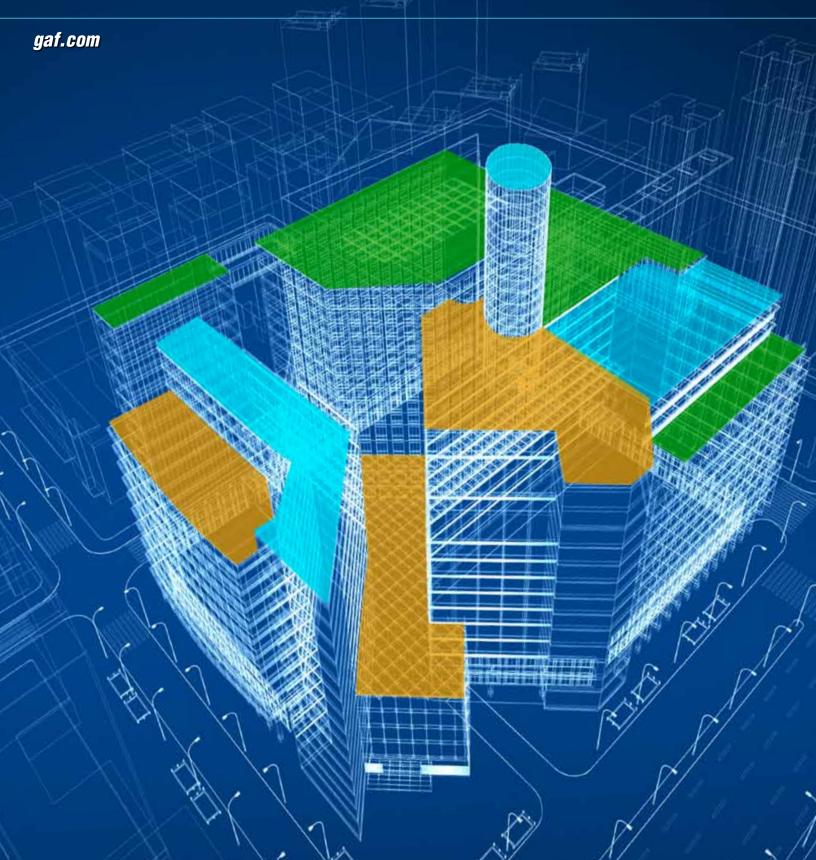


# ROOFING SYSTEMS SOLUTIONS

ASPHALTIC SINGLE-PLY LIQUID-APPLIED INSULATION



# **Quick Guide To GAF Roofing Systems**

hoosing the right roofing system for an application can be complicated. There are many roof membrane options, and each property may have its own set of unique requirements. So, how do you choose the right roofing system for your property?

#### **Choose The Right Company**

GAF is North America's largest roofing manufacturer. We manufacture products that provide more solutions than any other roofing manufacturer. We're not vested in a single technology; our broad product offering is designed to help you select a roofing system that is right for your property.

= Top Performance		ASPHALTIC ROOFING	
= Excellent Performance	<ul><li>Not Recommended</li></ul>	Ruberoid®/Liberty™ Modified Bitumen	GAFGLAS® Built_Up
= Good Performance	O = Not Available		Roofing
(Ratings based on GAF estimates	s and contractor interviews)	est affects i est	Maged
Typical Applications	Desired Characteristic	liberty, self-effect, which contributed	Castel Miller Stateed
Hospitals, telecom, police, fire, computer installations	Multi-Layered Membrane Protection		• • •
Warehouses, distribution centers, shopping centers	Flexes To Conform To Roof Movement		
Hospitals, telecom, police, fire, computer installations	Low Maintenance	6000	( 6 0
Hot climates, small business, institutional, government buildings	Light Reflective For Energy Savings	<b>1 0 0 1</b>	3
Hospitals, telecom, police, fire, computer	Puncture/Leak Resistant		
All informed owners seek this characteristic	Easy To Repair After Installation	• • • •	666
Hospitals, telecom, police, fire, computer	Heat Welded, Self-Adhered, Torched, Cold-Applied, Or Mopped Seam Strength		• • •
Manufacturing, hospitals, food processing, restaurants	Grease/Oil/Chemical Resistant <sup>1</sup>		
Buildings located in cold climates	Can Be Installed In Cold Weather	4 0 ( (	

<sup>&</sup>lt;sup>1</sup>See applicable GAF Guarantee for specific exclusions <sup>2</sup>Rating is for solvent-based products only

<sup>&</sup>lt;sup>3</sup>Requires the use of EnergyCap™ Products

<sup>&</sup>lt;sup>4</sup>May require that installation adhesive be pre-heated



#### **Choose The Right Roof To Fit Your Needs**

Listed below is a selection chart to help with some of the physical performance criteria of individual products, but there are other important considerations as well. Having a good understanding of your investment objectives (e.g., long term or short term), property use (e.g., the importance of aesthetics or amount of roof traffic), location (e.g., inner city or desert), and the overall building construction will help assure the best choice.

#### **Choose The Right Team To Work With**

GAF's commercial roofing team can guide you in system choice, preparation of design materials, construction details, specification preparation, and more! Contact GAF's Architectural Services Team at 1-800-522-9224 or see the back cover of this brochure for your local sales office.

	SINGLE-PLY ROOFI	LIQUID-APPLIED ROOFING						
CompositeRoof™ Asphalt Composite	EverGuard® TPO & EverGuard Extreme® TPO	Freedom <sup>™</sup> TPO	EverGuard® PVC	EverGuard® TriPosite XL™	TOPCOAT® Roof Restoration			
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• •	• • •	4	•	1 1	<b>L</b> <sup>2</sup>			

# **RUBEROID® Modified Bitumen Roofing**

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

#### **Applications...**

For premium, fire-rated systems, specify RUBEROID® Torch FR, RUBEROID® Mop FR, RUBEROID® SBS Heat-Weld Plus FR membrane.

Now available in an ENERGY STAR® qualified\*, CRRC rated version, EnergyCap™ 30FR, EnergyCap™ Torch Plus FR, and EnergyCap™ Torch FR combine the proven performance of RUBEROID® membranes with EnergyCote™, a pre-applied premium reflective TOPCOAT® white elastomeric coating.

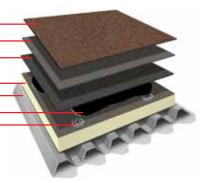
For standard applications, new or retrofit, as well as flashing and repairs to existing builtup roofs, GAF offers its proven RUBEROID® Torch membranes (smooth or granule surfaced), RUBEROID® Mop membranes (hot or cold applied), or RUBEROID® SBS Heat-Weld membranes (heat weldable).

For a two-ply modified bitumen system that is durable and economical, specify RUBEROID® 20/30FR (fiberglass-reinforced membrane).

RUBEROID® Torch Plus (Granule Surfaced) RUBEROID® Torch (Smooth Surfaced) GAFGLAS® Base Sheet

EnergyGuard™ Perlite Insulation

Cold-Applied Adhesive or Hot Asphalt-Drill-Tec<sup>™</sup> Fastener-



<sup>1</sup> All figures are approximate.

2 Refer to www.ul.com for

\* ENERGY STAR® only valid in the USA.

TYPICAL 3-PLY TORCH-APPLIED SYSTEM USING BUR BASE SHEET AND PREMIUM APP MODIFIED BITUMEN MEMBRANES

RUBEROID® Modified Bitumen Membrane Selection Guide	Mode	Torch ,	Colded	Maximum A	Member 1.5. 1966	Wombrano hichorano	Mat Poly (Mils), Fifte of the Color of the C	U An assignester	FW AD	FBC DVAIS	101	Miami	20)	FINERGY TO ADD	ASTM COMPILATION	specific approvals.  Refer to http://roofnav.fmglobal.com for specific approvals.  Guarantee duration based on installation by Factory- Certified Contractor in approved system
											<b>A</b>					T 10 1 6
RUBEROID® Torch (Smooth)		Y		15	0.8	153	Р	<b>*</b>		<b>Y</b>		Y	Y			Type I Grade S
RUBEROID® Torch (Granule)		•		15	1.0	177	Р	•	•	•	•	•	•		D6222	Type I Grade G
RUBEROID® Torch FR (Granule)		•		20	1.2	170	PP	•	•	•	•	•	•			Type II Grade G
RUBEROID® EnergyCap™ Torch Plus FR (Granule)		•		20	1.5	170	PP	•	•	•		•		•		Type II Grade G C1549, E408
RUBEROID® EnergyCap™ Torch FR (Granule)		•		15	1.0	160	Р	•	•					•	D6222	Type I Grade G C1549, E408
SBS																
RUBEROID® Mop (Granule)	•		•	15	1.0	140	Р	•	•	•	•	•	•		D6164	Type I Grade G
RUBEROID® Mop (Smooth) 1.5	•		•	20	0.9	90	Р	•	•	•	•	•	•			Type I Grade S
RUBEROID® Mop 170 FR (Granule)	•		•	15	1.0	155	Р	•	•	•	•	•	•			Type I Grade G
RUBEROID® Mop FR (Granule)	•		•	20	1.0	155	PP	•	•	•	•	•	•		D6164	Type II Grade G
RUBEROID® EnergyCap™ Mop FR				20	1.0	155	PP	•	•	•	•	•	•		D6164	Type II Grade G C1549, C1371
RUBEROID® 20 (Smooth)	•		•	15	0.6	85	F	•	•	•	•	•	•		D6163	Type I Grade S
RUBEROID® 30	•		•	15	0.9	140	F	•	•	•	•	•	•			Type I Grade G
RUBEROID® 30 FR (Granule)	•		•	15	0.9	140	F	•	•	•	•	•	•			Type I Grade G
RUBEROID® EnergyCap™ 30 FR (Granule)	•		•	15	1.0	140	F	•	•	•		•	•	•	D6163	Type I Grade G C1549, C1371
RUBEROID® Dual Smooth	•		•	20	1.0	138	P/F	•	•	•						Type II Grade S
RUBEROID® Dual FR	•		•	20	1.0	164	P/F	•	•	•		•				Гуре II Grade G
RUBEROID® Ultraclad™ Flashing (Metal Foil)	•	•		20	1.0	160	F(scrim)	•		•		•			D6298	
RUBEROID® Mop Plus (Smooth)	•		•	20	0.7	120	Р	•	•	•	•	•	•		D6164	Type II Grade S
RUBEROID® SBS Heat-Weld (Granule)		•		15	1.0	165	Р	•	•	•		•	•		D6164	Type I Grade G
RUBEROID® SBS Heat-Weld (Smooth)		•		20	1.0	165	Р	•	•	•		•	•		D6164	Type I Grade S
RUBEROID® SBS Heat-Weld 25		•		20	0.6	98	F	•				•	•		D6163	Type I Grade S
RUBEROID® SBS Heat-Weld 170 FR (Granule)		•		15	1.0	160	Р	•	•	•		•	•		D6164	Type I Grade G
RUBEROID® SBS Heat-Weld Plus		•		20	1.0	165	Р	•	•			•	•		D6164	Type I & Type II Grade G
RUBEROID® SBS Heat-Weld Plus FR (Granule)		•		20	1.0	165	PP	•	•	•		•	•		D6164	Type II Grade G
RUBEROID® EnergyCap™ SBS Heat-Weld Plus FR		•		20	1.0	165	PP	•	•	•		•		•	D6164	Type II Grade G E1549, C1371
See Low-Slope Product Data Guide and current Application & Specifications Manual for a complete list of products																

### Liberty<sup>™</sup> Self-Adhering

**Liberty**™Base/Ply Sheet Specifications (nom.)

- Roll length is 66 ft. (20.1 m)
- Roll width is 39.375 in. (1.0 m)
- Roll size is 2 squares, 216 sq. ft. (20.1 m²)
   FM Approved, UL Classified
   State of Florida Approved
   Miami-Dade County Approved

- Texas Dept. of Insurance (TDI)

#### **Liberty**<sup>™</sup>Cap Sheet Specifications (nom.)

- Roll length is 34 ft. (10.4 m)
- Roll width is 39.375 in. (1.0 m)
- Roll size is 1 square, 112 sq. ft. (10.4 m<sup>2</sup>)
- FM Approved, UL Classified
- State of Florida Approved
- Miami-Dade County Approved Texas Dept. of Insurance (TDI)

### **Liberty™ MA** Nailed Base Sheet Specifications (nom.)

- Roll length is 66 ft. (20.1 m)
- Roll width is 39.375 in. (1.0 m)
- Roll size is 2 squares, 216 sq. ft. (20.1 m2)

Most RUBEROID® products meet the physical requirements of ICC AC75.

- FM Approved, UL Classified
- State of Florida Approved
   Miami-Dade County Approved

### **GAFGLAS® BUR**



# "GAFGLAS® BUR helps to reduce installation costs while tackling the most demanding roof applications"

### Metric-Sized Rolls For Lower Installed Cost...

All GAFGLAS® Plies are produced in metric-width rolls, allowing faster application and resulting in lower installed cost.

**GAFGLAS®** Roofing Plies... incorporate the latest in fiberglass ply technologies for high tensile strength, dimensional stability, optimum porosity for air escape while mopping, excellent wind uplift resistance, UL Class A fire ratings, and a FM uplift rating up to Class 1-720 when solidly mopped to a primed, insulated structural concrete deck:

- GAFGLAS® FlexPly® 6 Ply Sheet premium-performing
- GAFGLAS® Ply 4



offer solutions for every application:

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



TYPICAL 4-PLY PREMIUM SYSTEM WITH STRATAVENT® ELIMINATOR, FLEXPLY® 6, FLOOD COAT, AND GRAVEL

#### **GAFGLAS® Mineral-Surfaced Cap Sheet...**

Surfacing options:

- GAFGLAS® Mineral-Surfaced Cap Sheet... Provides a UL Class
   A rating 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... Now a mineral-surfaced cap sheet with a pre-applied, highly reflective coating of EnergyCote™ Elastomeric Coating for the highly reflective membranes required by California's Title 24

GAFGLAS® Built-Up Roofing Materials Selection Guide	Maximum Guaranya A.	Nejor 1780/e	895/011,	Surface	U. An.	FW AD	Miansi	FBC MADAGE	101 Apple	201	8	454,5748 487M,800 800(S)
GAFGLAS® #75 Base Sheet	20	.185	3	Smooth	•	•	•	•	•	•		D4601 Type II
GAFGLAS® #80 Ultima™ Base Sheet	20	.303	2	Smooth	•	•	•	•	•	•		D4601 Type II
GAFGLAS® STRATAVENT® Eliminator™ Nailable Base Sheet	20	.55	1.25	Granule	•	•	•	•	•	•		D4897 Type II, D3672
GAFGLAS® STRATAVENT® Eliminator™ Perforated Base Sheet	20	.53	1.25	Granule	•	•	•	•		•		D4897 Type II, D3672
PLY SHEETS												
GAFGLAS® Ply 4	12	.06	5	Smooth	•	•	•	•	•	•		D2178 Type IV
GAFGLAS® FlexPly® 6	20	.063	5	Smooth	•	•	•	•	•	•		D2178 Type VI
SURFACE SHEETS GAFGLAS® Mineral-Surfaced Cap Sheet	20	.63	1	Granule	•	•	•	•				D3909
GAFGLAS® EnergyCap™ Mineral-Surfaced Cap Sheet	20	.73	1	Granule	•	•	•	•			•	D3909, C1549, C1371

'All weights and sizes are approximate. <sup>2</sup> Refer to www.ul.com for specific approvals. <sup>3</sup> Refer to http://roofnav.fmglobal.com for specific approvals.

For technical information, visit our website at www.gaf.com or call 1-800-ROOF-411 (1-800-766-3411). Most GAFGLAS® products meet the physical requirements of ICC AC75. Contact Technical Services for specific listings.

# **GAF CompositeRoof**<sup>™</sup> Systems



"GAF CompositeRoof™ Systems exhibit exceptional strain energy for long-lasting, reliable roofing system performance"

# The strength of BUR, the flexibility of modified bitumen...

GAF continues its tradition of innovation with GAF CompositeRoof™ systems that can:

- Combine the strength of premium GAFGLAS® built-up roofs with the elongation and flexibility of RUBEROID® Modified Bitumen Membranes
- Exhibit tensile strengths up to 300 lbf/in and strain energies as high as 70 lbf-in/in<sup>2</sup> at 0°F!

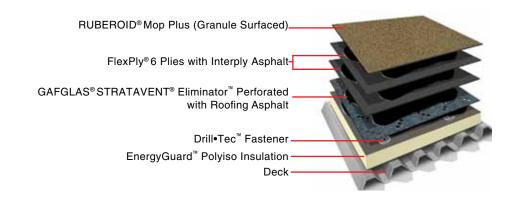
Every GAF CompositeRoof™ System includes at least:

- One ply of premium GAFGLAS® BUR for strength
- Three total layers of roofing plies/ membranes for system redundancy and long-term reliability
- The use of at least one layer of polyester-reinforced RUBEROID® Modified Bitumen Membrane to ensure superior flexibility and elongation characteristics

For example, Specification I-2-1-MGP provides more than 10 times the elongation at 0°F of typical built-up roofing.

#### Exceptional strain energy...

GAF CompositeRoof™ Systems far exceed either BUR or modified bitumen systems in strain energy, one of the most advanced measures of mechanical performance. This combines the measurement of tensile strength and elongation in a single parameter to indicate whether a roof system has the tensile strength necessary to withstand normal roof stresses and the elastomeric properties to accommodate normal building movement.



TYPICAL 4-PLY MOP-APPLIED SYSTEM USING PREMIUM BUR AND SBS-MODIFIED BITUMEN MEMBRANES

### **Typical Strain Energy Chart**

SYSTEM	(lbf-inch/inch²@0°F)
GAF CompositeRoof <sup>™</sup> Systems	45
4 plies of Type VI fiberglass	9
2 plies fiberglass-reinforced mop-applied MB membranes	5
Base Sheet and torch-applied MB Membrane	12



# **TOPCOAT®** SeamFree™ Roof Restoration Systems

"Protects and maintains new roofing systems & restores deteriorating low-slope roofs"





Superior, SeamFree™

Protection... Originally designed specifically for the renovation and waterproofing of existing metal roofing, the TOPCOAT® System is one of today's most advanced—and most relied upon roofing restoration systems. TOPCOAT® also offers a full line of membrane systems to restore most existing low-slope roof types, including BUR, modified bitumen, and EPDM. TOPCOAT® is a liquid-applied synthetic rubber, installed in several stages to form a flexible, SeamFree™ membrane over the entire roof. It protects, is fully adhered to the existing roof surface, is highly elastic, and bonds tightly to most substrates:

- Stays flexible to -30°F after curing
- Standard reflective white can reduce roof surface temperatures up to 60°F\*
- Available in 9 standard and 7 preformulated colors, and unlimited custom colors
- Backed by a comprehensive system warranty up to 20 years on metal roofs

It's the premier solution for the most complex and demanding installations:

- Innovative SeamFree™ construction means no laps to separate or cause leakage
- Exceptional flexibility and value
- A versatile solution for the protection of new roofs and the problem of aging roofs

#### The Industry Standard...

TOPCOAT® has become an industry leader through strict and consistent adherence to the highest quality standards. Our chemists work closely with research and testing facilities, such as FM Approvals and Underwriters Laboratories, to develop standards for the retrofit of metal and low-slope roofing. In addition, our sales and technical teams have been trained, not only in every detail of the TOPCOAT® system, but in the construction of roof restoration systems as well. Nationally, the TOPCOAT® Roofing System is installed by a network of trained professional roofing contractors.

#### **TOPCOAT® Systems Reduce Your** Roofing Life Cycle Costs...

An effective roof maintenance program combined with a TOPCOAT® restoration system can greatly reduce life cycle costs for most roofing systems.

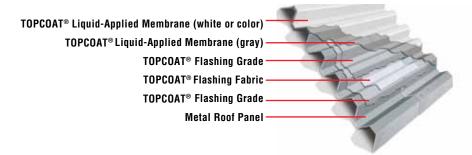
**Energy Savings...** Several independent testing facilities agree that a long-term reflective roof can decrease cooling costs by as much as 21% per year, or more! TOPCOAT® is an ENERGY STAR® qualified product, is Title 24 compliant, and meets the stringent standards set by the Cool Roof Rating Council for solar reflectance and thermal emittance. TOPCOAT®'s ENERGY STAR® qualified Roof Membrane is rated as providing an initial reflectivity of 85%, and 3-year studies show that the TOPCOAT®

membrane exceeds the ENERGY STAR® program's minimum reflectivity by over 40%—thereby reducing the surface temperature of a roof by as much as 60°F when compared to a typical black low-slope roof. TOPCOAT®'s exceptional resistance to dirt pick-up, combined with regular standard roof maintenance, will ensure a highly reflective surface for the life of the roof system.

FireShield® Roof Restoration **System...** Provides maximum fire protection and energy savings instantly. The patent-pending technology of FireShield® is formulated to provide maximum fire protection, increase a roof's reflectivity, and protect the roof substrate from harmful ultraviolet rays. Building fires cause property damage in excess of \$12 billion and claim the lives of more than 3,000 innocent victims annually.\*\* Regrettably, combustible roofing systems play a part in these tragedies. As North America's largest roofing manufacturer, we take fire safety seriously. That's why we've developed FireShield®, the first "self-extinguishing" roof restoration system. Special fire-resistant ingredients in the product react with heat and fire, causing a chemical reaction to occur. A noncombustible carbon char layer is formed that retards the flame propagation by reducing available oxygen.

\*Depending on location of facility.

\*\*Source: National Fire Protection Association and USFA, 2003 data.



LIQUID-APPLIED POLYMER MEMBRANE SYSTEM (TYPICAL METAL APPLICATION)

For More Information About Cool Roof Products, Visit Green Roof Central™ at www.gaf.com/green

To locate an authorized contractor, call your local regional office (see back cover)

visit www.TOPCOAT.com

# **EverGuard® Single-Ply Roofing Systems**



"EverGuard® Systems are your best and safest choice in single-ply roofing"

If you are a facility manager, building owner, architect, or roofing contractor who has experienced the advantages of single-ply roofing systems, you owe it to yourself to consider **EverGuard® Single-Ply Roofing Systems** from GAF.

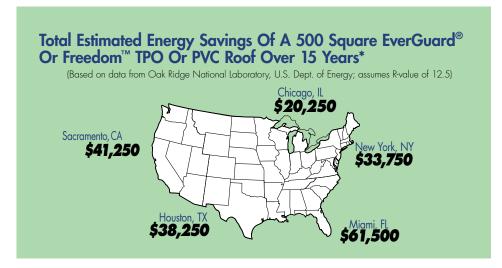
GAF thermoplastic membrane options include:

- EverGuard® TPO... combines the weatherability of EPDM with the reflectivity and seam strength of PVC—at a price you'll love. (To save time, EverGuard® Freedom™ TPO Self-adhering Membranes make installation easy and save you time and money.)
- EverGuard Extreme® Advanced Protection® TPO... offers exceptional performance in all applications, including high heat and solar.
- Freedom™ Self-adhering TPO Membranes... with RapidSeam™ technology combine the superiority of EverGuard® TPO Membrane with a factory-applied adhesive. RapidSeam™ technology has taken self-adhered membranes to the next level, offering a 6″ self-adhering seam and providing factory-applied adhesive for superior strength.
- Freedom™ HW TPO... combines the convenience of selfadhered membranes with a traditional heat-welded seam, so where heat-welded seams are desired, both Freedom™ HW and EverGuard® TPO can now be considered.
- **EverGuard® PVC...** offers the advantages of heat-welded seams and high reflectivity, plus superior resistance to chemicals, oils, and greases.

#### When You Figure In The Hidden Energy Savings, White EverGuard® TPO And PVC Systems Significantly Reduce Your Roofing Life Cycle Costs!

With a lifetime average solar reflectance of 65%, EverGuard® and Freedom™ TPO and PVC Membranes can reduce the surface temperature of your roof by as much as 60°F (versus a typical black roof).\*\* This can translate into big savings on utility costs over the life of the roof—as much as \$30,000 or more, depending on where your facility is located. More and more facility owners are asking themselves, "Why get saddled with an energy-wasting black roof when I can install an energy-efficient EverGuard® or Freedom™ TPO or PVC roof instead?"

Depending on your location, an energy-saving EverGuard® TPO or PVC roof could offset as much as 30, 40, 50% or more of the original cost to install the roof!



To calculate the savings in other cities, visit the Oak Ridge National Laboratory website at: <a href="http://www.ornl.gov/sci/roofs+walls/facts/CoolCalcEnergy.htm">http://www.ornl.gov/sci/roofs+walls/facts/CoolCalcEnergy.htm</a>

For technical information, visit our website at www.gaf.com or call 1-800-ROOF-411 (1-800-766-3411)

To locate an authorized contractor, call your local regional office (see back cover)

<sup>\*</sup>Energy savings estimates are based on energy and fuel cost data provided by ORNL website at the time of print and does not take into consideration energy cost fluctuations over time. Assumptions used in the savings calculations include: R-value of 19; infrared emittance of 90; COP of 2; solar reflectance of 76%; average heating system efficiency. The results are examples—type of building, geographical locations, and your exact energy/fuel costs as well as other factors must be considered for your specific situation.

<sup>\*\*</sup>Depending on location of facility.



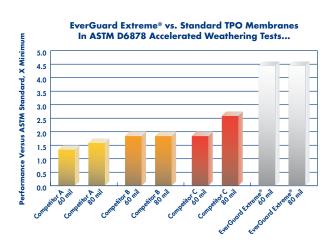
### **Product Spotlight:**

#### EverGuard Extreme® TPO Delivers Advanced Protection For Your Property

EverGuard Extreme® is a breakthrough (patent-pending) in TPO roofing membrane technology. It not only results in next-generation performance against heat aging and UV degradation (the two key performance characteristics directly related to roof system longevity), but also exceeds all key ASTM standards for TPO membranes. Why settle for standard TPO when you can get the advanced protection of EverGuard Extreme® TPO for your property?

#### EverGuard Extreme® Far Exceeds The Performance Of "Standard" TPO Membranes

Standard TPO roofing sold today simply cannot match the performance of EverGuard Extreme<sup>®</sup>. It uses a proprietary formulation of stabilizers and UV absorbers to achieve performance levels far beyond current roofing standards. To prove it, we tested EverGuard Extreme<sup>®</sup> against other standard TPO membranes for the two key performance attributes most-highly sought after in TPO membranes: **heat aging** and **UV weathering**. The results were astounding—which is why we back EverGuard Extreme<sup>®</sup> with the industry's best guarantees: up to 35 years!





### **See The Proof...**

Even after the most severe accelerated heat aging at 280°F, EverGuard Extreme® TPO still looks brand new!

EverGuard Extreme® TPO (bottom of membrane)

But, a leading competitor's standard TPO shows severe deterioration on both the top and bottom of the membrane.



# **EverGuard® & Freedom™ TPO Systems**



"Solutions for superior performance and value"

# EverGuard® TPO & EverGuard Extreme® TPO with Drill•Tec™ Fasteners...

- Reliable low-cost installation
- ASAP Plate/Fastener combinations speed-up install
- No fumes or solvents
- RhinoBond® Non-Penetrating Fastening System option available

# AdvantagesLightweightLow Cost

- FL -LL A
- Flexible Application

#### Maximum Guarantee<sup>†</sup>

- EverGuard® TPO 25 years
- EverGuard Extreme® TPO 30 years

### -EverGuard® or EverGuard Extreme® TPO

-Drill•Tec™ Insulation Fastener & Plate(s) -Drill•Tec™ Fastener & Membrane Plate(s)

-EnergyGuard<sup>™</sup> Polyiso Insulation -Structural Deck

# MECHANICALLY ATTACHED (IN-LAP ATTACHMENT)†

#### Membrane Type

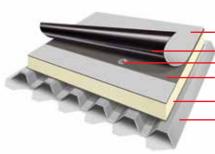
- EverGuard® TPO: 45, 60, 80;
   Polyester scrim-reinforced smooth-faced membrane
- EverGuard® TPO: FB-45, FB-60, FB-80; Polyester scrimreinforced fleece-backed membrane
- EverGuard Extreme® TPO: 50, 60, 70, 80

#### Freedom™ TPO With Heat-Weld Technology...

- Saves time, saves money, easy to install
- Installs much faster\* than a taped EPDM seam application
- Eliminates adhesive solvent flash time required in traditional adhered systems
- No volatile organic compounds (VOCs)

# Freedom™ TPO With RapidSeam™ Technology...

- Easy to install, saves time, saves money
- Installs much faster than taped EPDM seam application, no adhesive flash, up to 5 times faster than water-based adhesives, and up to 3 times faster than solvent-based adhesives (depending on outside temperature)
- Twice the peel strength\* of conventional EPDM Butyl taped systems



EverGuard® Freedom™ TPO
Self-Adhered Membrane
Factory-Applied Adhesive
-Drill•Tec™ Insulation Fastener & Plate(s)
-Heatweld or RapidSeam™
Self-Adhered Seam
-EnergyGuard™ Polyiso Insulation
-Structural Deck

#### SELF-ADHERED FACTORY-APPLIED BUTYL ADHESIVE OR HEAT-WELD<sup>†</sup>

#### Advantages

- Lightweight
- Flexible Application
- Excellent Wind Resistance

#### Maximum Guarantee<sup>†</sup>

• 20 years

#### Membrane Type

- Freedom™ TPÓ with RapidSeam™ 45, 60
- Freedom™TPO HW 45, 60, 80

<sup>\*</sup>See EverGuard® Specification Manual and 2012 Technical Points & Observations for system requirements.

<sup>&</sup>lt;sup>†</sup> See the published GAF application instructions for complete installation details and guarantee coverage.



#### EverGuard® TPO, EverGuard Extreme® TPO, & EverGuard® Bonding Adhesives...

- Provide enhanced wind uplift
- Low polluting (low VOC) and water-based adhesive provide environmentally friendly roofing options
- Fleece-back membrane and low-rise foam adhesive provide rapid install and near zero VOC—perfect for schools & healthcare facilities



# FULLY ADHERED SYSTEMS (BONDING ADHESIVE)†

#### Advantages

- Lightweight
- Low To Moderate Cost
- Enhanced Wind Resistance

#### Maximum Guarantee<sup>†</sup>

- EverGuard® TPO 30 years
- EverGuard Extreme® TPO 35 years

#### Membrane Type

- EverGuard® TPO: 45, 60, 80; Polyester scrim-reinforced smooth-faced membrane
- EverGuard® TPO: FB-45, FB-60, FB-80; Polyester scrim-reinforced fleece-backed membrane
- EverGuard Extreme® TPO: 50, 60, 70, 80

#### TriPosite XL™...

- Combines the reflectivity of TPO with redundancy of an asphaltic system
- Durable long-term guarantee system



### TriPosite XL" (ADHERED SYSTEM WITH BITUMINOUS ASSEMBLY)†

#### Advantages

- High Strength
- Durable, Redundant Assembly
- Long-Term Value
- Re-cover Systems Available

#### Maximum Guarantee<sup>†</sup>

• 25 years

#### Membrane Type

 EverGuard® TPO: FB-45, FB-60, FB-80; Polyester scrim-reinforced fleece-backed membrane

<sup>&</sup>lt;sup>†</sup> See the published GAF application instructions for complete installation details and guarantee coverage.

# **GAF EnergyGuard™ Roof Insulation Products**

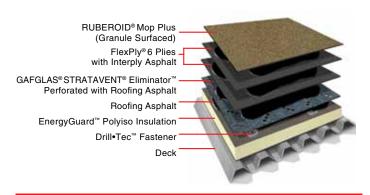
"Economy and exceptional thermal performance for all types of roofing systems"

### EnergyGuard™ Polyiso Insuation and Tapered Polyiso Insulation

- Designed for use in practically any low-slope roofing application including BUR, mod bit, and single-ply systems
- High insulation value Superior "LTTR" value compared to any other FM Class I rated product of equivalent thickness at 6 per inch
- EnergyGuard<sup>™</sup> roof insulation board is made of glassfiber-reinforced cellulosic felt facers bonded to a core of polyiso foam
- Manufactured with EPA-compliant blowing agents containing no CFCs or HCFCs; has zero ozone depletion potential (ODP) and virtually no global warming potential (GWP)
- Available in a variety of thicknesses from .5" to 4.0" to best suit your needs
- Available in 4'x4' and 4'x8' boards
- Tapered panels are also available in slopes of 1/16", 3/16", 1/8", 3/8", 1/4", and 1/2"

#### **EnergyGuard™ Perlite Insulation and Tapered Perlite**

- Composed of expanded perlite particles, selected binders, and cellulose fibers, which provide its insulating efficiency
- Treated surface helps assure proper adhesion to roof membranes
- Designed for use in BUR, mod bit, & some single-ply systems
- Available in 3/4", 1", 1.5", and 2" thicknesses
- Tapered boards available to improve drainage
- Available in ½" recover boards for use over existing roofs
- Cant strips also available to provide a smooth transition from horizontal to vertical surfaces



TYPICAL 4-PLY MOP-APPLIED SYSTEM USING ENERGYGUARD™ POLYISO INSULATION

#### **EnergyGuard™ Polyiso Composite Insulation**

- The excellent insulating qualities of polyiso foam are combined with the strong surface characteristics of ½" high density fiberboard or ½" perlite on one side while the other side is made of glassfiber-reinforced cellulosic felt facers
- The fiberboard or perlite side is able to receive hot-mopped roof membranes

GAF Roof System Insulation Compatibility Guide

	,			80	, Ille	
Product  EnergyGuard™ Pa	Composition <b>Diviso</b>	Built-Up Roofing	Modified Bitumen	Sing Aghered	Mechanically Single of	Single of Physics
Flat	Polyiso foam with organic/glass facer	<b>↓</b> 1	<b>1</b>	•	•	•
Tapered	Polyiso foam with organic/glass facer	<b>↓</b> <sup>1</sup>	<b>↓</b> 1	•	•	•
Re-cover	Polyiso foam with organic/glass facer	<b>→</b> <sup>1</sup>	<b>◆</b> <sup>1</sup>	•	•	•
EnergyGuard <sup>™</sup> Po	olyiso Composite					
Flat	Polyiso foam, perlite and organic/ glass facer	•	•	•	•	•
Tapered	Polyiso foam, perlite and organic/ glass facer	•	•	•	•	•
EnergyGuard <sup>™</sup> Pe	erlite Insulation					
Flat	Perlite	•	•		•	•
Tapered	Perlite	•	•		•	•
Re-cover	Perlite	•	•		•	•
Cant/Edge	Perlite	•	•			

Some membrane systems may require a cover board or the use of STRATAVENT® Eliminator™ Perforated Base Sheet. Check with membrane supplier for code and warranty requirements.

# **GAF Roofing Accessories**



"A single supplier for all your roofing components means a single source for accountability"

### **METALASTIC®** Expansion Joint Covers

"Reduce field splices—and risk of leaks"

Field splices are one of the most notorious leak sites on the roof. GAF has designed the most flexible group of expansion joint covers in the industry. Available in 50' rolls, or customized up to 250' rolls in black or white, Metalastic® Expansion Joint Covers eliminate splice joints every 10' and promote trouble-free roofing system performance. Substantially reduces the contractor's installation labor, thereby reducing overall installed cost.



Splice failure on competitor's product



Metalastic® Cover in continuous length run



CMF Style Curb-to-Curb style expansion joint profiles



LP Style
Low Cant-to-Cant or Cant-to-Wall
expansion joint profiles



CTW Style Curb-to-Wall style expansion joint profiles



SMF Style Cant-to-Cant or Cant-to-Wall expansion joint profiles

# M-Weld® Pre-Flashed Drainage & Moisture-Control Accessories

"Provides a uniform finished look for the roof while improving the reliability of penetration flashings"

**M-Weld** Pre-Flashed Accessories... are one-piece roofing detail assemblies that can be used with modified bitumen and built-up roofing systems. These accessories are flashed with either an APP modified bitumen (for use with torch-applied membranes) or an SBS modified bitumen (for use on built-up roofs and mop- or cold-applied SBS applications). Available for use in a variety of different roofing applications, Pre-Flashed Accessories include:

- Vents... pre-flashed standard vents and pre-flashed one-way vents
- Drains... pre-flashed drains (regular roof drains) and pre-flashed scuppers (through-wall drains)
- Penetrations... pre-flashed adjustable vents, pre-flashed plumbing vents, and M-Curbs, which are structural urethane outer shells bonded to the roof surface and filled with 2" thick urethane rubber sealant





### **TOPCOAT® MATRIX™ Asbestos-Free Adhesives, Cements & Coatings**

"Asbestos-free formulations are your safest choice"

GAF offers a complete line of premium, asbestos-free modified adhesives, cements, and coatings. Specially formulated for use with RUBEROID® Cold-applied SBS Modified Bitumen Membranes and other GAF systems, TOPCOAT® Matrix™ SBS Adhesive and SBS Flashing Cement are compatible with SBS membranes from most other manufacturers as well

- Cold-applied roofing systems offer a great opportunity on many roofs where use of torches and kettles is not safe or practical.
- Repairs of hot or cold-applied SBS
   Modified Bitumen roofs are easier with
   TOPCOAT® Matrix™ SBS Flashing Cement
   and SBS Adhesives.
- Unlike lower-cost coatings, TOPCOAT®
   Matrix™ products include a complete
   SeamFree™ membrane system that
   restores your roof, provides energy saving reflectivity, and is backed by
   comprehensive warranties.

#### **Cements:**

201 Premium SBS Flashing Cement

202 SBS Flashing Cement

203 Plastic Roof Cement

204 Wet/Dry Roof Cement

#### Adhesives:

102 SBS Membrane Adhesive 103 Cold Process Adhesive

#### **Coatings:**

303 Premium Fibered Aluminum Roof Coating

304 Non-Fibered Aluminum Roof Coating

305 Fibered Asphalt Emulsion

306 Non-Fibere'd Asphalt Emulsion

307 Premium Asphalt Primer

322 Elastomeric Roofing Coating

#### Liquid Flashing:

TOPCOAT® Matrix MajorSeal™ Liquid Flashing



### Lexsuco® Flashing, Vapor Retarders & Water Barriers

"Takes the guesswork out of flashing repair"

- Metal Edge (ME) Flashing
- Black/White (B/W) Flashing
- Reinforced (RF) Flashing
- Lexsuco® Vapor Retarder, a 4-mil black vinyl sheet with a perm rating of 0.5
- Permate Vapor Retarder, an asphaltimpregnated kraft paper with fiberglassreinforced edges and a perm rating of 0.23
- Lexsuco® Water Barrier, a high-quality flexible PVC plastic sheet for moisture barrier applications in unexposed locations, such as below grade or behind and beneath other building components

Metal Edge Flashing

Black/White Flashing

Reinforced (RF) Flashing









### **EverGuard® Pre-Fabricated Accessories**

"Boost productivity up to 200%, reduce total installed cost by up to 25%, and eliminate common problems often associated with field-fabricated details"

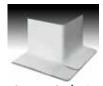
#### EverGuard® TPO Pre-Fabricated Accessories











**Fluted Corner** 

**Split Pipe Boot** 

**Corner Curb Wrap** 







RTA Strip

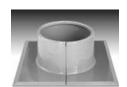


**Standing Seam Profile** 

#### EverGuard® PVC Pre-Fabricated Accessories







**Pitch Pocket** 



**Inside Corner** 



**T-Joint Patch** 



**Fluted Outside Corner** 

Not Pictured: 6" x 150' Detail Strip, Coated Metal, Cut Edge Sealant

### **Drill**•Tec<sup>™</sup> Fasteners

For mechanically fastened roof system components, Drill•Tec™ Fasteners are engineered to exacting specifications to provide easy installation, corrosion resistance, and system compatibility with virtually any membrane or substrate.

- Tested for compliance with FMRC standards 4450 & 4470
- Available with factory-applied Drill

  Tec™ CR-10 coating to ensure resistance to corrosion in even the most severe conditions

"Broad range of fastening options for all systems"



# **Superior Guarantees For Quality Systems**

Years of proven quality allow GAF to offer roofing system guarantees on Modified Bitumen, Built-Up Roofing, GAF CompositeRoof™, EverGuard®, and TOPCOAT® Roofing Systems. GAF Diamond Pledge™ No-Dollar-Limit (NDL) and System Pledge™ Roof Guarantees are available from 10 years up to 20 years. Maintenance is critical to optimize your roof's performance. The GAF CMP (Certified Maintenance Professional) program is the best way to ensure your roof's longevity. Material-only warranties are also available on GAF products. Guarantee extensions of up to 25% are available with GAF WellRoof® Guarantee Extension. Contact Guarantee Services for details.









# Master Roofing Contractor Programs

Choosing the right roofing system, one supplied by the right materials manufacturer, supported with the right guarantee, and—most important—installed by the right contractor, is essential for the protection of the owner's facility. Through its Master Roofing Contractor Programs, GAF has aligned with key professional roofing contractors throughout the United States to ensure the quality installation and long-term performance of all Diamond Pledge™ and System Pledge™ guaranteed systems. Selection of a Master or Master Select™ Roofing Contractor to install a GAF system will result in the cost-effective, on-time roofing solution that you demand, while maintaining superior quality and performance.

### gaf.com – Your Resource For Complete Product Data

GAF's 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!

### **Full-Service Technical Support**

To assist the architect and specifier from design through installation, the GAF Roofing System Solutions CD-ROM contains information on all the GAF commercial products and systems. GAF's Contractor 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 our website at **gaf.com** or call our toll-free **Technical Hot Line, 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: **1-800-522-9224**.



# Regional Offices

For the location of the closest GAF distributor or factorycertified contractor, call the nearest GAF regional office.

#### Central

900 S. Frontage Road, Suite 350 Woodridge, IL 60517 630-296-1980

#### **Northeast**

700 Second Street, Suites C & D Swedesboro, NJ 08085 856-241-0241

#### Southeast

13361 N. 56th Street Tampa, FL 33617 813-829-8880 866-714-5350

#### Southwest

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

#### West

11800 Industry Avenue Fontana, CA 92337 951-360-4200 800-445-9330

#### **Service Contacts**

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