

Exterior waterproofing systems are expected to successfully weather the toughest conditions without failing. These systems must retain their waterproofing and water-resistant qualities over many years with limited maintenance and minimal ongoing investment.

FUNCTIONAL



LEAKS & WATER INTRUSION

Water intrusion, such as through leaks or condensation, is the number-one challenge for most exterior construction surfaces. This results in deteriorating substrate conditions, interior and property damage, devaluation of the structure, and interruption of occupancy.



EXISTING ROOF AND WALL DEFICIENCIES

Cracks, damage, and points of failure in existing roof systems often cause headaches for building owners. The issues may be merely cosmetic, or they could be symptoms of much more serious structural issues beneath the surface.



BUILDING OCCUPANCY

When structures are utilized to house people or inventory, it can be very costly to perform large repairs or interrupt occupancy due to access requirements, toxic fumes, or temporary exposure to elements.



DETRIMENTAL ENVIRONMENT

Many regions face ocean salt spray, intense sun, unstable ground, or blowing wind and rain. In addition, many industrial processes release corrosive gases and residues that attack traditional roofing materials.

In addition to function, many applications to buildings require an appealing visual and reflective characteristic. Whether maintaining a color, changing a color, or creating a pattern, these coatings must perform as required and appear consistent over time, standing up to the challenging conditions they face.

AESTHETIC



COOL ROOF COMPLIANCE

When determining the best solution for an exterior surface, local building codes, energy costs, and effect of absorbed heat must be considered.



COLOR STABILITY AND IMAGE RETENTION

Years of ultraviolet exposure, polluted air, and dirt and debris can wreak havoc on surfaces, making them appear faded and inconsistent.



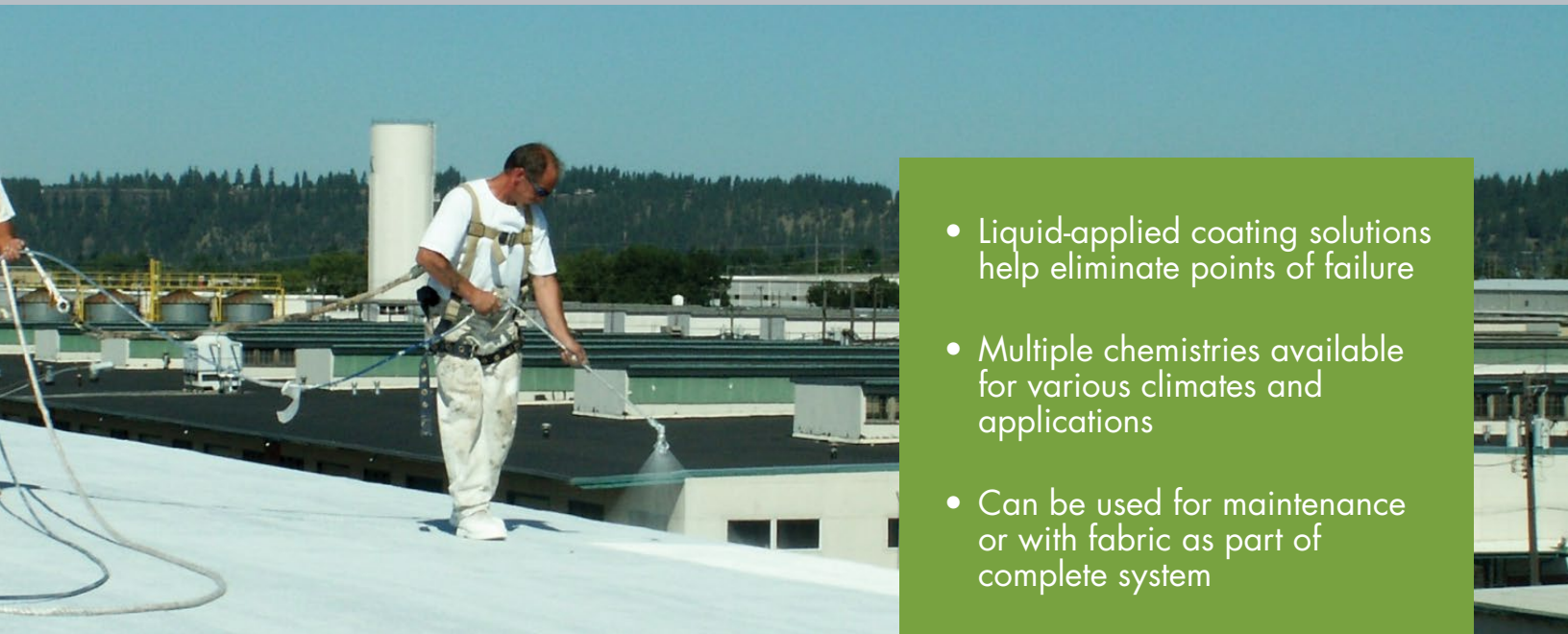
PROPERTY MAINTENANCE

In many cases, property maintenance is tied to visual appearance, and lesser-quality coatings require more frequent maintenance and recoats.



ARCHITECTURAL DESIGN

Some applications require complex patterns, designs, and wide color palettes to meet the application or designer requirements.



- Liquid-applied coating solutions help eliminate points of failure
- Multiple chemistries available for various climates and applications
- Can be used for maintenance or with fabric as part of complete system

VERSATILE ROOF COATINGS

Liquid-applied coatings for roofs from GAF make sense for both contractors and building owners.

Contractors love the simple installation, wide range of technologies, and proven track record of GAF brands. Most products do not require expensive equipment to install, and are safe to handle and apply. The monolithic design prevents points of failure and eliminates leaks and resultant callbacks, providing peace of mind.

Building owners appreciate the value that GAF products bring. Reliable solutions mean not having to replace entire roofs; non-toxic application prevents interruption of occupancy or other undesirable effects. The reflective, durable characteristics of many of our coatings provide energy savings and long-term aesthetic stability.



LEARN MORE ABOUT OUR LIQUID-APPLIED ROOF SYSTEMS

GAF provides additional details about our proven, durable roof systems in our Liquid-Applied Roof Membrane brochure.

Contact your GAF Technical Sales Representative to request a copy or for more information.

ROOF COATING TECHNOLOGIES

ROOF COATINGS: ACRYLICS

PG 8

Elastomeric acrylic roof coatings provide excellent durability and can be installed over existing modified bitumen, built-up, concrete, metal, or single-ply installations. These coatings are reflective and very easy to install and maintain. GAF is the leader in acrylic roof coatings, having supplied nearly a billion square feet of product throughout the last 5 decades.

ROOF COATINGS: SILICONES

PG 9

GAF supplies high-volume solids, premium elastomeric silicone coatings that provide superior weatherproofing, ultraviolet resistance, resistance to biological growth, and fire resistance over polyurethane foam insulation and other appropriate substrates. These products are also often used in high-moisture climates for their fast-drying characteristics.

ROOF COATINGS: FLUOROPOLYMERS

PG 10

Fluoropolymer coatings provide the ultimate in reflectivity, color stability, algae resistance, and weatherability over new or existing roof surfaces. Although they are highly flexible, they exhibit a tough, enamel-like finish that resists abrasion, biological growth, dirt, acid rain, and all types of weather extremes.

ROOF COATINGS: URETHANES

PG 11

Urethane technologies from GAF provide high abrasion, impact, and chemical resistance with simple installation characteristics. They allow for great versatility in protecting a wide range of substrates from the effects of weathering and moisture intrusion.



UNITED COATINGS™ ROOF MATE™ COATING

United Coatings™ Roof Mate™ Coating, one of the world’s first acrylic roofing elastomers, was developed over four decades ago to form a reliable, water-resistant monolithic layer 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. This results in reduced HVAC loads, which saves energy usage and expense. Further, equipment installed on roof areas operates at reduced temperatures, extending a roof’s life.

MONOLITHIC

A roof is only as strong as its weakest point. With a liquid-applied coating solution, the entire roof becomes a singular membrane. All penetrations and details are cohesively combined into one solid surface, eliminating points of failure that are common with dislike materials or roofing systems that require seaming.

VERSATILE

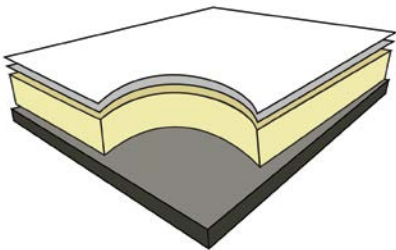
Acrylic liquid-applied coatings can be applied over existing substrates, including built-up, modified bitumen, concrete, metal, single-ply, and many more. United Coatings™ Roof Mate™ Coating can be used on virtually any flat and low-slope roof, and, with proper maintenance and recoating, you can help extend the life of your roof.

APPROVALS

United Coatings™ Roof Mate™ Coating has been independently tested and is rated by the Cool Roof Rating Council (CRRC) for use in Title 24 projects. It is also rated UL 790 Class “A” as well as Factory Mutual (FM) and Miami-Dade County Product Control approved. It meets Federal Specification #RRR-S-2838 and ASTM D6083 “Standard Specification for Liquid Applied Acrylic Coating Used in Roofing.”

UNITED COATINGS™ DIATHON® ROOF COATING

United Coatings™ Diathon® Roof Coating is an advanced high solids acrylic elastomer, which protects sprayed-in-place polyurethane foam from degradation caused by exposure to normal conditions. It is a non-oxidizing protective coating formulated with reinforcing laminar pigments and nonmigrating fire resistance, with no added extenders or modifiers. It contains an unsurpassed biocide package that provides maximum resistance to algae and mildew growth.



UNITED COATINGS™ UNISIL & UNISIL HS ROOF COATINGS

United Coatings™ Unisil Roof Coating is a solvent-based silicone roof coating and United Coatings™ Unisil HS Roof Coating is an ultra-high solids elastomeric silicone coating. Both provide superior weatherproofing, ultraviolet resistance, and fire resistance to extend the life of new and existing roof substrates.

LONG-TERM PERFORMANCE

United Coatings™ Unisil and Unisil HS Roof Coatings have quick moisture resistance to rain, which promotes peace of mind to both building owners and contractors. Their chemical properties allow them to resist algae, mildew, and mold growth.

CONTINUED FLEXIBILITY

After 5,000 hours exposure, the coating retains its ability to withstand multiple mandrel bends at 2°F (-17°C) without cracking. This test result translates to flexibility in environments where a roof may reach higher temperatures during the day and quickly decrease in temperature at night. As a roof expands and contracts, the coating will move with it.



PROJECT PROFILE
HOTEL – Miami, FL

CHALLENGE A downtown luxury hotel located in the cultural Coconut Grove district needed a coating solution that could be applied to the multiple roof levels while not interrupting guests, hotel events, or the daily operations of the hotel. With unpredictable bayside weather and hotel guests to consider, they needed a coating solution that could be applied easily and cure quickly.

SOLUTION United Coatings™ Unisil HS Roof Coating is a single-component, ready-to-use material, which helped the contractor deal with the hotel’s roof access constraints. Simple to install, even on multiple roof levels, the coating’s moisture-cure technology guaranteed that all 20,000 ft² was applied quickly, rain wash-off resistant in minutes, and cured quickly, keeping the hotel open during the entire process.



UNITED COATINGS™ KYMAX™ COATING

United Coatings™ Kymax™ Coating is an innovative technology based on Kynar Aquatec® PVDF fluoropolymer resin, designed to deliver the proven durability and performance of traditional Kynar® PVDF coatings. Although the low-build elastomeric is highly flexible, it exhibits a tough, enamel-like finish that resists abrasion, biological growth, dirt, oil, and weather extremes.

HIGH REFLECTIVITY/EMISSION

United Coatings™ Kymax™ Coating is rated by the Cool Roof Rating Council and has an SRI (Solar Reflectance Index) of 110, which is among the highest of any roof coating. To a building owner, this high reflectivity translates into reduced cooling costs for the building.

COLOR AND GLOSS STABILITY

The PVDF resin in United Coatings™ Kymax™ Coating is universally known as the world’s most weatherable coating resin, and is virtually immune to UV degradation. The high-quality pigments used for tinting United Coatings™ Kymax™ Coating provide ultimate color stability and gloss retention, and are able to provide relatively high reflectivity values even in darker colors.

*Kynar® and Kynar Aquatec® are registered trademarks of Arkema Inc.



PROJECT PROFILE

MERCEDES-BENZ SUPERDOME – New Orleans, Louisiana

CHALLENGE Maintaining the appearance and performance of the largest fixed dome structure in the world is difficult due to its location in the heart of hot and humid New Orleans. The Superdome needed a roof coating that was up to the challenge of resisting the buildup of dirt and biological growth, keeping the city’s “crown jewel” bright white.

SOLUTION The architects placed test patches of eight different coatings on the roof and let them weather for 6–10 months to see how each would perform in the demanding environment. United Coatings™ Kymax™ Coating outperformed the others in color retention, cleanliness, and the ability to resist biological growth. Not only will the dome’s roof stay clean, its bright white, highly reflective surface now also offers significant energy savings in lowering the roof temperature of the Superdome by reflecting heat from the sun.



UNITED COATINGS™ ELASTUFF® 101/103 COATINGS

United Coatings™ Elastuff® 101/103 is a high-solids, moisture-catalyzed polyurethane coating system. This combination provides an excellent balance of tensile strength, elongation, and hardness. United Coatings™ Elastuff® coatings provide superior durability, dirt and mildew resistance, chemical resistance, and weatherproofing.

APPLICATION OPTIONS

The System consists of United Coatings™ Elastuff® 101 Base Roof Coating, which is an aromatic polyurethane base coat, and United Coatings™ Elastuff® 103 Roof Coating, which is a UV-resistant, color-stable aliphatic polyurethane top coat used to meet VOC regulations in specific areas.

UNITED COATINGS™ ELASTUFF® 120 COATING

United Coatings™ Elastuff® 120 Coating is a two-component, 100% solids ASTM Type V Butyl-polyurethane elastomer coating designed for protecting surfaces subject to abrasion under immersion or wet environments.

TYPICAL APPLICATIONS

United Coatings™ Elastuff® 120 Coating is used over a wide variety of vertical and horizontal primed concrete, steel, iron, wood, fiberglass, and polyurethane foam surfaces. Typical applications include interior tank lining, waste/water containment, sewer manholes, flumes, reservoirs, cooling tower basins, valves, interior pipes, and other areas subjected to aqueous chemical environments.

VERTICAL HOLD

The vertical hold attained by United Coatings™ Elastuff® 120 Coating gives it the ability to uniformly cover coarse or pitted concrete as well as weld seams, bolts, angles, edges, and other irregular surfaces. Film builds from 10–250 mils (254–6,350 microns) and beyond can be achieved in one coat using multiple pass spray technique.





UNITED COATINGS™ CANYON TONE STAIN®

United Coatings™ Canyon Tone Stain® corrects natural color imperfections in the substrate by imparting permanent color uniformity plus water repellency without disturbing the natural texture of the substrate.

DESIGN FRIENDLY

United Coatings™ Canyon Tone Stain® is available in a wide range of colors. Pigments used in toning standard colors are non-fading. These pigments are as durable as natural stone, and resist UV and ozone attack.

It utilizes a unique acrylic resin formulation that, together with its low degree of pigmentation and sheen, virtually eliminates lap marks under most application conditions. For new construction and restoration projects, this provides assurance that the coating will maintain a uniform appearance.

NOT A TYPICAL PAINT FINISH

United Coatings™ Canyon Tone Stain® forms an opaque film yet it is much thinner than typical paint finishes, allowing it to wear like the natural substrate. It will not peel, flake, or crack. United Coatings™ Canyon Tone Stain® is suitable for cast-in-place concrete, precast concrete, GRC concrete, masonry, and stucco substrates.

United Coatings™ Canyon Tone Stain® is a pure, high-quality stain that will meet performance and aesthetic requirements of the most challenging project.

UNITED COATINGS™ AQUATHON® WALL COATING

United Coatings™ Aquathon® Wall Coating is a flexible elastomeric that fills cracks and provides a smooth, opaque, watertight barrier for both painted and unpainted masonry surfaces. It is carefully formulated to remain flexible and allow for movement while providing high-quality waterproofing.

CRACK BRIDGING

United Coatings™ Aquathon® Wall Coating is a “crack bridging” elastomeric coating designed specifically for exterior walls. It is formulated with the highest-quality resins and raw materials to ensure a tough yet flexible mildew-resistant coating.

COLOR OPTIONS

An extensive color palette can be selected, and the coating is UV resistant to retain colorfastness for years.



UNITED COATINGS™ CANYONTONE™ CLEAR WALL COATING

United Coatings™ CanyonTone™ Clear is a silicone emulsion with reactive silane. It acts as a deep-penetrating concrete/masonry sealer and water-repellent treatment. By chemically locking into the substrate, United Coatings™ CanyonTone™ Clear provides a long-term, UV-stable protective repellent against the intrusion of moisture and chloride salts. Its microscopic penetration qualities allow a single coat application that imparts a clear, non-yellowing water-repellent treatment to concrete and masonry substrates without any noticeable change in color or surface sheen.



UNITED COATINGS™ ACRYSHEEN SEALER

United Coatings™ Acrysheen Sealer is a water-based penetrating sealer designed to produce a clear, semi-gloss surface sheen. The appearance will remain uniform, eliminating any blotchiness from water staining, even after years of service.

BREATHABLE

United Coatings™ Acrysheen Sealer’s low viscosity allows it to “wet in” and lock into the substrate. It will allow moisture vapor to escape from the building interior, yet provides excellent damp-proofing characteristics on the exterior. To a building owner, this provides assurance that while water will not get in, it can be released and therefore not trapped.

PROTECT AGAINST SPALLING

Deicing chemicals and salt commonly used to clear ice or snow from pedestrian walking surfaces can weaken concrete sidewalks and walkways, allowing moisture to penetrate. When this moisture freezes it expands, causing the concrete to chip or spall. United Coatings™ Acrysheen Sealer helps prevent this from happening by sealing the substrate, protecting the concrete against chemical attack and water penetration.

As part of our commitment to top-quality products, GAF supports the ongoing training and continuing education needs of the market. We have all the resources needed to help customers select and specify best-in-class applications for design plans and construction projects.

SEMINARS & PRODUCT DEMONSTRATIONS

GAF’s informative seminars and product demonstrations, held throughout the year, are offered in local, regional, and national formats to educate and train on the proper application and installation of our roofing systems, coatings solutions, and pavement coatings. Seminars provide attendees with a keen understanding of how to successfully promote and install the GAF family of products.

Sample topics and information covered include: proper application techniques, precision job material estimation and tear-offs, how to increase your productivity and decrease job material waste, and learning how to increase profitability using GAF solutions.

GAF also sponsors customized product demonstration events that feature individual products from our roofing systems, coating solutions, and pavement coatings family of products. Demonstrations are focused on proper product application and installation, aesthetic design, job site productivity, material estimation, and tear-offs.



AIA/CONTINUING EDUCATION

GAF provides Learning Unit hours (LUs) through the American Institute of Architects CES Program by offering “Lunch and Learns,” as well as product demonstration sessions. Learning Units can be earned either in-office, hosted by a GAF Technical Sales Representative, or online.

NETWORK OF PROFESSIONALS

GAF takes great pride in providing unmatched technical support. Our Technical team is committed to helping customers find the right solution for their next project. Strategically located in the markets they serve, Technical Sales Reps and Territory Managers are available to assist customers with specifying, selecting, and installing the product that best meets the need of their construction project.



R&D / TECH SUPPORT

Our Research & Development team is recognized as an industry expert in elastomeric polymer chemistry and protective coating technologies. Our laboratory maintains a full suite of testing equipment for determining the mechanical, chemical resistance, and weathering properties of coatings and coatings systems. Testing equipment includes a computer-controlled tensile tester, abrader, weatherometers, spectrophotometers, state-of-the-art environmental chambers with the ability to measure coatings cure over a wide range of temperatures and relative humidities, permeance testers, and viscometers for measuring coating “flow” for both brush/roll and spray applications. In addition, the laboratory is equipped with optical microscopy tools for examining coating film formation and defects. Attention to detail in our quality control lab assures our customers of receiving quality they can rely on with every batch.



FACILITIES

GAF is proud to invest in the future of the roofing industry. With extensive manufacturing facilities conveniently located across the United States, we’re increasing our manufacturing capabilities and expanding our services in order to serve our clients more efficiently and produce more industry-changing products than ever before.



ISO CERTIFICATION

GAF has earned ISO 9001 and ISO 14001 certifications. The ISO 9001:2008 quality management standards are recognized throughout the world. ISO 14001:2004 certification is an internationally recognized standard indicating a company has mitigated its environmental risks.



ABOUT GAF

Founded in 1886, GAF is the largest roofing manufacturer in North America. As the industry leader with over \$3 billion in sales, GAF proudly offers a comprehensive portfolio of award-winning, innovative roofing products for both steep-slope and commercial properties. Supported by an extensive national network of factory-certified contractors, GAF has built its reputation — and its success — on its steadfast commitment to Advanced Quality, Industry Expertise, and Solutions Made Simple.

GAF offers all major low-slope roofing technologies, including repair and maintenance products and roof restoration systems, as well as new roofing systems (BUR, modified bitumen, TPO, PVC, and composite systems). GAF has developed single-ply and asphaltic membranes with excellent durability and high reflectivity to meet the most rigorous industry standards while helping commercial property owners and designers reduce energy consumption.

For more information about GAF, visit gaf.com.



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