

**REQUEST FOR BIDS**  
**NO. 2017-011**  
**CITY HALL ROOF REPLACEMENT**

**EXHIBIT C**  
**(Product Information Sheets)**

# Product Information Sheets



## *Gaithersburg* **A CHARACTER COUNTS! CITY**

Prepared by  
NIKA Architects + Engineers  
For  
**City of Gaithersburg**

## **Architectural Cutsheets**

**SLATE COMPOSITE  
CERTAINTEED  
SYMPHONY  
COMPOSITE SLATE TILE**

# Technical Data Sheet

## Symphony™ Slate



### PRODUCT INFORMATION

CertainTeed's Symphony synthetic slate is an innovative roofing product simulating the appearance, texture and contours of traditional natural slate. It is a carefully engineered polymer composite roofing product designed for beauty, durability, and easy-handling. Symphony is contractor friendly – simple to install and at a fraction of the weight and cost of slate.

**Colors:** Symphony is available in three widths – 6", 9" & 12", and in six colors – light, medium & dark gray, light & dark green and plum. Symphony is also available in pre-blended color blends in 12" width: Colonial Gray, Capital Blend, and Evergreen.

### Limitations:

- Existing roofing material must be torn off prior to application; apply Symphony to a clean dry deck. Roof-overs are not permitted.
- Do not apply Symphony to roof slopes below 3:12.
- Low slope roofs from 3:12 through 5:12 the following conditions must be met:
  - Install CertainTeed WinterGuard™ Waterproofing Underlayment or equivalent waterproofing underlayment product over the entire roof deck. (Note: Ensure that adequate ventilation meeting or exceeding local code requirements is installed.)
  - Apply Symphony at a 6" exposure.
- At slopes greater than 5:12, Symphony can be applied at consistent exposures of 6" to 8" (maximum), in ½" increments.
- It is not recommended to apply Symphony at temperatures below 15° Fahrenheit.
- IMPORTANT:** Installation contractor is responsible for checking and following all local building codes and requirements.

**Product Composition:** Symphony consists of an innovative durable composite polymer material.

**Applicable Standards:** For all approved exposures of 6" – 8", unless otherwise noted.

ASTM E108, Class A Fire Resistance\*\* –. (Note: Class A Fire Resistance requires use of CertainTeed fiber glass All Weather/Empire™ Base Sheet or an equivalent product meeting ASTM D4601 Type II or WinterGuard HT or MetaLayment).

ASTM D3161, Class F Wind Resistance  
 UL 1897 Wind Uplift Resistance, -82.5 PSF  
 UL 2218 Class 4 Impact Resistance  
 ICC-ES Evaluation Report ESR-3000  
 Energy Star Rated  
 CA Title 24, Part 6: Meets prescriptive SR requirement (aged SR > 0.20)  
 USGBC LEED®-NC

Canadian CCMC Approval 13448-R  
 TDI Roofing Evaluation RC-232  
 Miami-Dade Product Control Approved  
 Florida Product Approval # FL12924

Symphony Color Blend Name	CRRC Rated Initial SR	CRRC Rated Initial TE	CRRC Product ID No.	ASTM E408 Initial TE	Initial Solar Reflective Index (SRI)*	Energy-Star Rated
Capital Blend	0.26	0.90	0668-0065	0.94	29	YES
Colonial Gray	0.26	0.90	0668-0066	0.94	29	YES
Evergreen	0.31	0.90	0668-0067	0.94	35	YES

\*Solar Reflective Index (SRI) is calculated by ASTM E1980, using ASTM E408 TE data. Roofing shingles with SRI ≥ 29 can qualify for a USGBC LEED®-NC Urban Heat Island point.

### Technical Data: (Typical values)

- Shingle size: The typical shingle is nominal 12" wide x 18" tall dimension including the side-to-side spacing nibs. Shingles are also available in 9" and 6" widths.
- Shingle exposure options of 6.0", 6.5", 7.0", 7.5" and 8.0".
- 25 shingles per bundle for the 12 inch width blends.
- 150 shingles per square at 8" exposure.
- 6 bundles per square at 8" exposure.

Technical Data Continued: (Typical values)

- 6 squares per pallet (36 bundles) at 8" exposure for the 12 inch width blends.
- Typical pallet weight is 1350 lb/pallet. Each pallet holds 36 bundles of roofing shingles for the 12 inch width blends.
- Symphony is also available as a pre-formed hip and ridge product with a nominal 12" wide x 18" tall dimension and has exposure options of 6.0", 6.5", 7.0", 7.5" and 8.0". Symphony Hip and Ridge is packaged 15 pieces to a bundle, giving 10 linear feet of coverage with an 8.0" exposure. One bundle of Symphony Hip and Ridge weighs 18.75 lb.
- Contact CertainTeed's Technical Services Department at (800) 345-1145 for additional information.

**INSTALLATION**

Roof Deck Requirements:

- Symphony must be installed over a solid wood substrate. Plywood and oriented strand board (OSB) decking must comply with specifications outlined by the APA-Engineered Wood Association. Acceptable wood decking materials are minimum 3/8" thick plywood, minimum 7/16" OSB, and nominal 1" thick tongue and groove wood planks, or nominal 1" thick wood decking no wider than 6".

Ventilation:

- Ventilation should meet or exceed current local building code requirements.

Valleys and Flashing:

- CertainTeed WinterGuard or equivalent waterproofing underlayment product is required as an underlayment beneath the metal valley.
- Open or "closed" valley systems may be used. Whether installing an open or "closed" valley, valley metal is required and must be no less than 24" wide. Valley and flashing metal must be a minimum of 16-oz copper or 26-gauge corrosion resistant metal such as stainless steel, painted galvanized steel, color clad steel or color clad aluminum. Use same metal type cleats or fasteners as valley metal.
- For open metal valleys, either a "W" valley or a double "W" valley with hemmed outside slater's edge is acceptable. Apply Symphony 2" or more from the valley centerline. Cut 2" off the top valley side corner of a Symphony shingle at a 45-degree angle to help divert water back into the valley. A double "W" valley has metal bent in the centerline direction to look like a "V" with a "W" diverter on either side, 2" from the centerline. Cut pieces should be laid against the "W" diverters on either roof side edge.
- For "closed" metal valleys, use a "W" valley, a standing seam center crimp design, or a classic "V" bend metal valley design. Apply cut Symphony to within 1/4" of the center diverters or the centerline.
- Always fasten Symphony 6" or more from the valley centerline. Always overlap valley metal at joints by at least 4".
- Metal step-flashing size minimums are 4" up a side wall, 4" across the headlap portion of an applied shingle course and 14" up on the roof slope (4" x 4" x 14").

Underlayment:

- Use CertainTeed WinterGuard™ Waterproofing Underlayment or equivalent waterproof underlayment in the valleys, along rake and eave edges, under half-piece hip and ridge caps, around chimneys, skylights, and other roof penetrations as necessary.
- A minimum of #30 organic felt underlayment meeting ASTM D226 Type I or equivalent should be used to cover the roof deck areas that are not covered by WinterGuard or equivalent waterproof underlayment.
  - Note: For UL Class A Fire Resistance use CertainTeed fiber glass All Weather/Empire Base Sheet.

Fastening:

- Recommended fasteners (nails or screws) must penetrate at least 3/4" into wood decking or at least 1/8" through plywood or OSB sheathing, but in no case shall the fastener be less than 1-1/2" in length.
- Fasteners must be corrosion resistant, and higher quality fasteners such as electro galvanic (for non coastal areas), stainless steel, hot dipped galvanized, solid copper, brass or aluminum are recommended in order to comply with the full warranty duration for Symphony. Fasteners such as 11-gauge nails with 3/8" (10 mm) head, No. 8 or No. 9 brass flathead Phillips, square drive screws or similarly sized stainless steel screws are acceptable. Where additional holding power is desired, use screws or ring shank fasteners. Do not over- or under-drive fasteners.

- Staples are not allowed.
- Symphony has a dimpled nail pocket location for correct positioning of fasteners and ease of hand-nailing. Two fasteners per shingle are required, one placed in each of the nail pockets or within 1" of a cut edge in a non-exposed location.
- A fastener length of 2" is recommended for application of preformed hip and ridge pieces.

#### General Application

- The applicator-friendly design of Symphony includes spacer tabs, exposure marks, alignment marks (for left- and right-hand applications) and nail pockets.
- Symphony can be applied like traditional quarried slates with a straight or staggered bottom edge application, and with a half-piece offset (6"), or 5" or 4" offset with textured headlap show-through. It is recommended that side-edge to side-edge offset, regardless of shingle width, should not be less than 3".
- Tear off of the existing roofing material is required prior to application; apply Symphony to a clean dry deck following installation of the appropriate underlayment (i.e., roof-overs are not permitted.)
- If desired, apply standard drip edge or flared gable metal to eaves and rakes.
- Do not apply Symphony to roof slopes below 3:12 (a 3" rise for every horizontal run of 12").
- For roof slopes from 3:12 through 5:12 the following conditions must be met:
  - Apply Symphony at a 6" exposure.
  - CertainTeed WinterGuard or equivalent waterproofing underlayment product must be installed over the entire roof deck. (Note: When the entire roof deck is covered with a waterproofing underlayment, be sure to provide adequate ventilation.)
- On slopes over 5:12, Symphony can be applied with a greater exposure, but not in excess of 8".
- WinterGuard HT or an equivalent waterproof underlayment product may be used in place of traditional hidden hip and ridge metal flashing. It can be applied either as a continuous length, centered 8"-10" wide strip on the hip or ridge line and under the hip and ridge pieces or in place of individual flashing pieces. Overlap WinterGuard joints 4"-6" along the ridge line.

#### Hip and Ridge Application

- Symphony can be complemented with an available pre-formed full piece 12" x 18" hip and ridge product, available in 2 different pitch profiles; a shallow angled profile for hips and roof pitches less than 7:12 and a shaper angle for pitches 7:12 and higher.
- Hip and ridge can also be applied using one of the traditional half-piece application techniques that are typical for real slate applications, such as the saddle, comb, or mitered, with flashing covering the unexposed portion. Symphony 6" x 18" rake accessory shingles are ideal for this application. These pieces can be used as right-handed and left-handed sides, applied on either side of the hip or ridge line. Minimum two fasteners per piece.
- Alternative hip and ridge applications including – a minimum 16-oz. copper or metal lineals of 26-gauge corrosion resistant metal such as stainless steel, color clad steel, color clad aluminum, or metal ridge vent in a complementary color – are also acceptable for hips and ridges. Metal joint overlap should not be less than 4".

#### MAINTENANCE

Symphony slates require virtually no maintenance when installed according to manufacturer's application instructions. However, to protect the investment, any roof should be routinely inspected at least once a year. Older roofs should be looked at more frequently.

#### WARRANTY

For specific warranty details and limitations, refer to the warranty itself (available from the local supplier, roofing contractor or on-line at [www.certainteed.com](http://www.certainteed.com)).

#### FOR MORE INFORMATION

Sales Support Group: 800-233-8990

Web site: [www.certainteed.com](http://www.certainteed.com)

CertainTeed Corporation  
 Roofing Products Group  
 P.O. Box 860  
 Valley Forge, PA 19482

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 Patents Pending

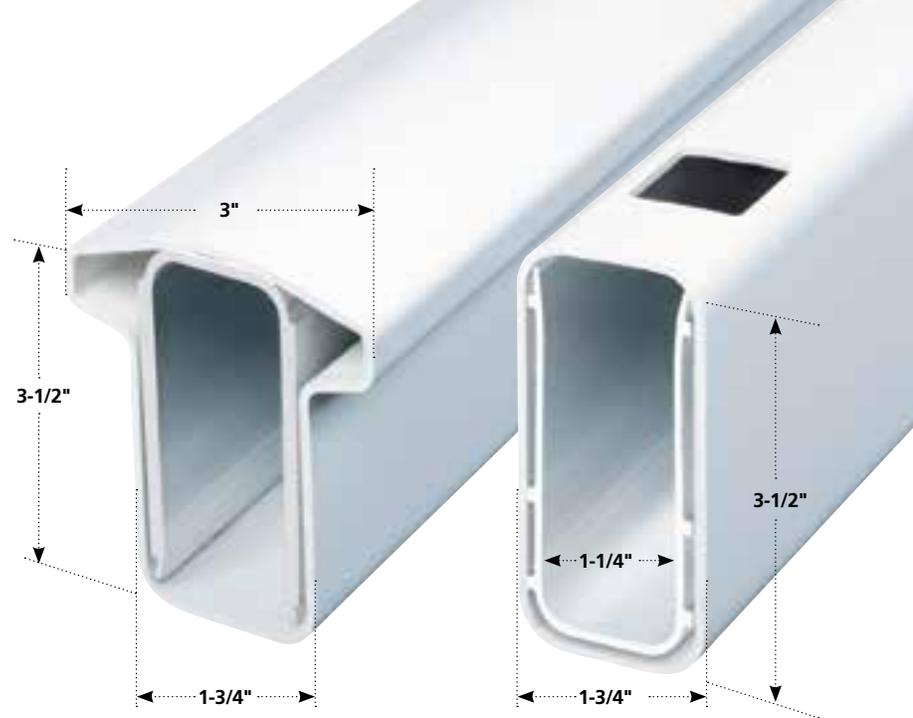


**VINYL RAILING  
CERTAINTED OXFORD  
VINYL RAILING**



Oxford with colonial balusters in white  
EverNew Vinyl Decking in gray

## VINYL ROUTED RAILING SYSTEM

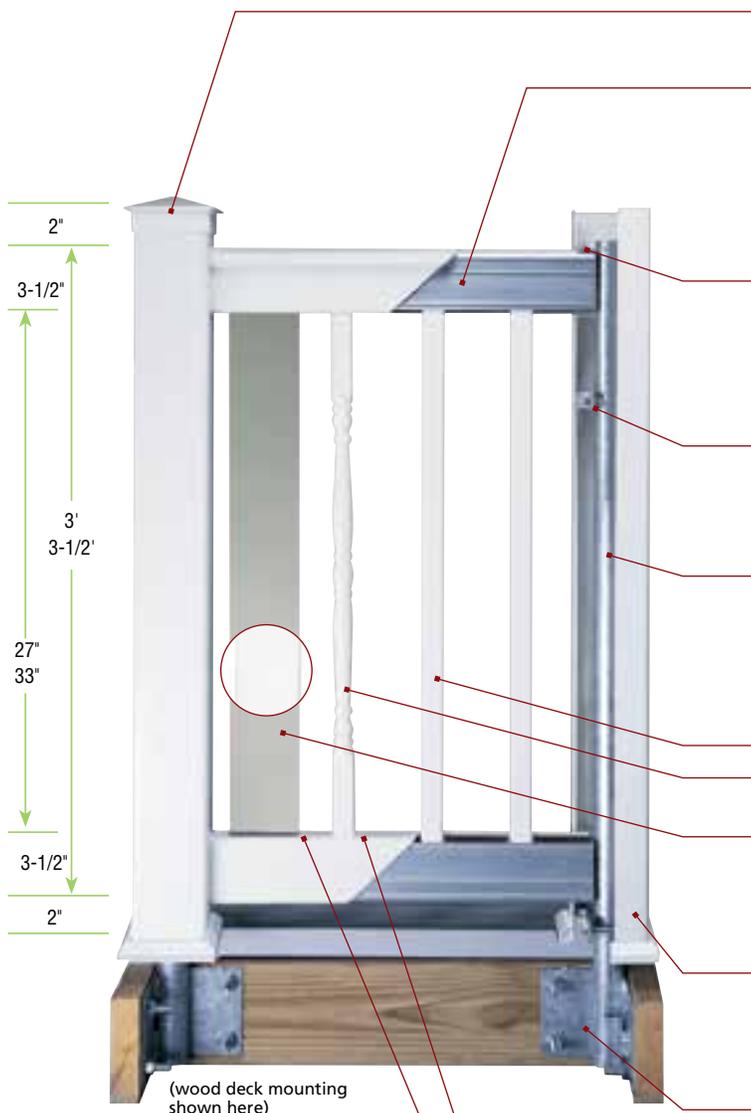


For safe, secure vinyl railing applications, there's no better choice than the Oxford routed system. The routed Oxford system features a unique internal rail-to-post connection and hidden hardware, so there are no unsightly brackets to detract from the look of the railing. The aluminum reinforced rail connects to a sturdy galvanized post support kit inside the routed post, for a completely concealed metal-to-metal connection.

- ◆ "T"-rail top and 2 x 4 bottom rail with hidden hardware system
- ◆ Aluminum reinforced rail connects to sturdy galvanized steel post support kit inside the routed post
- ◆ Posts routed specifically for all post applications
- ◆ Available in two heights and three lengths
- ◆ Available in three colors: white, almond and clay
- ◆ Choice of three baluster styles: square, colonial and glass
- ◆ Suitable for residential and commercial applications – including multifamily and over three story installations
- ◆ Canadian railing code compliant up to 8' span for exterior guard rail system for one- and two-family dwellings
- ◆ Independent tested as designated in report CCRR-0187
- ◆ Meets IBC standards for building safety
- ◆ Class A flame-spread rating
- ◆ Lifetime limited transferable warranty with 5-year SureStart™ protection



Oxford with square balusters in white



## Post caps and trims

## Aluminum reinforced top and bottom rail\*

- 6' and 8' lengths standard in flat, stair and steep stair
- 10' lengths standard in flat and stair

## Rail plate

- Made of stainless steel
- Screw flange secures top rails inside post
- Oval cut out works for all flat and stair applications

## E-Z Set brackets

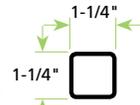
- Made of aluminum
- Keeps post square and snug

## Sturdy post support pipe

- Hot-dipped galvanized steel
- 1-5/8" outside diameter

## Baluster styles

- Square
- Colonial (white and almond only)



## 4" tempered glass baluster infill

- Clear available in 3-1/2' only
- Smoked available in 3-1/2' only

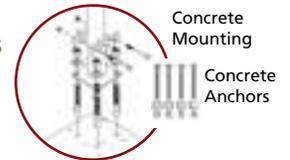


## Weather-resistant vinyl post sleeve

- Square available in 3' and 3-1/2' heights

## Secure post mounting systems

- Post support kits provided for both wood and concrete applications



## Hardware options for concrete post support kit

- Self leveling kit for concrete post support kits; ideal for ramps
- Stainless steel hardware kit for the concrete post support kit is also available to deliver improved corrosion resistance. Ideal for coastal climates



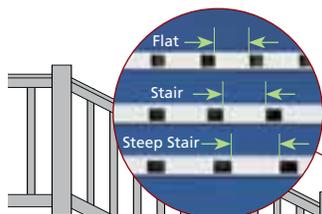
## Attractive precision-fit components

## Baluster hole spacing

- Top and bottom rails are routed to accept 1-1/4" x 1-1/4" balusters
- Stair baluster spacing is wider to account for racking

## Stair/step section

- Post center spacing on diagonal: 6' section covers 68" at 32°
- 8' section covers 90" at 32°, 10' section covers 117" at 32°
- 6' section covers 71" at 42°, 8' section covers 96" at 42°

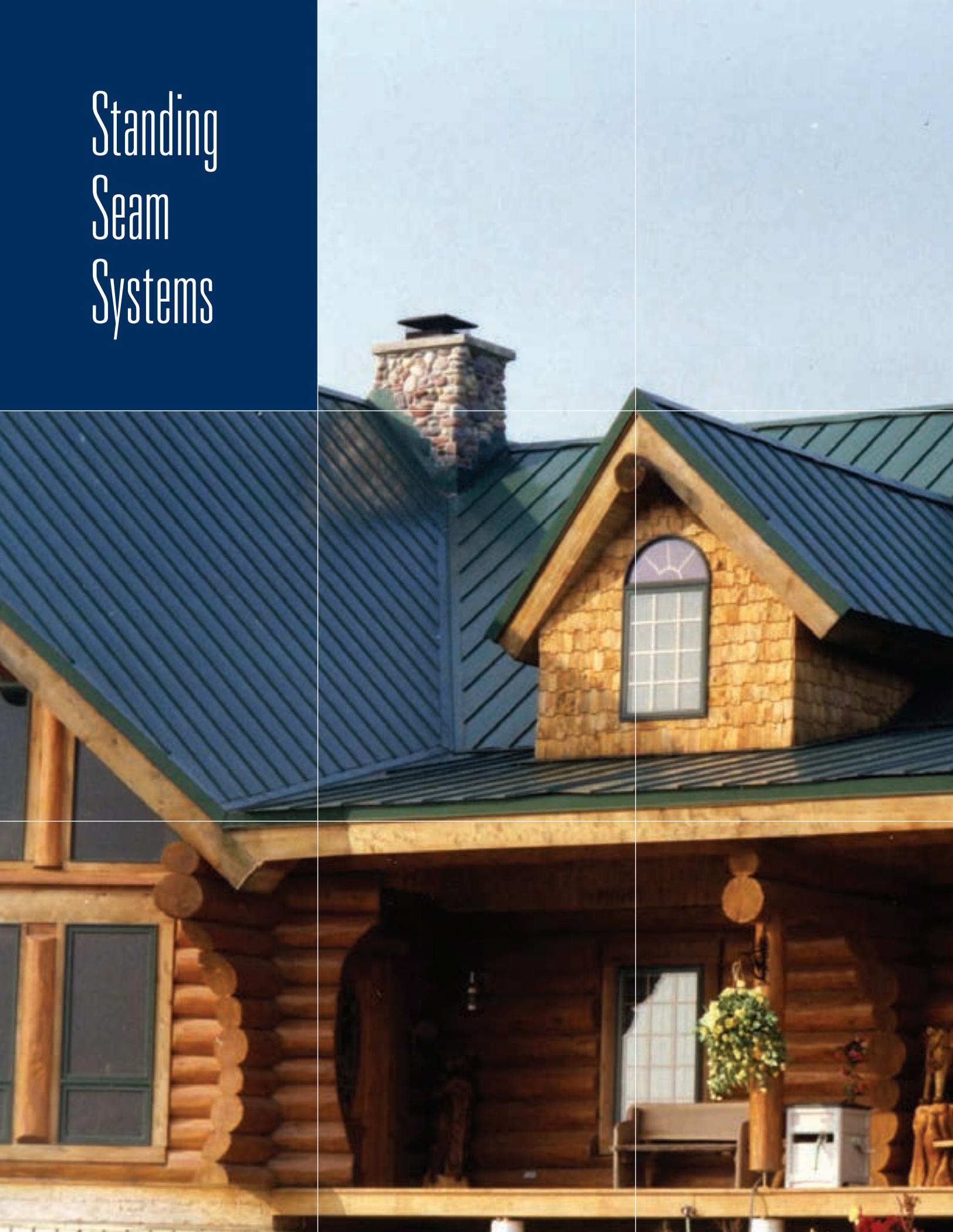


Standard: 25° min–37° max  
Steep stair: 37° min–42° max

\*Refer to product matrix for actual product specifications.

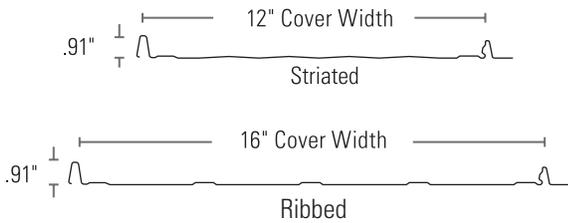
**STANDING SEAM  
MCELROY METAL  
INSTALOC ROOF**

# Standing Seam Systems



# Meridian

Meridian is an economical, snap-together roofing system that is an excellent choice for commercial and residential applications. Panels are simply installed by placing pancake head fasteners in the panel's slotted flange. Meridian is installed over solid deck.



## Details

- Factory formed eave notch upon request
- Minimum slope: 3:12
- Must be installed over solid deck

## Panel Options

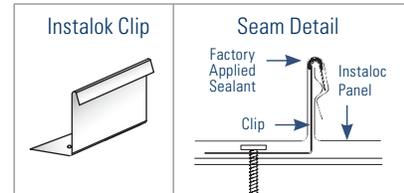
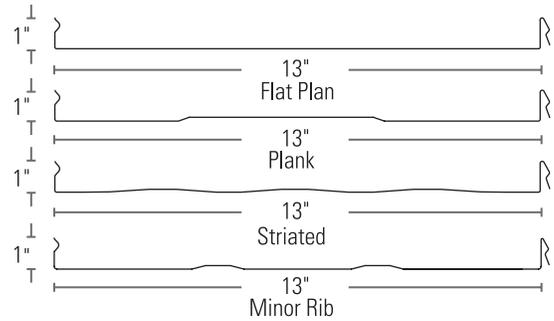
- Panel width: 12" and 16"
- Panel configurations: 16" ribbed or striated, 12" ribbed or striated
- Coating: Kynar 500®
- Substrate:
  - Standard 26 gauge Galvalume for 16" panels only
  - Standard 24 gauge Galvalume for 12" and 16" panels

## Testing Data

- Fire Rating: Class A
- Air Infiltration: ASTM E1680
- Water Infiltration: ASTM E1646
- Class 4 Impact Resistance: UL 2218
- Texas Department of Insurance Approval: Evaluation RC-34
- Florida State Approval: 2358.1
- Test Data is available via the download section at [www.mcelroymetal.com](http://www.mcelroymetal.com)

# Instaloc

Instaloc is a snap-together standing seam that features a 1" seam and is installed with concealed clips. Instaloc is an excellent selection for applications where greater uplift characteristics are required than achieved with Meridian.



## Details

- Minimum Slope: 3:12
- Must be installed over solid deck

## Panel Options

- Panel width: 13" standard. Other widths available upon request
- Panel configurations: striated, flat pan, plank and minor rib
- Coating: Kynar 500®

- Substrate:
  - Standard 24 gauge Galvalume

## Testing Data

- Fire Rating: UL Class A
- Uplift Test: UL 580, UL 1897
- Class 4 Impact Resistance: UL 2218
- Texas Department of Insurance Approval:
  - RC-93 (17 3/4" width only)
  - RC-86 (13" only)

Oil canning (pan wave) is a natural occurrence in metal panels and is not a cause for panel rejection.



# McElroy Metal, Inc.

## METAL ROOF AND WALL PANELS

### Architectural Colors



**REGAL WHITE**

**HISTORIC FLAT ROOF**



**SANDSTONE**



**SURREY BEIGE**



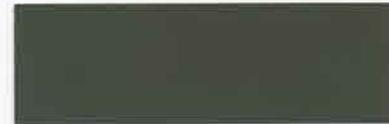
**MANSARD BROWN**



**ASH GRAY**



**SLATE GRAY**



**CHARCOAL**



**MATTE BLACK**



**MEDIUM BRONZE**



**DARK BRONZE**



**PATINA GREEN**

**ALL REMAINING  
EXISTING STANDING  
SEAM ROOFS**



**EVERGREEN**



**ROMAN BLUE**



**COLONIAL RED**



**BUCKSKIN**



**REGAL BLUE**



**HARTFORD GREEN**



**TERRA COTTA**



**LEADCOAT**



**WEATHERED GALVALUME**



**COPPER PENNY METALLIC**



**TEXAS SILVER METALLIC**



**CHAMPAGNE METALLIC**

ALL COLORS ARE ENERGY STAR COMPLIANT



# PAINT SPECIFICATIONS



## PRODUCT DESCRIPTION

Fluropon coating systems consist of primer, applied at a nominal dry film thickness of .25 mil, & a color coat, applied at a nominal dry film thickness of .75 mil. Some custom colors may require additional coats, such as a clear top coat and/or a barrier coat. Some aggressive environments may require additional coats, such as a clear top coat and/or a thick film primer.

Contact McElroy Metal for suggested specification. Fluropon® coatings are factory applied, oven-baked finishes based on polyvinylidene fluoride resin (Kynar 500® or Hylar 5000®). Fluropon coatings are manufactured by Valspar, 701 S. Shiloh Road, Garland, TX 75042-7812.

## PERFORMANCE

Fluropon coatings on steel meet or exceed U.S. Army Corps of Engineers Section 07413 Metal Roofing & Siding requirements. Test results reported here are for G90 HDG. Detailed test results are available upon request from McElroy Metal.

## MATERIALS

Standard: Galvalume Steel

Optional: Aluminum

The colors represented here are standard Kynar 500® or Hylar 5000® based colors offered by McElroy Metal. Custom color matches are available for an additional charge. Please contact McElroy Metal for price and delivery information. Metal panel samples and color chips are available for final color approval. All colors shown are within the limits of color chip reproduction.

KYNAR 500 is a registered trademark of Arkema, Inc.  
 HYLAR 5000 is a registered trademark of Solvay Solexis.  
 FLUROPON is a registered trademark of The Valspar Corp.

COLOR	INITIAL SOLAR REFLECTANCE	EMISSIVITY VALUE	SOLAR REFLECTIVE INDEX (SRI)	LEED ELIGIBLE STEEP SLOPE	LEED ELIGIBLE LOW SLOPE
Ash Gray ★	0.39	0.84	41	yes	no
Buckskin ★	0.38	0.86	41	yes	no
Champagne Metallic ★	0.38	0.80	38	yes	no
Charcoal	0.32	0.85	32	yes	no
Colonial Red ★	0.33	0.85	34	yes	no
Copper Penny Metallic	0.49	0.85	55	yes	no
Dark Bronze ★	0.26	0.84	24	no	no
Evergreen ☼	0.26	0.84	24	no	no
Hartford Green	0.25	0.85	23	no	no
Leadcoat ★	0.37	0.82	38	yes	no
Mansard Brown ★	0.30	0.85	30	yes	no
Matte Black ☼	0.27	0.86	26	no	no
Medium Bronze	0.30	0.87	31	yes	no
Patina Green ★	0.46	0.85	51	yes	no
Regal Blue ☼	0.26	0.85	24	no	no
Regal White ★	0.68	0.86	82	yes	yes
Roman Blue	0.26	0.85	24	no	no
Sandstone ★	0.54	0.86	63	yes	no
Slate Gray	0.43	0.85	47	yes	no
Surrey Beige ★	0.40	0.86	43	yes	no
Terra Cotta ★	0.35	0.87	37	yes	no
Texas Silver Metallic ★	0.58	0.78	66	yes	no
Weathered Galvalume ★	0.30	0.79	27	yes	no

★ Energy Star Compliant

☼ Cool Roof formulation available. (May be subject to an additional charge.)

### FLUROPON PROPERTIES: ACCELERATED TESTS

Gloss at 60°	ASTM D-523	25-35 (standard)
Pencil Hardness	ASTM D-3363	HB-2H
Flexibility (T-Bend)	ASTM D-4145	OT-2T
Flexibility (Mandrel, Method B)	ASTM D-522	No Cracking
Adhesion (Rev. Impact & Crosshatch)	ASTM D-3359	No adhesion loss
Abrasion (Falling Sand)	ASTM D-968	50-80 liters
Mortar Resistance	AAMA 2605 (7.7.2)	No effect
Detergent Resistance	ASTM D-2248	No effect
Acid Pollutants (Muriatic Acid)	ASTM D-1308	No effect
Acid Pollutants (Sulfuric Acid)	ASTM D-1308	No effect
Acid Fog	KESTERNICH	10 cycles minimum
Alkali Resistance	ASTM D-1308	No effect
Salt Fog (5% salt fog at 100°F)	ASTM B-117	Passes 1,000 hours
Humidity (100% relative at 100°F)	ASTM D-2247	Passes 2,000 hours

### FLUROPON PROPERTIES: WEATHERING TESTS (FLORIDA EXPOSURE, 10 YEARS)

Color Retention	ASTM D-2244	Max. 5 units change
Chalk Resistance	ASTM D-4214-89, Test Method A	Max. Rating of 8
Film Erosion Rate	Avg. mil erosion at 10 years	<0.1 mils

## **COPPER RIDGE CAP**

## Ridge Cap

Products custom made to order

Ridge caps are designed to cover the top of a roof along its ridge line. They can be used on metal roofing systems as well as shingle or slate roofs.

These items are always custom fabricated, therefore can be **custom made to any profile, angle, size** and many different materials. Also, there is the option of venting a ridge cap, or fabricating it with a round top. These item's usually measure 10' in length but can also be bent in 12' lengths. We can also match any profile.

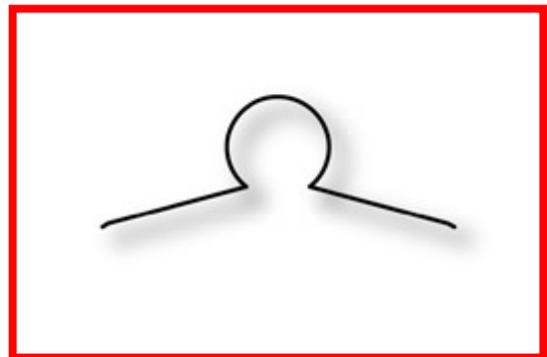
Riverside also manufactures custom [j-channels](#) needed for installation in some cases. Riverside provides Ridge Cap flashing metal to general contractors, roofers and do-it-yourself home owners. Special pricing available for large quantities.

See images for installation method examples.

Riverside also offers installation services throughout New England



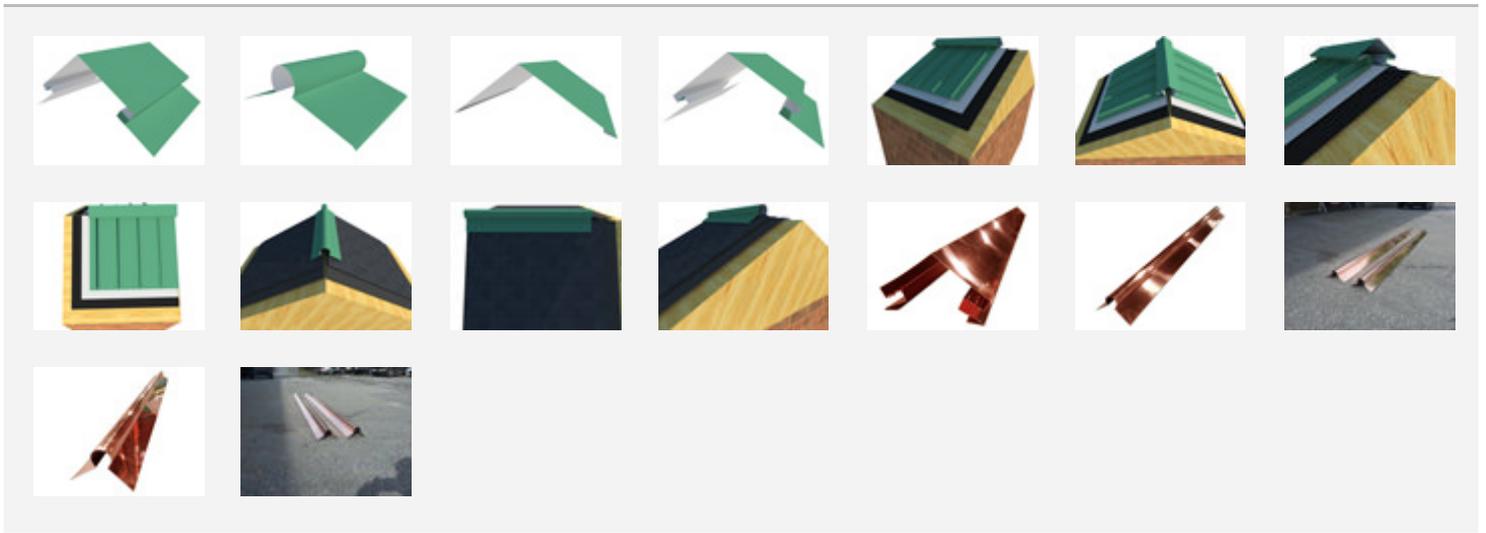
Ridge cap example  
**10'-12' lengths**



Ridge cap example  
**10'-12' lengths**



Ridge cap example  
**10'-12' lengths**



Ridge cap flashing metal is commonly fabricated with these materials:

[REQUEST A QUOTE](#)



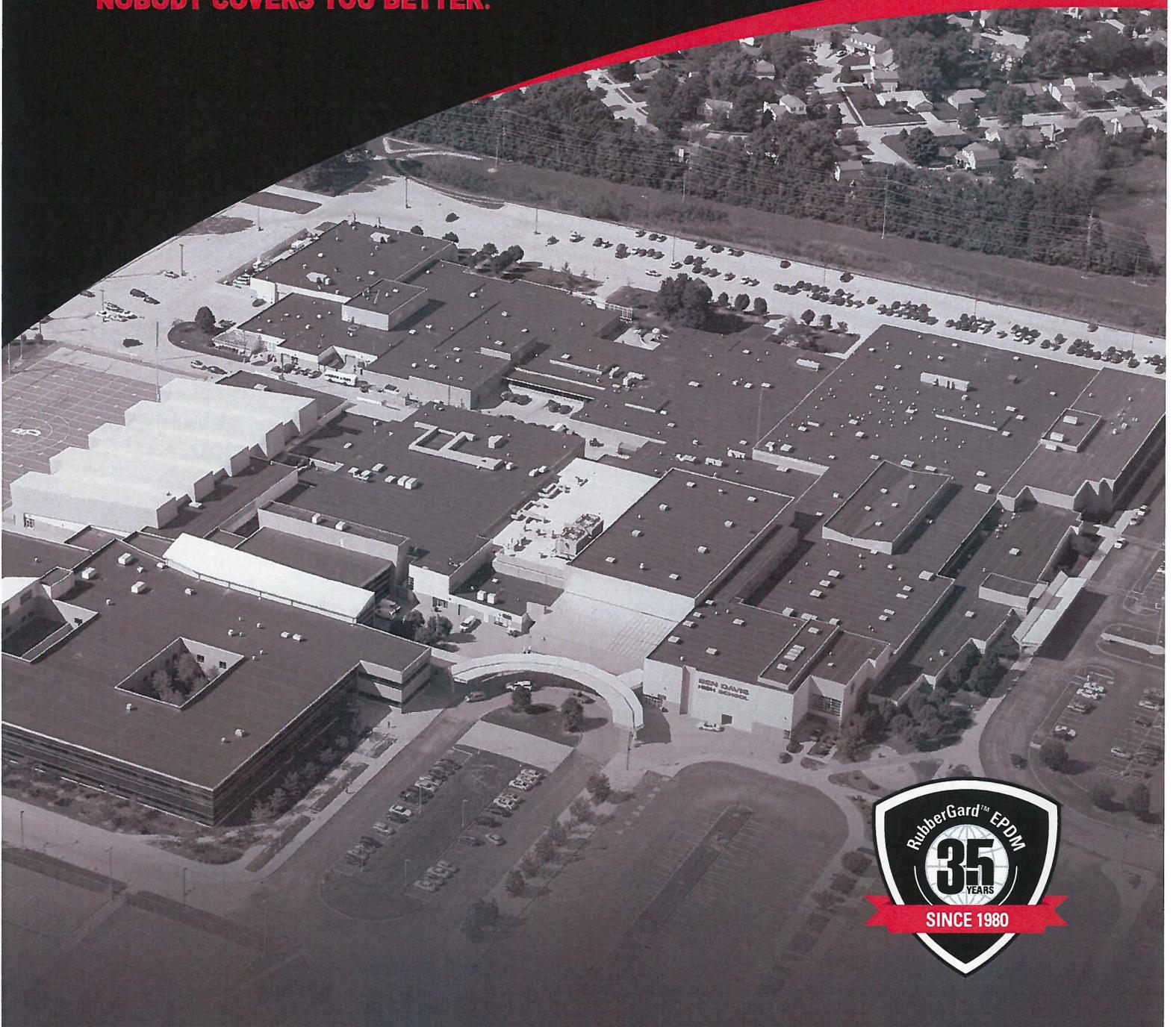
[Click here for a full list of colors and materials](#)

### Edge Metal and Flashing Metal fabrication & installation Gallery



# **EPDM ROOFING**

**Firestone**  
BUILDING PRODUCTS  
NOBODY COVERS YOU BETTER.™



# Firestone RubberGard™ EPDM Products

EXPERIENCE A PRODUCT THAT STANDS THE TEST OF TIME.



## Firestone RubberGard™ EPDM

### Exceptional building performance starts at the top.

With more than 35 years in EPDM roofing, Firestone Building Products has a proven track record of manufacturing products with **superior durability, flexibility and UV resistance**. Firestone's synthetic rubber compound is the foundation for RubberGard EPDM, the industry's premium-grade EPDM roofing membrane (available in both white and black).

From office buildings and distribution warehouses to hospitals and schools, RubberGard EPDM delivers **outstanding, long-lasting performance** in all climates worldwide.

Don't just cover your roof; guard it with Firestone's RubberGard EPDM membranes.

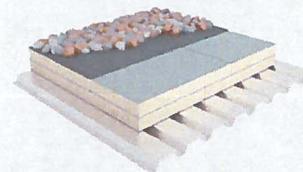
### RUBBERGARD EPDM SYSTEM OPTIONS

Fully Adhered  
RubberGard EPDM



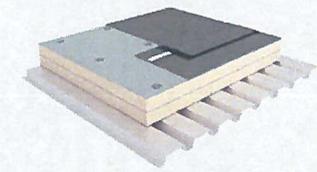
- Available in black or white
- Popular choice for new construction and re-roofing
- Ideal where ease of inspection and maintenance are important
- Can be installed on high-slope roofs (e.g., barrels and vaults)

Ballasted  
RubberGard EPDM



- Features large roofing panels (up to 50' x 200') covered with pavers or smooth, washed stone
- Fast coverage and economical installation
- Ideal for stores, offices and warehouses
- Aesthetically pleasing appearance

Mechanically Attached  
RubberGard EPDM



- Accommodates a wide variety of roof configurations
- Popular choice for re-roofing
- Can be designed to meet special requirements by increasing wind uplift resistance

# TOP FIVE BENEFITS OF RUBBERGARD EPDM



## SUPERIOR DURABILITY

- Exhibits outstanding resistance to UV radiation, ozone and weathering
- Offers excellent low-temperature properties and longer service life



## RAPID AND EASY INSTALLATION

- Available in widths from 5–50' and lengths up to 200'
- Requires fewer seams and less installation time compared to other single-ply membranes



## LOWEST LIFE CYCLE COST

- Little or no maintenance required
- 35+ years of proven service life of membrane = one of the lowest roof life cycle costs



## HIGH FLEXIBILITY AND ELONGATION IN ANY CLIMATE

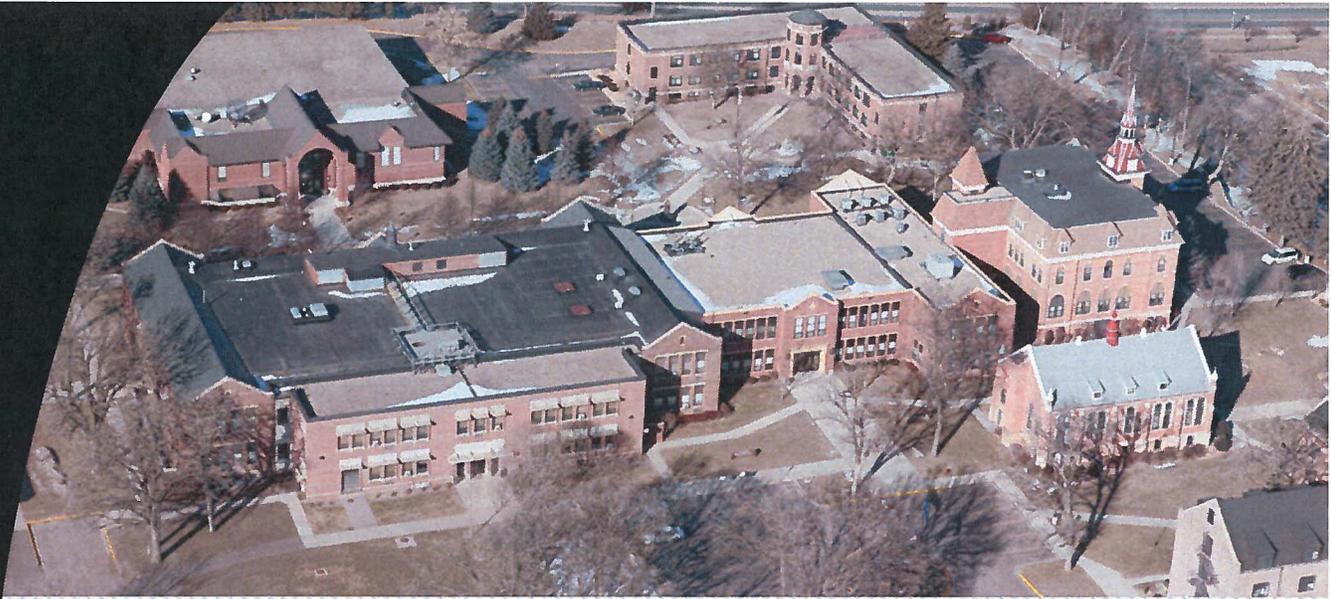
- Easily contours to unusual roof shapes
- Elongates to over 300% of original dimensions, exhibiting outstanding thermal expansion and contraction characteristics



## SUSTAINABLE AND ENVIRONMENTALLY FRIENDLY

- Limited environmental impact during manufacturing and use (membrane is fully recyclable)
- Whether you choose black or white EPDM, the system's thermal performance can reduce energy consumption





## RubberGard EPDM Platinum™ Systems

Designed with the industry's most durable EPDM Membrane—90 mil of uninterrupted thickness—the RubberGard EPDM Platinum System is the best roof solution out there.

### IN ADDITION TO LONG-LASTING PERFORMANCE, RUBBERGARD EPDM PLATINUM MEMBRANE DELIVERS:

- UL- and FM-rated systems
- 90-mil overall thickness
- 10' wide and 16' 8" wide no-fold panels
- Available in 50' and 100' roll lengths
- More flexibility than thermoplastic membranes, allowing year-round application
- Mechanically attached, fully adhered or ballasted options
- Availability in both white and black
- Exceptional 30-year warranty coverage

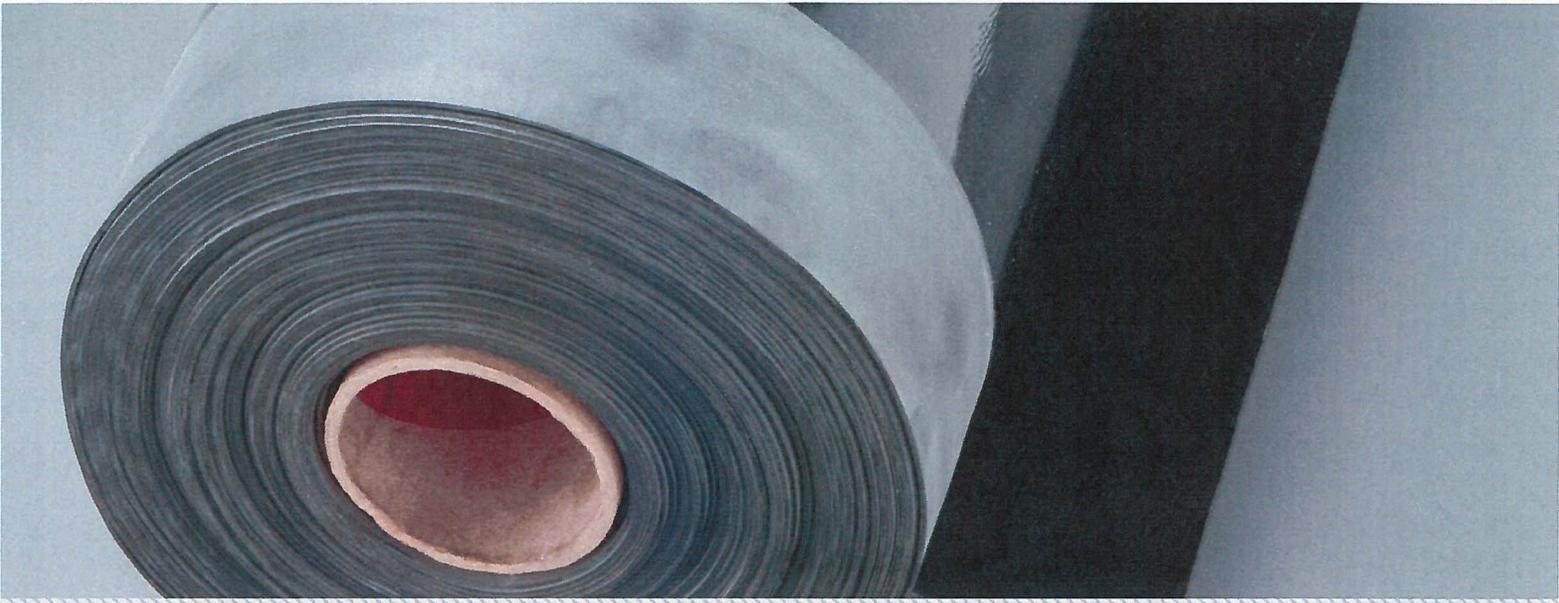


## FIRESTONE RED SHIELD™ PLATINUM™ WARRANTY



With RubberGard EPDM Platinum Systems, you'll enjoy the benefit of the Firestone Red Shield Platinum Warranty that includes **30-year coverage** of:

- Puncture: Coverage for incidental punctures
- Puncture/hail: Coverage for punctures of up to 2"-diameter hail
- Puncture/hail/wind: Coverage for punctures, hail and 100-mph wind



# RubberGard EPDM SA with Secure Bond™ Technology

This self-adhering membrane offers a **revolutionary, factory-applied, pressure-sensitive adhesive.**

Designed to be the next generation in fully adhered roof system applications, our Secure Bond Technology ensures uniform adhesion coverage across the entire membrane, creating one of the **most powerful bonds possible.**

This advanced technology significantly improves installation speed over traditional EPDM fully adhered systems and widens the weather window, with the ability to install down to 20°F.

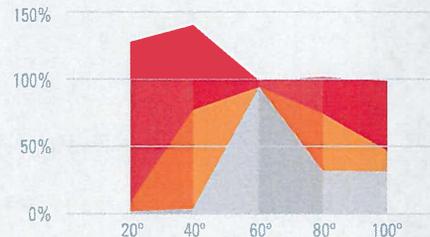
**THE FIRST EPDM SA SYSTEM ON THE MARKET!**

## COLD AND HOT WEATHER PERFORMANCE

### TACK TEST Firestone vs. Competitors

Loss/Gain in Adhesiveness vs. Performance @ 60° F

- Firestone Secure Bond
- Competitor 2
- Competitor 1



- Significantly expand your annual installation window, even down to 20° F with outstanding adhesion

## INSTALLATION SPEED

### ADHESIVE FLASH OFF TIMES AT VARIOUS TEMPS in minutes

	Firestone Secure Bond	Standard Bonding Adhesive	LVOC Bonding Adhesive
	0	9	14
	0	17	19
	0	19	24
	0	20	27

- Installs from two to five times faster than standard fully adhered applications, depending on ambient conditions.
- Requires no primer on approved substrates and is ideal for vertical applications.



## RubberGard EPDM Pre-Taped (PT) Membranes

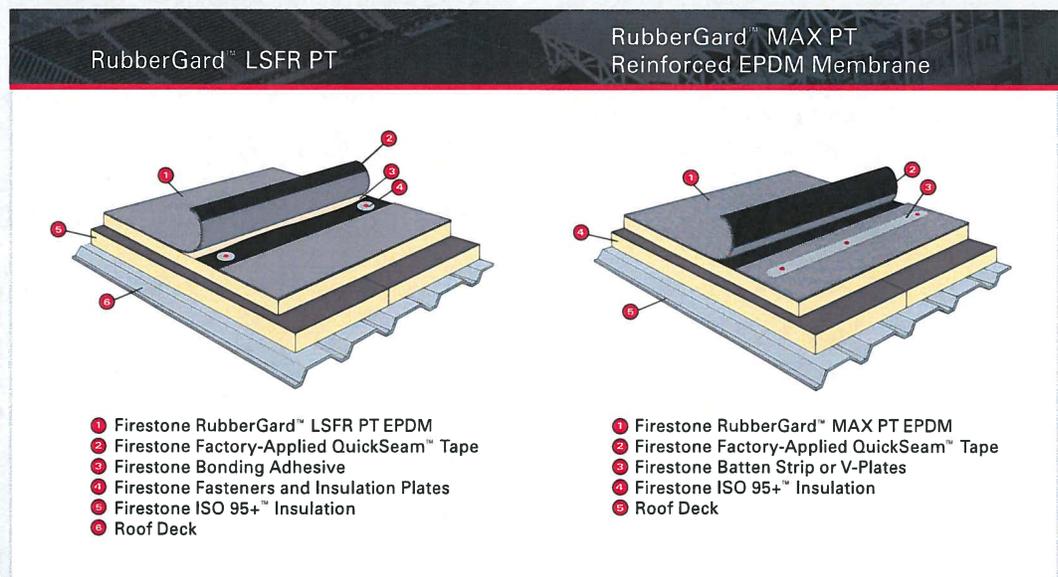
These membranes dramatically expand the popular RubberGard and EcoWhite product lines to include both 60-mil and 90-mil thicknesses.

Pre-taping yields the following features and benefits:

Easier and faster installation → Significantly reduces labor costs

Factory-installed seam tape → Higher-quality seams

Seam tape is cut flush with membrane → More aesthetically pleasing finished product



RubberGard EPDM PT membranes are available in the following options:

### RUBBERGARD EPDM LSFR PT

- Available in widths up to 30 feet and thicknesses up to 90 mil
- Designed for low-slope applications
- Offers increased fire resistance

### RUBBERGARD EPDM MAX PT

- Available in widths up to 10 feet and thicknesses up to 75 mil
- Excellent for roofs with frequent service demands
- Reinforced to combat tears and punctures
- Provides superior resistance to wind forces

### RUBBERGARD ECOWHITE EPDM PT

- Available in widths up to 25 feet and thicknesses up to 90 mil
- Outstanding solar reflectivity and durability
- Membrane is eligible for a Red Shield Platinum Warranty up to 30 years
- Seam tape is cut flush with membrane for a more aesthetically pleasing, finished roof

## Other EPDM membrane options:

### RUBBERGARD MAX EPDM (REINFORCED) MEMBRANE

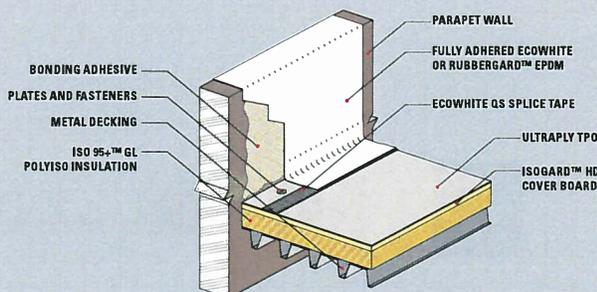
Available in 45-, 60- and 75-mil

RubberGard MAX (reinforced) EPDM is an internally reinforced, cured, single-ply roofing membrane that is designed to combat roof tears and punctures, and provides superior resistance to wind forces. If you are looking for added strength to what is already the longest-lasting roofing system, RubberGard MAX is your choice!

### ULTRABLEND™ ROOFING SYSTEM

We've combined EcoWhite EPDM membrane with UltraPly™ TPO membrane to create a better single solution for both horizontal and vertical roofing needs. The UltraBlend System offers faster installation and lower installation costs.

Use EcoWhite EPDM membrane and accessories for vertical surfaces such as parapets, walls, curbs and penetration details, and UltraPly TPO membrane for horizontal roof surfaces.



### METAL ROOF RETROFIT

#### A cost-effective solution

This cost-effective solution provides many benefits, including:

- Highly reflective membrane options (EcoWhite EPDM and UltraPly TPO)
- Improved energy efficiency through the addition of insulation
- Extends the life of an existing roof for 20 years or longer when installed over a worn metal roof



## RubberGard EcoWhite™ EPDM

Keep rooftops cooler while maintaining the high standards you have come to expect from Firestone. RubberGard EcoWhite EPDM membrane combines the proven performance of EPDM with a highly reflective white surface for regions that have higher cooling costs.

RubberGard EcoWhite EPDM is **easy to handle, installs quickly** and **is more flexible** than thermoplastic single-ply membranes, making it ideal for year-round applications.

### ENJOY THE FOLLOWING BENEFITS WITH ECOWHITE:

- The highest CRRC aged solar reflectance rating for white EPDM—measured at 0.72 vs. the competitive product at 0.64
- Qualifies for the ENERGY STAR® Program
- Contributes to USGBC LEED® certification
- Assists in RoofPoint certification
- Can provide significant energy savings
- Available in both 60- and 90-mil





## QuickSeam™ Accessories

### TAPE

The QuickSeam Tape System is the most advanced method of field seaming EPDM membrane. Contractors appreciate that QuickSeam Tape can be **applied faster** than other seaming methods, while specifiers recognize the **performance, environmental** and **quality control** advantages. Plus, QuickSeam Tape is compatible with all RubberGard EPDM roofing membranes.

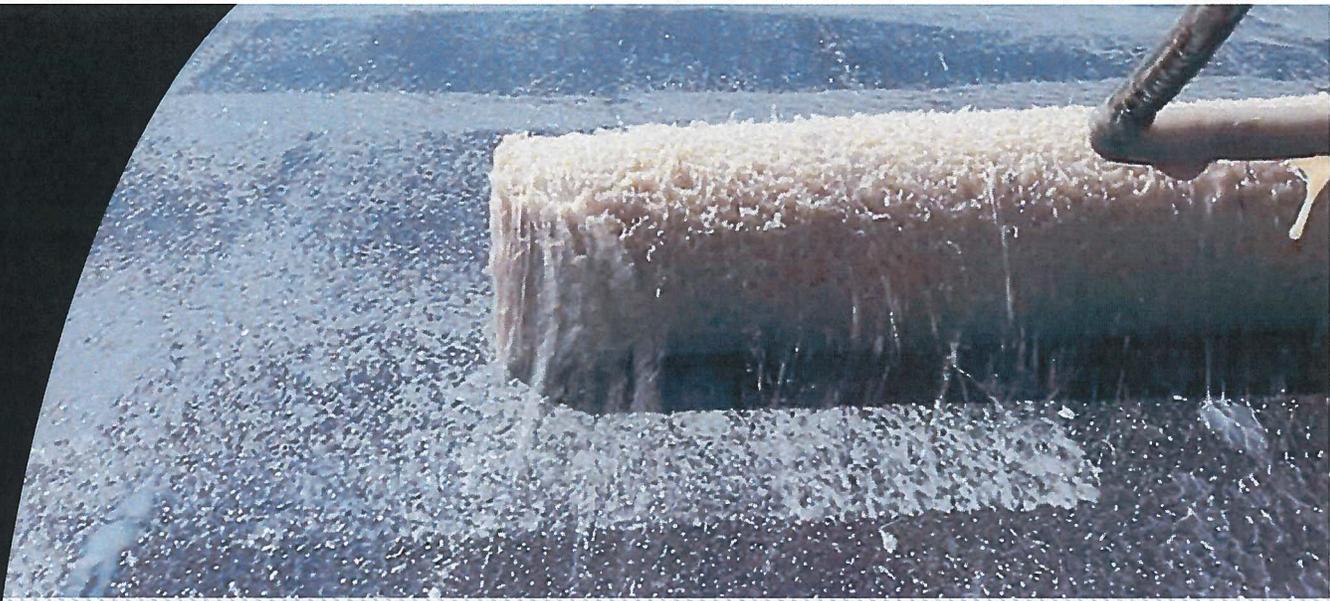
In UL-observed tests, QuickSeam Tape products exhibited **twice the seam strength** of conventional splice adhesive.

### SA FLASHING

QuickSeam SA Flashing consists of an 18-inch wide, 60-mil RubberGard EPDM membrane laminated to QuickSeam Tape. The self-adhering technology of Quickseam SA Flashing was developed for both curbs and parapets in association with RubberGard EPDM roofing systems.

#### QUICKSEAM PRODUCTS HAVE BEEN SUCCESSFUL OVER THE YEARS DUE TO THEIR MANY BENEFITS, INCLUDING:

- Easier and faster installation, which can significantly reduce labor costs
- Factory-installed tape that yields higher quality seams
- Reduction of VOCs on the job site
- Tested and proven quality and reliability



## Primer

### SINGLE-PLY LVOC PRIMER

#### Long-Term Bond Strength Solution

When it is time to prepare your membrane for seam tape, use Firestone's Single-Ply LVOC Primer. This solvent-based primer is designed to clean and prepare either RubberGard EPDM or UltraPly TPO membranes to receive QuickSeam Tape products.

It has been extensively tested and proven to provide **superior adhesion** while complying with current VOC regulations. Its formula ensures **excellent initial** and **long-term bond strength** while **flashing off much more quickly** than the QuickPrime LVOC Primer (and a major competitor's LVOC primer), especially in cold temperatures.



# Adhesives

## EPDM SOLVENT-FREE BONDING ADHESIVE

### Do More with Less

As air quality regulations become more stringent, you can count on Firestone for a premier solution. Our RubberGard EPDM Solvent-Free Bonding Adhesive is a synthetic, polymer-based bonding adhesive, making it nonhazardous and easy to store and ship.

- Odorless and contains near-zero VOCs
- Environmentally friendly and easy to use on occupied buildings
- Can be applied to the substrate only, cutting application time in half
- Increased coverage rate allows for up to 750 sq. ft. of coverage per pail

Use this premium product when project conditions have tighter constraints for manpower, logistics or regulations.



## SINGLE-PLY LVOC BONDING ADHESIVE

### Excellent, Code-Compliant Adhesion

When cold weather arrives, this is your ideal bonding adhesive for adhering membranes in VOC-regulated areas.

- Compatible with EPDM and TPO membranes
- Compliant with the Ozone Transport Commission's (OTC) regulations
- Formulated to mix, pour and apply smoothly for easy application

This solvent-based formulation can be applied as low as 20°F and dries up to seven minutes faster than a major competitor, making it a **great cold weather product.**



## EPDM BONDING ADHESIVE BA-2004(T)

### History of Proven Performance

This solvent-based contact adhesive is designed specifically for bonding Firestone RubberGard EPDM membranes and flashings to approved substrates—and has a long-standing history of success. It is formulated with a wide application window, making it easy to install. If the job is exempt from VOC regulations, this is your cost-effective solution for adhering RubberGard EPDM membranes.



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Partnering with Firestone Building Products means superior support that goes beyond the materials you need for your projects. We look at the big picture with you, taking the entire building envelope into consideration, so we can provide you with a complete solution. For exceptionally performing building materials backed by the services, warranty and expertise you need, count on Firestone. Because...

**NOBODY COVERS YOU BETTER™**



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Sales Rep or visit [FIRESTONEBPCO.COM](http://FIRESTONEBPCO.COM).

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TABLE 1.01-1  
**CHART OF ROOFING SYSTEM APPLICABILITY**  
**RUBBERGARD™ EPDM SINGLE-PLY MEMBRANES**

	System	Product	Slope	Barrel, Arch, etc.	Maximum Height	Maximum Warranty Term	
RubberGard EPDM (Standard, LSFR, or FR)	Adhered	<b>.090" PLATINUM</b> (see PLATINUM Design Guide)	Unlimited	OK	250' (76.2 m)	30 Year	
		.060" RubberGard EPDM	Unlimited	OK	250' (76.2 m)	25-Year	
		.045" RubberGard EPDM	Unlimited	OK	250' (76.2 m)	15-Year	
	Ballasted	Pavers	.060" RubberGard EPDM	Max. 2:12 (16.6%)	NO	250' (76.2 m)	20-Year
			.045" RubberGard EPDM	Max. 2:12 (16.6%)	NO	250' (76.2 m)	15-Year
		Stone	.060" RubberGard EPDM	Max. 2:12 (16.6%)	NO	75' (22.8 m)	20-Year
			.045" RubberGard EPDM	Max. 2:12 (16.6%)	NO	75' (22.8 m)	15-Year
	Mechanically Attached	.060" RubberGard EPDM  With use of Air Barrier or where existing roof remains in place and is sealed. (Requires new or existing roof insulation be attached as in a fully adhered system)		Max. 4:12 (33.3%)	OK	Fastener Row spacing less than 7 feet 120' (36.6 m)	20-Year
		.045" RubberGard EPDM		Max. 4:12 (33.3%)	OK	Fastener Row spacing greater than 7 feet 80' (24.4 m)	
		.060" RubberGard EPDM R.M.A.		Max. 4:12 (33.3%)	OK	120' (36.6 m)	25-Year
.045" RubberGard EPDM R.M.A.		Max. 4:12 (33.3%)	OK	120' (36.6 m)	15-Year		
EPDM RubberGard MAX (Reinforced Membrane)	Adhered	RubberGard MAX Any Thickness	Unlimited	OK	250' (76.2M)	20-Year	
	Ballasted	Pavers	.075" RubberGard MAX	Max. 2:12 (16.6%)	NO	250' (76.2M)	20-Year
			.060" RubberGard MAX	Max. 2:12 (16.6%)	NO	250' (76.2M)	20-Year
			.045" RubberGard MAX	Max. 2:12 (16.6%)	NO	250' (76.2M)	15-Year
	Stone	.075" RubberGard MAX	Max. 2:12 (16.6%)	NO	75' (22.8 m)	20-Year	
		.060" RubberGard MAX	Max. 2:12 (16.6%)	NO	75' (22.8 m)	20-Year	
		.045" RubberGard MAX	Max. 2:12 (16.6%)	NO	75' (22.8 m)	15-Year	
	Mechanically Attached	RubberGard MAX Any Thickness		Max. 4:12 (33.3%)	OK	120' (36.6 m)	20-Year
EPDM Metal Building Recover	Adhered	RubberGard EPDM Any Thickness (Standard, LSFR, or FR)	Unlimited	OK	250' (76.2 m)	20-Year	
	Mechanically Attached	RubberGard R.M.A.	Max. 4:12 (33.3%)	OK	120' (36.6 m)	15-Year	
GARDEN ROOFING	<b>SEE GARDEN ROOF SECTION FOR DETAILS</b>						

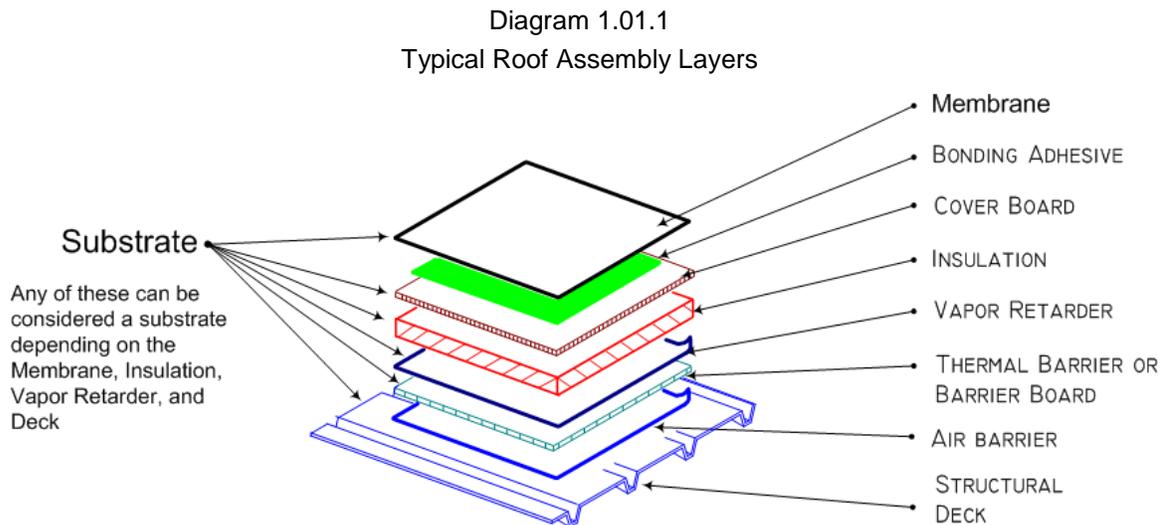
#### D. WARRANTY:

1. Where a Firestone Red Shield labor and material warranty is required:
  - a) Submit an Electronic Pre-Installation Notice (P.I.N.) along with an approved roof drawing, 14 days prior to project start and receive an acknowledgement of acceptance or required enhancements to meet Firestone requirements to receive a warranty.
  - b) The roof must be installed according to the current Firestone requirements appropriate to the project conditions and design requirements.
  - c) The Firestone roof system must be installed by a current Firestone Red Shield licensed applicator.
  - d) The Firestone roof system must be inspected by a Firestone Technical Representative.
  - e) Upon inspection and acceptance of the installed roof system by a Firestone Technical Representative, the warranty will be issued and dated based on the completion date of the roof by the roofing contractor.
2. Firestone's inspection is to confirm the installation details of the roofing system for compliance with Firestone's documents of record for warranty requirements. The inspection is not intended as an inspection for benefit of the building owner or the design professional with respect to contract, building codes or compliance with specifications other than Firestone's.



A Firestone warranty cannot be issued if any of the following conditions exist:

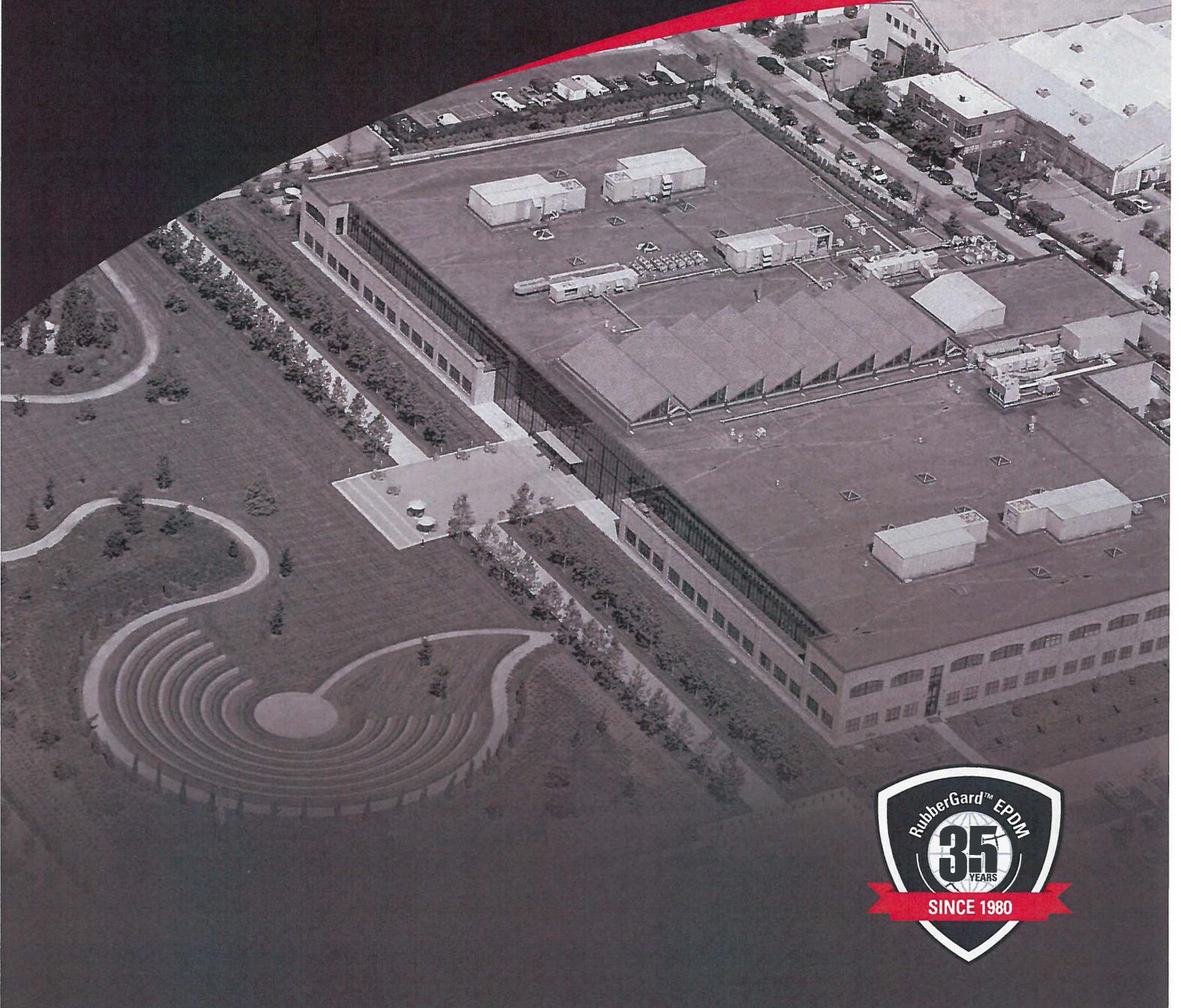
- Non-roofing applications such as plaza deck construction, waterproofing, pond liners, etc.
- Roofing applications for single-family residences
- Other non-approved applications



Not all inter layer attachment methods are shown for clarity.

SEE THE [FIRESTONE GLOSSARY](#) FOR TERMS COMMONLY USED IN THIS MANUAL

**Firestone**  
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# Firestone RubberGard™ EPDM Accessories

ENHANCE THE PERFORMANCE OF YOUR ROOF WITH PRODUCTS  
THAT GO ABOVE AND BEYOND.



# Firestone RubberGard™ EPDM Accessories

**We've got you completely covered.**

With more than 35 years in EPDM Roofing, Firestone Building Products has a proven track record for manufacturing products with superior durability, flexibility and UV resistance. We are proud to provide our customers with a line of RubberGard EPDM membranes and accessories that are backed by a history of excellence and the exclusive Red Shield™ Warranty. See what solutions we've delivered to exceed our valued partner's expectations—and can easily bring to you.



## ADHESIVES

### RubberGard EPDM Bonding Adhesive BA 2004-T

- A solvent-based contact adhesive designed specifically for bonding RubberGard EPDM membranes and flashings to approved substrates



## LOW VOLATILE ORGANIC COMPOUNDS (LVOC) ADHESIVES

### Single-Ply LVOC Bonding Adhesive

- Can be applied in cold weather, unlike water-based adhesives
- Low VOC content < 250 g/L



### Single-Ply LVOC Bonding Adhesive – 1168

- Formulated for special LVOC applications
- Complies with SCAQMD Rule 1160 for low-emitting materials and LEED® requirements
- Low VOC content < 250 g/L

### RubberGard EPDM Solvent-Free BA

- Polymer-based bonding adhesive for adhering non-reinforced RubberGard EPDM membranes to approved substrates on vertical and horizontal applications
- No VOC content

### Water-Based Bonding Adhesive P

- Water-based alternative to traditional, solvent-based adhesives
- Pink flash off color change indicator

## PRIMERS

### QuickPrime™ Plus

- For cleaning and priming approved Firestone membranes prior to application of QuickSeam™ product



### QuickPrime Plus LVOC

- For cleaning and priming RubberGard EPDM membrane and RubberGard EcoWhite EPDM membrane prior to application of QuickSeam products
- Low VOC content < 250 g/L

### Single-Ply LVOC Primer

- Solvent-based primer designed to clean and prime single-ply membranes to receive QuickSeam tape products/accessories
- Low VOC content < 250 g/L

### Splice Wash SW-100

- For cleaning and preparing Firestone single-ply membranes to receive adhesives (as required by Firestone Specifications and Details)

### SA Solvent-Based Primer

- Contains synthetic polymers and adhesion-enhancing resins
- For priming and preparing exterior concrete, metal, wood, plywood and gypsum surfaces to enhance the adhesion

## SEALANTS

### Lap Sealant HS

- LVOC sealant designed for use with Firestone Splice Adhesive SA-1065 for seam edge treatment applications and as a sealant in other applications

### EcoWhite™ EPDM Lap Sealant

- LVOC sealant designed for seam edge treatment and other applications (as required by Firestone Specifications and Details)



### Pourable Sealer S-10 (Parts A & B)

- Two-component sealer designed to create a watertight seal around small pipe penetrations, clusters of pipes, I-beams, etc., in a penetration pocket detail



### FillGard™ M Pourable Sealer

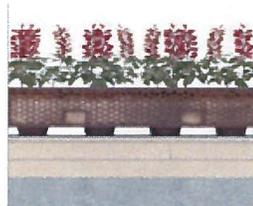
- Two-component polyurethane sealant designed for sealing penetration pockets in conjunction with Firestone EPDM roofing systems

## SUSTAINABLE PRODUCTS

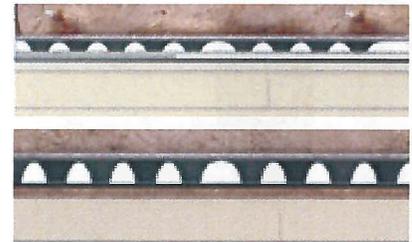
### SkyScape™ Vegetative Roof Systems

- Full range of design solutions that are easy to install, meet or exceed all major performance criteria, and are covered by the strength of the Firestone Red Shield Warranty

#### Modular Tray



#### Built-In-Place Systems



### SunWave™ Daylighting Systems

- Premium daylighting product for the commercial roofing industry
- Provides the highest visible light transmittance with superior light distribution (compared to sunlight domes)



## METAL ROOF EDGE SYSTEMS

Firestone Building Products offers a full line of Metal Edge Systems including:

- Fascia
- Drip Edge
- Gravel Stop
- Coping
- Much more

Please visit [firestonebpc.com](http://firestonebpc.com) to see more details on this offering.



MEMBRANE FLASHING



**RubberGard EcoWhite QuickSeam Flashing**

- Semi-cured EPDM flashing laminated to cured QuickSeam Tape
- Available in 5' x 100' (QuickSeam) and 6' x 100' (EcoWhite QuickSeam) rolls



**QuickSeam Batten Cover**

- Semi-cured EPDM and QuickSeam Tape laminated
- Designed to cover and seal batten strips



**QuickSeam Reinforced Perimeter Fastening (RPF) Strip**

- 6"-wide, reinforced EPDM membrane for use in non-penetration base tie-ins



**RubberGard EcoWhite QuickSeam Pipe and Conduit Flashing**

- Used in roofing applications for flashing of round penetrations
- Used to flash round pipes (between 1" to 6 7/8" pipes) and conduit (between 1/2" to 2 1/2")



**RubberGard EcoWhite QuickSeam Curb Flashing**

- 18"-wide, 60-mil, non-reinforced membrane with 3"-wide tape factory-laminated along one edge
- 3"-tape portion is used to splice the QuickSeam curb flashing to the roof membrane



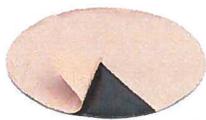
**RubberGard EcoWhite QuickSeam SA Flashing**

- 18"-wide (457.2 mm) membrane fully and completely factory-laminated to EcoWhite seam tape
- Can be used to flash curbs and walls in conjunction with EcoWhite roofing systems



**RubberGard EcoWhite QuickSeam Joint Cover**

- Uncured flashing laminated QuickSeam Tape with second 3"-diameter layer of uncured, flowing tape applied at the center
- Conforms to irregular surfaces such as "T" joints, readily providing an excellent seal



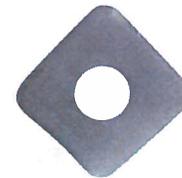
**RubberGard EcoWhite QuickSeam Corner Flashing**

- 8.5" (216 mm) in diameter, consists of Firestone flashing factory-laminated to QuickSeam Tape
- Designed to flash inside and outside corners in conjunction with EPDM Roof Systems



**RubberGard EPDM FormFlash™**

- Uncured flashing membrane that cures in place after installation
- Used with Firestone Splice Adhesive SA 1065
- Used to flash inside and outside corners, pipes, penetration pockets and other applications (as required by Firestone Specifications and Details)



**RubberGard EcoWhite QuickSeam SA Patch for Conduit Flashing**

- Designed as a tape adhesive to field-splice QS Patch for Conduit Flashing to primed flanges of QuickSeam Conduit flashing and RubberGard membrane

## QUICKSEAM™ ACCESSORIES

### TAPE

#### RubberGard R.M.A. Strip

- 10"-wide RubberGard MAX membrane with two 3"-wide strips of QuickSeam Tape factory-laminated to it along its length
- Used for roof membrane attachment beneath the RubberGard EPDM membrane as additional membrane securement



#### QuickSeam Splice Tape

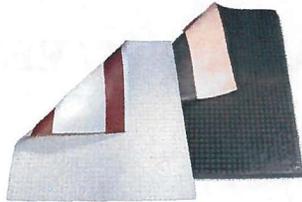
- Designed for field splicing of membrane panels and flashing



### OTHER PRODUCTS

#### QuickSeam Walkway Pad

- A high-quality rubber walkway pad with QuickSeam Tape factory-laminated to the bottom



#### EcoWhite EPDM Penetration Pocket Kits

- A labor-saving option to fabricate penetration pockets
- Utilizes QuickSeam Tape technology and injection molding technology, ensuring uniform product quality and consistency, part after part



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# Firestone ISOGARD™ HD Cover Board

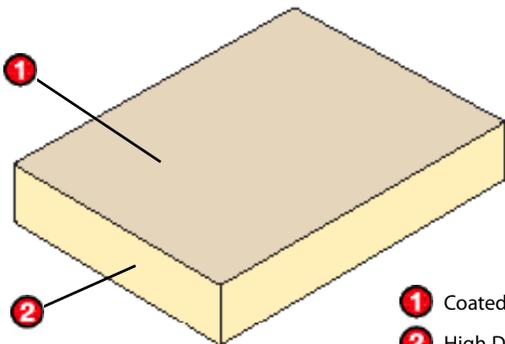
## An Added Measure of Protection for Any Roof.

For the best in long-term roofing performance, cover boards are one way to add an enhanced degree of protection to a roofing system. Firestone, a global leader in commercial roofing, delivers a next generation high density cover board that combines impact resistance, energy savings and ease of installation in a single durable product: ISOGARD™ HD Cover Board.



### Features

- 1/2" thickness, with high-density core
- Closed-cell polyisocyanurate (polyiso) core made with ISOGARD™ foam technology
- Excellent wind-uplift performance (see back)
- Manufactured with a coated fiberglass facer
- Incorporates blowing agent that contains no hydrochlorofluorocarbons (will not deplete ozone)



- 1 Coated Fiberglass Facer
- 2 High Density Foam Core

### Benefits

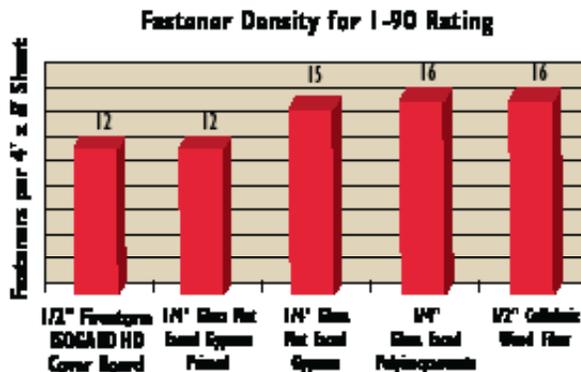
- ISOGARD HD Cover Board compatible with all Firestone membranes—fully adhered and mechanically attached single-ply and cold-applied and self-adhered modified bitumen membranes
- Easy to cut and apply, reducing installation time and labor costs
- High thermal performance cover board
- Requires fewer fasteners than products with similar wind-uplift performance
- ISOGARD HD Cover Board has been given a Severe Hail Rating by Factory Mutual (FM) Global.
- Contains recycled content

**Firestone**  
BUILDING PRODUCTS  
**NOBODY COVERS YOU BETTER.™**

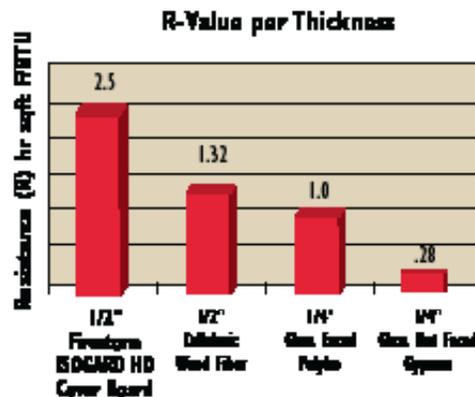
# ISOGARD™ HD—High Density Cover Board

## A tough lightweight contender— for the toughest customers.

- ISOGARD HD Cover Board is easy to cut and handle for quick fabrication around roofing elements such as drains or other penetrations.
- A single 4' x 8' sheet of ISOGARD HD Cover Board weighs only 11 lbs, meaning easy manipulation and placement, as well as more product per pallet.
- Superior wind uplift performance. ISOGARD HD Cover Board lays flat and requires only 12 fasteners per board to meet FM Global 1-90 standards.
- Mold-resistant material per ASTM D3273.
- Available at all Firestone ISO manufacturing facilities, meaning you may be able to secure LEED® credits for utilizing regional materials.
- ISOGARD HD Cover Board can enhance and provide greater UL fire ratings.
- With a compressive strength of 120 psi, Firestone ISOGARD HD Cover Board adds structural strength to the entire roofing system and helps to absorb the effects of hail, worker traffic and other potentially damaging impacts, as well as excessive loads such as heavy snow.
- R-value of 2.5 for valuable energy savings.



Excellent wind uplift performance means Firestone ISOGARD HD Cover Board requires fewer fasteners than other comparable cover boards.



In terms of energy efficiency, easy handling and other important advantages, Firestone ISOGARD HD Cover Board is the clear winner when matched against other leading cover boards.

## ISOGARD HD COVER BOARD SPECS AND DETAILS

### Panel availability

- 4' x 4'
- 4' x 8'

### Weight

11 lbs. per 4' x 8' sheet

Wind-uplift performance  
I-90 (at 12 fasteners per  
4' x 8' board)

### System compatibilities

- Fully adhered single-ply
- Mechanically attached single-ply
- Modified bitumen (cold-applied and self-adhered)

Thermal resistance  
2.5 ft<sup>2</sup>h<sup>0</sup>F/BTU

Please reference  
Firestone Building  
Products Technical  
Information Sheet (TIS) at  
[www.firestonebpco.com](http://www.firestonebpco.com).

**Firestone Building Products**  
250 West 96th St., Indianapolis, IN 46260  
Corporate Office: 1-800-428-4442 • 317-575-7000  
[www.firestonebpco.com](http://www.firestonebpco.com)

#### International Offices:

Firestone Building Products Canada  
2835 Argenta Rd., Unit #2  
Mississauga, ON L5N 8G6  
1-888-292-6265 • Fax: 877-666-3022

Firestone Building Products Europe  
Ikaroslaan 75 - 1930 Zaventem,  
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+32 2 7114450 • Fax: +32 2 7212718

Firestone Building Products Latin America  
8200 NW 52nd Terrace, Suite #107  
Miami, FL 33166  
305-471-0117 • Fax: 305-471-0377

**Firestone**  
**BUILDING PRODUCTS**

\*For details regarding recycled content  
contact a local Firestone representative.



## NEW PRODUCT BULLETIN

**TO: FIRESTONE VALUED CUSTOMERS**

**JUNE 28, 2011**

**RE: V-Force™ Vapor Barrier Membrane**

Firestone Building Products is pleased to introduce **V-Force Vapor Barrier Membrane**. This is a self-adhered product for use on many types of decks as a vapor barrier/retarder and temporary roof membrane. It can also be attached over other approved substrates after priming. V-Force Vapor Barrier Membrane is ideal for mechanically attached or fully adhered Firestone roofing systems.



Product	Part Number	Description	Available Product Sizes/ Quantities per pallet
<b>V-Force Vapor Barrier Membrane</b>	• <b>W56358900V</b>	30 mil thick (minimum) V-Force vapor barrier membrane	45" (1.1m) x 133.8' (40.8 m) Roll / 16 boxed rolls per pallet
<b>V-Force WB Primer</b>	• <b>W563587091</b>	V-Force water based liquid primer	5-Gallon (19 L) Pail / 24 plastic pails per pallet
<b>V-Force SB Primer</b>	• <b>W563587090</b>	V-Force solvent based liquid primer	5-Gallon (19 L) Pail / 36 metal pails per pallet

Features	Benefits
Roll size is 133 ft x 3.75 ft (40.8 m x 1.14 m)	Coverage area approximately 500 sq ft (46 sq m) – more coverage per roll than competitors' 200 sq ft, reducing shipping and handling costs
Self-sealing	Quick and easy release film; primer not needed for metal substrates
UV resistant: 90 days exposure	Temporary covering - dependable for 3 months to meet construction schedules
Class 1 Vapor Retarder – International Building Code (IBC)	Very low water vapor permeability (perm) rating = 0.017
Composed of self-adhesive SBS modified bitumen and a polyethylene woven composite facer (Thickness - minimum 30 mil (0.76 mm); high tensile strength	Slip resistant and puncture resistant, can withstand roof traffic
Included in the Firestone Red Shield® Warranty	Total system coverage
FM and UL; National Building Code of Canada	Tested and approved by third parties
Energy efficiency	Air leakage is minimized (reducing a building's heating and cooling loads) at roof deck openings common in normal roof construction. The self sealing properties of V-Force around fasteners make it suitable for mechanically attached roof systems.

Please contact your Firestone Sales Representatives with any questions or contact Firestone Roofing Solutions at 1-800-428-4511.

Best Regards,

Riaz Hasan  
Accessory Product Manager

**ARCHITECTURAL  
SHINGLES,  
UNDERLAYMENT &  
ICE/WATER SHIELD**

# Timberline® Cool Series® Brochure

(RESTL127)

Updated: 6/15



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

***[gaf.com](http://gaf.com)***



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

# TIMBERLINE® COOLSERIES®

ENERGY-SAVING SHINGLES

North America's #1-Selling Architectural Shingles Are Cool!

[gaf.com](http://gaf.com)



*"Timberline® Cool Series® Shingles. They Not Only Look Cool. They'll Make You Feel Cool."*



# Timberline® Cool Series® Shingles Will Make You Feel COOL



**Timberline® Cool Series® Shingles can help reduce cooling energy costs.\***

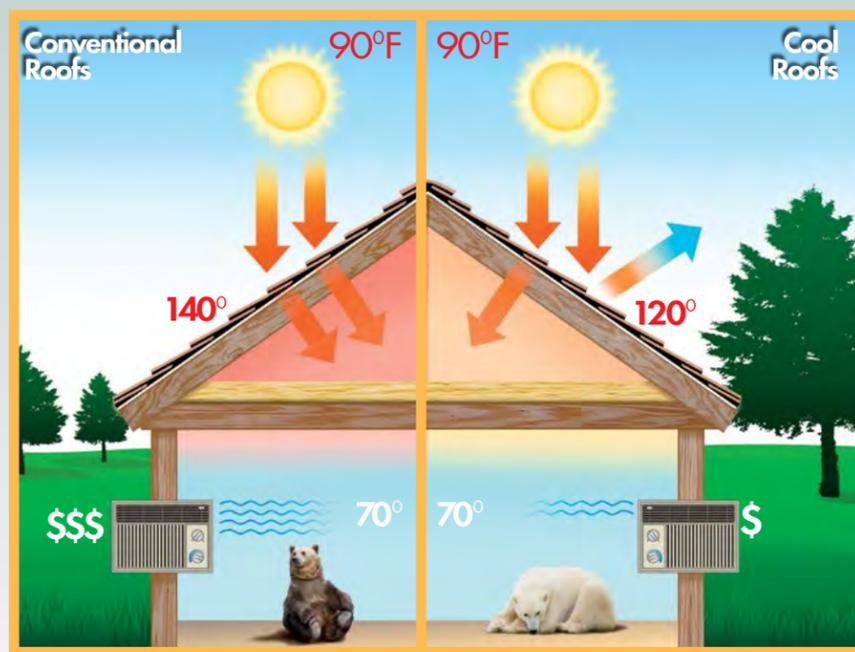
Thanks to modern reflective technology, you can join the green revolution with Timberline® Cool Series® Roofing Shingles. Our highly reflective shingles can help to reduce temperatures in your attic, so your home will stay cooler in the summer—to help save on air-conditioning costs.\*

Simply put, our Timberline® Cool Series® Shingles use specially designed roofing granules that have greater reflectance than traditional shingles. This helps reduce the transfer of heat to the space below—to keep you cooler in the summer.

Not only that, Timberline® Cool Series® Shingles are made with the patented StainGuard® protection to ensure the beauty of your roof against unsightly blue-green algae!\*\*\*



## How Cool?¹



*Thanks to the reflective nature of Timberline® Cool Series® Shingles, part of the heat radiating from the sun gets reflected, helping to reduce the heat in the attic and heat going into the house. It may translate into savings in air-conditioning bills.*

According to the Cool Roof Rating Council, cool roofs may save homeowners an average of 7–15% of their total cooling costs.\*

A cool roof minimizes the solar heat gain of a building by first reflecting incoming sun rays and then by quickly re-emitting the absorbed energy. As a result, the cool roof stays cooler than a traditional roof of similar construction.

\* Savings depend on various factors including, but not limited to, climate zone, utility rates, location, and HVAC equipment efficiency.  
\*\* See GAF Shingle & Accessory Ltd. Warranty for complete coverage and restrictions. The word "Lifetime" means as long as the original individual owner(s) of a single-family detached residence (or the second owner(s) in certain circumstances) owns the property where the shingles are installed. For owners/structures not meeting the above criteria, Lifetime coverage is not applicable.

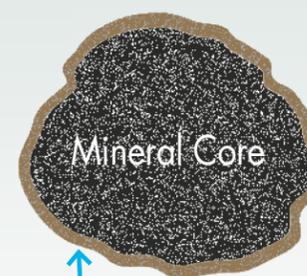
### TIMBERLINE® COOL SERIES® REFLECTANCE & EMITTANCE DATA

Color	Initial Solar Reflectance	Thermal Emittance	Solar Reflectance Index (SRI)	LEED® Credits
Cool Antique Slate	0.27	0.92	29	YES
Cool Barkwood	0.27	0.92	29	YES
Cool Weathered Wood	0.26	0.92	29	YES

## A Cool Secret.

Roofing granules give a shingle its unique look and tone. But traditionally, only shingles with white granules were considered "cool" by energy-saving standards.

Thanks to our cool shingle process, using special proprietary cool granules with unique formulas, our shingles are highly reflective. These special granules reflect light to lower the roof temperature to help you feel cool.



**Proprietary Outer Coating**

- Provides color pigments for the roof color you choose
- Reflects infrared (invisible)

## Trust The Star...

**Timberline® Cool Series® is an ENERGY STAR®-qualified roof product.¹ Here's what it means to you according to ENERGY STAR®:**



U.S. only

- **Saves Money and Energy.** According to the EPA, about \$40 billion is spent annually in the U.S. to air condition buildings—one-sixth of all electricity generated in a year! ENERGY STAR®-qualified roof products may reduce the amount of air conditioning needed in buildings, and may reduce energy bills.

- **Downsizes Cooling Equipment.** A reflective roof can reduce peak cooling demand. As a result, the home or building owner may be able to purchase a smaller, more efficient, and less expensive cooling system.

- **Decreases Pollution in Urban Areas.** Reduced energy demand means less burning of fossil fuels, which results in less pollution from power plants. Also, ENERGY STAR®-qualified roof products help to reduce the "heat island effect," in which dark, heat-absorbing buildings and paved areas make the air in urban areas hotter, and more smoggy.

¹When installed properly, this product will help reduce energy costs. Actual savings will vary based on geographic location and individual building characteristics. For more information, contact GAF Technical Services at 1-800-ROOF-411, visit gaf.com, or call 1-888-STAR-YES.

To learn about other Green Roofing products, including ventilation, visit [gaf.com/green](http://gaf.com/green)

# Timberline® Cool Series® Shingles Come In Three VERY COOL Colors

## FOR HOMEOWNERS

- **Helps Save Money On Cooling Costs...** According to the Cool Roof Rating Council, cool roofs may save you an average of 7-15% on your total cooling costs, depending on geography, season, and property<sup>1</sup>
- **Rebates...** Some utility companies may provide incentives for using cool shingles
- **Pioneer in Cool Shingles...** First manufacturer to launch highly reflective shingles.
- **Highest Fire Rating...** Class A fire rating from Underwriters Laboratories
- **High Performance...** Designed with Advanced Protection® Shingle Technology, which reduces the use of natural resources while providing excellent protection for your home (visit [gaf.com/aps](http://gaf.com/aps) to learn more)



- **Stays in Place...** Dura Grip™ Adhesive seals each shingle tightly and reduces the risk of shingle blow-off. Shingles warranted to withstand winds up to 130 mph (with special installation; see *GAF Shingle & Accessory Ltd. Warranty* for details)
- **Peace of Mind...** Lifetime Ltd. transferable warranty with Smart Choice® Protection (non-prorated material and installation labor coverage) for the first ten years<sup>2</sup>
- **Perfect Finishing Touch...** Use Ridglass® Premium or Seal-A-Ridge® Ridge Cap Shingles<sup>3</sup>

<sup>1</sup>Savings depend on various factors including, but not limited to, climate zone, utility rates, location, and HVAC equipment efficiency.

<sup>2</sup>See *GAF Shingle & Accessory Ltd. Warranty* for complete coverage and restrictions. The word "Lifetime" means as long as the original individual owner(s) of a single-family detached residence (or the second owner(s) in certain circumstances) owns the property where the shingles are installed. For owners/structures not meeting the above criteria, Lifetime coverage is not applicable.

<sup>3</sup>Ridglass® Premium Ridge Cap Shingles are available only in the Western Area of the U.S. Seal-A-Ridge® Ridge Cap Shingles are available across the U.S. (except the Western Area).

## FOR PROFESSIONALS

- **A Familiar Shingle...** The shingle you have come to know and love, Timberline®, now comes in "green" for your customers who want to help save both money and the environment
- **Strong Consumer Interest...** Driven by cooling cost savings<sup>1</sup> and rebates
- **Broaden Your Portfolio...** Offer your customers a potential energy- and cost-saving solution
- **Excellent Value...** This unique product is offered at a competitive price



## TIMBERLINE® COOL SERIES® SPECIFICATIONS

- Fiberglass asphalt construction
- Lifetime Ltd. transferable warranty<sup>1</sup>
- Smart Choice® Protection for the first 10 years<sup>2</sup>
- 130 mph Ltd. wind coverage<sup>2</sup>
- StainGuard® Protection<sup>3</sup>
- ENERGY STAR® qualified (U.S. only)
- Meets the prescriptive requirements of California TITLE 24, Part 6 for Cool Steep-Slope Roofing
- Rated by Cool Roof Rating Council (CRRCC)
- ASTM D3161 Type 1, Class F
- ASTM D3018 Type 1, Class F
- ASTM D3462<sup>4</sup>
- ASTM D7158, Class H
- Class A fire rated—UL 790
- Texas Department of Insurance
- ICC Approved
- Classified in accordance with ICC-ES AC438
- Miami-Dade County approved
- Florida Building Code approved
- Approx. 64 Pieces/Sq.
- Approx. 3 Bundles/Sq.
- Approx. 256 Nails/Sq.
- 5 5/8" Exposure

<sup>1</sup>See *GAF Shingle & Accessory Ltd. Warranty* for complete coverage and restrictions. The word "Lifetime" means as long as the original individual owner(s) of a single-family detached residence (or the second owner(s) in certain circumstances) owns the property where the shingles are installed. For owners/structures not meeting the above criteria, Lifetime coverage is not applicable.

<sup>2</sup>This wind speed coverage requires special installation; see *GAF Shingle & Accessory Ltd. Warranty* for details.

<sup>3</sup>Periodically tested by independent and internal labs to ensure compliance with ASTM D3462 at time of manufacture.

<sup>4</sup>Ridglass® Premium Ridge Cap Shingles are available only in the Western Area of the U.S. Seal-A-Ridge® Premium Ridge Cap Shingles are available in the U.S. (except the Western Area).



Color Shown: Cool Barkwood



Color Shown: Cool Antique Slate



Color Shown: Cool Weathered Wood

Note: It is difficult to reproduce the color clarity and actual color blends of these products. Before selecting your color, please ask to see several full-size shingles.



Cool Barkwood



Cool Antique Slate



Cool Weathered Wood



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

[gaf.com](http://gaf.com)

# More Than Just Coverage On Your Shingles!

## Get Automatic Lifetime Protection On Your Entire GAF Roofing System!\*

When you install any GAF Lifetime Shingle and at least 3 qualifying GAF accessories, you'll automatically get:

- A Lifetime Ltd. warranty on your shingles and all qualifying GAF accessories!\*
- Non-prorated coverage for the first 10 years!\*



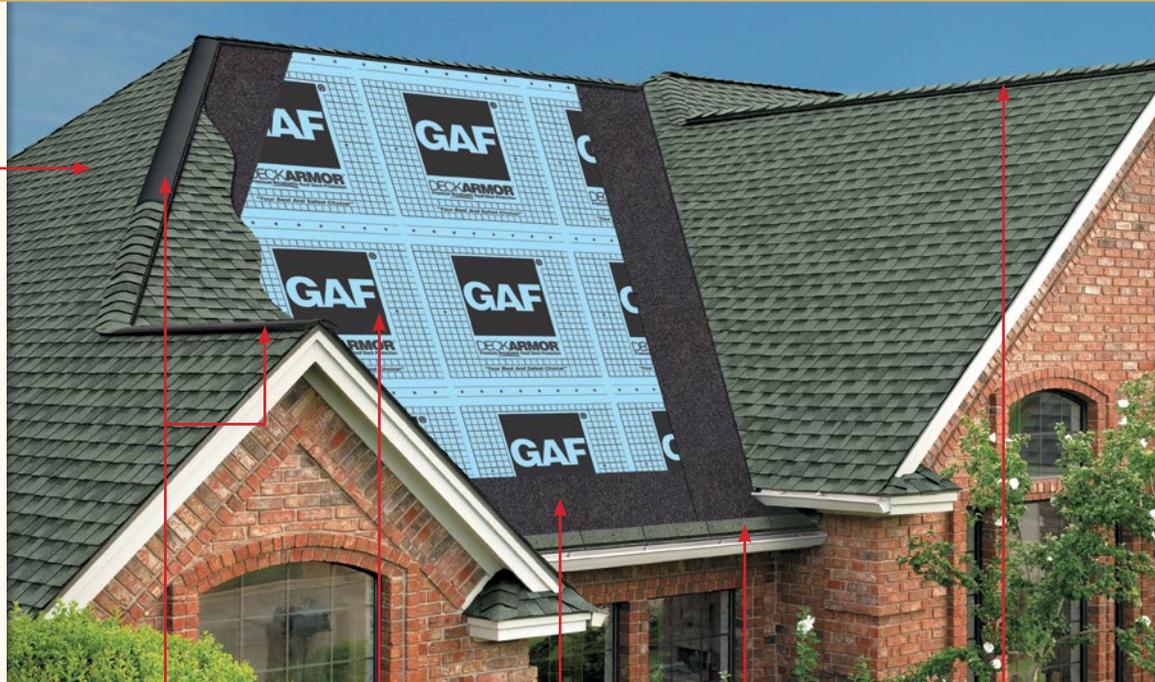
### LIFETIME

### SHINGLES

GAF offers you many great Lifetime Shingle choices, including **Timberline®** Shingles with Advanced Protection® Shingle Technology. They're the #1-selling shingles in North America!

Advanced Protection® Shingle Technology provides excellent protection for your home while reducing the use of precious natural resources. That's better for your home—and better for the environment!

To learn more about why Advanced Protection® Shingles are your best choice, visit [gaf.com/aps](http://gaf.com/aps).



### Cobra® Attic Ventilation

Helps remove excess heat and moisture from your attic to promote energy efficiency in your home and help extend the life of your roof.



### Roof Deck Protection

Provides an exceptionally strong layer of protection against wind-driven rain; some even allow moisture to escape from your attic. Also, lies flatter for a better-looking roof.



### Leak Barrier

Provides exceptional protection against leaks caused by roof settling and extreme weather. Ideal upgrade at all vulnerable areas (including at the eaves in the North!).



### Starter Strip Shingles

Saves time, eliminates waste, and reduces the risk of blow-off...and may even help qualify for upgraded wind warranty coverage (see *GAF Shingle & Accessory Ltd. Warranty*\* for details).



### Ridge Cap Shingles

Enhances the beauty of your home while guarding against leaks at the hips and ridges.



†In the North, building codes require the use of Leak Barrier at the eaves.



\*See *GAF Shingle & Accessory Ltd. Warranty* for complete coverage and restrictions. The word "Lifetime" means as long as the original individual owner(s) of a single-family detached residence (or the second owner(s) in certain circumstances) owns the property where the shingles and accessories are installed. For owners/structures not meeting the above criteria, Lifetime coverage is not applicable. Lifetime Ltd. warranty on accessories requires the use of at least three qualifying GAF accessories and the use of Lifetime Shingles.



WOMEN'S CHOICE AWARD  
ROOFING PRODUCTS



The GAF Lifetime Roofing System has earned the prestigious Good Housekeeping Seal, which means that Good Housekeeping stands behind the products in this system. (Refer to Good Housekeeping Magazine for its consumer protection policy. Applicable in U.S. only.)

#### SALES OFFICES:

NORTHEAST  
717-866-8392

CENTRAL  
630-296-1980

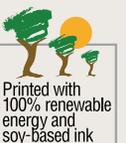
SOUTHEAST  
813-829-8880

SOUTHWEST  
972-851-0500

WEST  
800-445-9330

CANADA  
855-492-8085

WORLD HQ  
973-628-3000



# **Deck-Armor Brochure™**

(RESUL164)

Updated: 5/16



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

# DECKARMOR™

Premium **Breathable** Roof Deck Protection

Learn about  
**Roof Deck  
Protection**

## *Protect Your Home With Premium, Breathable*

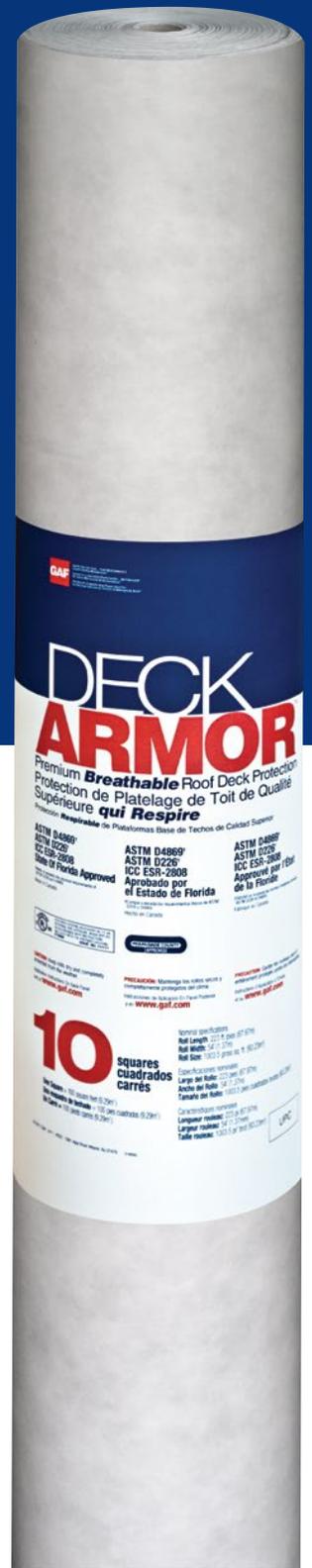
# Roof Deck Protection

**Roof Deck Protection should help protect your home and reduce trapped moisture at the same time (amazingly, most synthetic underlayments do NOT!).**

It provides a critical extra layer of protection between your shingles and your roof deck — to help prevent wind-driven rain (or water from other sources) from infiltrating under your shingles and causing damage to your roof structure or to the inside of your home. In addition, premium-quality roof deck protection will:

- Help reduce trapped moisture from inside your attic, allowing it to escape (to help prevent structural decay, mold, and mildew)
- Provide longer-lasting leak protection than conventional “felts” (which can rot or become brittle before your shingles reach the end of their useful life)
- Lie flatter, so your shingles will lie flat and uniform

*Deck-Armor™ Premium Breathable Roof Deck Protection is a key part of the GAF Lifetime Roofing System and has even earned the prestigious Good Housekeeping Seal (applicable in U.S. only; see back page).*



[gaf.com](http://gaf.com)

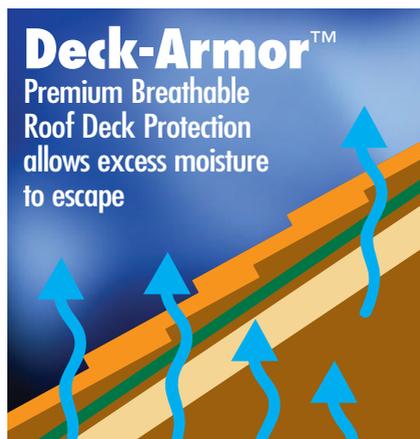
# WARNING:

Moisture trapped on the roof deck can result in decay, mold, mildew, and costly structural damage!



Today's modern homes are built weathertight — so common moisture (from cooking, bathing, cleaning, etc.) has less chance to escape. Over time, that can cause roof rot, mold, mildew, and costly structural decay.

That's why GAF recommends the use of roof deck protection that helps reduce moisture that can be trapped under the roof's shingles!



## DECK-ARMOR™ ROOF DECK PROTECTION "Out-breathes" the competition...

16 Perms	Deck-Armor™
6 Perms	#15 felt
5 Perms	#30 felt
← Typical competitive non-asphaltic products: .05 Perms (virtually non-breathable)	

As measured on Mocon unit @ 74°F (23°C) and 50% R.H.

# The very **best** roofing systems require Premium, Breathable Roof Deck Protection



*Conventional organic felts can absorb moisture, causing severe buckling and wrinkling—and a terrible-looking roof*



*Deck-Armor™ Premium Breathable Roof Deck Protection resists moisture, so it lies flatter for a better-looking roof!*

**Deck-Armor™ Premium Breathable Roof Deck Protection** combines exceptional **strength** and excellent **breathability** to help protect your home against roof rot and other costly damage!

- **Exceptionally Strong...** At least 600% greater tear strength than standard #30 felt!†
- **Revolutionary Breathable Technology...** Helps prevent inside moisture from becoming trapped within your roofing system—and possibly causing mold, mildew, and expensive structural damage.
- **Premium Construction...** Exceptionally durable, non-asphaltic construction will not rot or become brittle (unlike conventional asphalt felts, which can disintegrate over time).
- **Long-Lasting Protection...** Up to a Lifetime ltd. warranty when installed on Lifetime Shingle roofs.\* (see back page)
- **Looks Better...** Unlike conventional asphalt felts, Deck-Armor™ Premium Breathable Roof Deck Protection resists wrinkling or buckling, so it lets your shingles lie flatter for a better-looking roof.



† GAF trapezoidal tear strength testing per ASTM D4533.



**DECKARMOR™**  
Premium **Breathable** Roof Deck Protection

# Professional Installers Love Deck-Armor™ Roof Deck Protection

## The exceptional walkability of Deck-Armor™ Premium Breathable Roof Deck Protection helps keep installers safer on the job!

Deck-Armor™ Premium Roof Deck Protection combines high tear resistance and nail pull-through with a special slip-resistant surface for exceptional walkability — even on steeper pitches!

### Tear Resistant...

At least 600% stronger than standard #30 felt—less chance of tearing during installation

### Less Chance Of Blow-Off...

214% higher nail pull-through strength than #30 felt keeps product in place



GAF trapezoidal tear strength (lbs) testing per ASTM D4533



GAF nail pull-through (lbs) testing per ASTM D3462

### Installers' Best Choice

- **Safer...** Special slip-resistant surface provides enhanced walkability, even on steeper-pitched roofs.
- **Resists Wrinkling...** Unlike conventional asphaltic felts, Deck-Armor™ Roof Deck Protection resists wrinkling and buckling—and it will still remain flat.
- **Lightweight...** At 37 lb. (17 kg) per roll, it's nearly 1/3 the weight of a roll of #30 felt.
- **Faster Installation...** Extra-wide 54" (1.4 m) roll provides 50% more coverage per course than traditional 36" (914 mm) wide felts.
- **Cooler To Work With...** Light-blue surface is cooler in hot weather than conventional black felts.
- **Easier To Cut...** Spun-bound design is easier to cut than some other synthetic underlayments.
- **Avoids Downtime...** Will not become rigid in extreme cold weather or sticky in hot weather.

- **Versatile...** Recommended for use with asphaltic shingle roofing systems. May also be used with certain non-asphaltic roofing systems, such as metal, tile, wood, and slate.<sup>1</sup>

<sup>1</sup> Install following the Deck-Armor™ Roof Deck Protection published application instructions. Contact GAF Technical Services at 1-800-ROOF-411 or visit [gaf.com](http://gaf.com) for acceptable non-asphaltic roofing systems and limited warranty coverage.

Note: Deck-Armor™ must be installed using plastic cap nails or staples with plastic caps; do NOT use staples or nails without caps.

### Specifications (Nominal)

- UV-stabilized polypropylene construction resists UV degradation for up to 180 days<sup>2</sup>
- Approx. 10 squares/roll (excludes laps)
- Approx. 37 lb. (17 kg)/roll
- 54" (137 cm) wide, 223' (68 m) long
- Miami-Dade County Product Control approved
- Florida Building Code approved
- ICC-ES ESR-2808
- Meets or exceeds the physical requirements of ASTM D226 and D4869
- Meets UL Class A fire rating when used with UL Class A rated roof coverings

<sup>2</sup>Note: 180-day UV resistance refers to standardized testing conducted to ensure the product will not physically degrade when exposed to UV. It is **NOT** related to withstanding water, snow, or wind. While Deck-Armor™ Roof Deck Protection is water resistant, it is **NOT** waterproof. **DO NOT USE** Deck-Armor™ Roof Deck Protection as a temporary roof to protect property or possessions.

More Than Just Coverage  
On Your Shingles!

Get Automatic  
**Lifetime Protection**  
On Your Entire GAF  
Roofing System!\*

When you install any GAF  
Lifetime Shingle and at least  
3 qualifying GAF accessories,  
you'll automatically get:

- A Lifetime Ltd. warranty on your shingles and all qualifying GAF accessories!\*
- Non-prorated coverage for the first 10 years\*



LIFETIME SHINGLES COBRA ATTIC VENTILATION ROOF DECK PROTECTION LEAK BARRIER STARTER STRIP SHINGLES RIDGE CAP SHINGLES

SHINGLE & ACCESSORY LTD. WARRANTY  
**Lifetime**  
LTD. WARRANTY TERM

\*See GAF Shingle & Accessory Ltd. Warranty for complete coverage and restrictions. The word "Lifetime" refers to the length of coverage provided by the GAF Shingle & Accessory Ltd. Warranty and means as long as the original individual owner(s) of a single-family detached residence (or the second owner(s) in certain circumstances) owns the property where the shingles and accessories are installed. For owners/structures not meeting the above criteria, Lifetime coverage is not applicable. Lifetime Ltd. warranty on accessories requires the use of at least three qualifying GAF accessories and the use of Lifetime Shingles.



The GAF Lifetime Roofing System has earned the prestigious Good Housekeeping Seal, which means that Good Housekeeping stands behind the products in this system. (Refer to Good Housekeeping Magazine for its consumer protection policy. Applicable in U.S. only.)

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

**Weather Watch<sup>®</sup>  
Mineral-Surfaced Leak Barrier  
Sell Sheet  
RESUL103**

Updated: 5/15



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

[www.gaf.com](http://www.gaf.com)

# WEATHERWATCH®

Mineral-Surfaced **Leak Barrier**

Learn about  
**Leak  
Barriers**

*Help Protect Your Home  
From Wind-Driven  
Rain And Damaging  
Ice Dams With A*

# Leak Barrier

## A Quality Leak Barrier Will:

Help prevent water penetration at the most vulnerable areas of your roof (at the eaves and rakes, in valleys, around chimneys, etc.).

WeatherWatch®, a quality Leak Barrier, will:

- Help protect your home from costly repairs due to wall and ceiling staining from leaks
- Help prevent leaks due to water damming in your gutters, wind-driven rain, and, in the North, damaging ice dams



## Help Protect Your Home

- **The Codes Are Clear...** Protection against ice dams is *required* by most building codes\* at eaves wherever the January average temperature is 25°F (3.8°C) or lower or where there is a possibility of ice forming in the eaves—i.e., the area labeled “North”

†In the “North,” building codes *require* the use of leak barrier at the eaves.



[gaf.com](http://gaf.com)

\*Check local building codes for specifications in your area.

†Source: International Building Code (IBC) and International Residential Code (IRC).

# WEATHERWATCH®

## Mineral-Surfaced Leak Barrier

### Homeowner's Best Choice

- **Better...** Fiberglass reinforcement helps resist wrinkling and buckling.
- **Meets Most Building Codes...** In the North, where leak barriers are required<sup>†</sup>.
- **Peace Of Mind...** Up to a Lifetime Ltd. warranty when used on Lifetime Shingle roofs<sup>1</sup>, up to a 25-year Ltd. warranty when used on non-Lifetime Shingle roofs.<sup>1</sup>



### GAF WeatherWatch® EXCEEDS the following requirements of ASTM D1970

Property	Method	Requirement
Thickness (mils)	D5147	Min. 40
Tensile strength MD (lbf/in)	D2523	Min. 25
Tensile strength CMD (lbf/in)	D2523	Min. 25
Elongation at break, modified bitumen Portion – MD and CMD (%)	D2523	Min. 10
Adhesion to plywood at 75°F (23.9°C) (lbf/ft-width)	D903	Min. 12
Adhesion to plywood at 40°F (4.4°C) (lbf/ft-width)	D903	Min. 2
Thermal stability (mm)	D1204	Max. 3
Low temperature flexibility (-20°F) (-28.8°C)	D1970	Pass
Tear resistance MD (lbf)	D4073	Min. 20
Tear resistance CMD (lbf)	D4073	Min. 20
Moisture vapor permeance (U.S. perms)	E96 A	Max 0.1
Sealability around nail	D1970	Pass
Waterproof integrity after low temperature flexibility	D1970	Pass
Waterproof integrity of lap seam	D1970	Pass

### Professional's Best Choice

- **Helps Eliminate Waste...** Special adhesive allows for one-time repositioning, but aggressively adheres over time.
- **Dependable...** Self-seals around nails or metal roofing fasteners.
- **Saves Labor...** Dual-side selvedge and split-back release film helps to speed installation.

<sup>†</sup> See WeatherWatch® and StormGuard® Limited Warranty for this product for complete coverage and restrictions.

#### Applicable Standards

- ICC-ES Evaluation Report (ESR 1322)
- Meets the performance criteria of ASTM D1970
- Miami-Dade County Approved
- State of Florida Approved
- UL Classified. See complete marking on product.

#### Nom. Product Specifications

<b>1.5 Square Roll</b>	
Roll length	50 ft (15.2 m)
Roll width	36 in (0.9 m)
Sq. feet per roll	150 sq ft (13.9 sq m)
<b>2.0 Square Roll</b>	
Roll length	66.8 ft (20.3 m)
Roll width	36 in (0.9 m)
Sq. feet per roll	200 sq ft (18.6 sq m)

More Than Just Coverage  
On Your Shingles!

Get Automatic  
**Lifetime Protection**  
On Your Entire GAF  
Roofing System!\*

When you install any GAF  
Lifetime Shingle and at least  
3 qualifying GAF accessories,  
you'll automatically get:

- A Lifetime Ltd. warranty on your shingles and all qualifying GAF accessories!\*
- Non-prorated coverage for the first 10 years\*



LIFETIME SHINGLES COBRA ATTIC VENTILATION ROOF DECK PROTECTION LEAK BARRIER STARTER STRIP SHINGLES RIDGE CAP SHINGLES



\*See GAF Shingle & Accessory Ltd. Warranty for complete coverage and restrictions. The word "Lifetime" means as long as the original individual owner(s) of a single-family detached residence (or the second owner(s) in certain circumstances) owns the property where the shingles and accessories are installed. For owners/structures not meeting the above criteria, Lifetime coverage is not applicable. Lifetime Ltd. warranty on accessories requires the use of at least three qualifying GAF accessories and the use of Lifetime Shingles.



The GAF Lifetime Roofing System has earned the prestigious Good Housekeeping Seal, which means that Good Housekeeping stands behind the products in this system. (Refer to Good Housekeeping Magazine for its consumer protection policy. Applicable in U.S. only.)



**Timbertex<sup>®</sup>**

# **Sell Sheet**

(RESHR102)

Updated: 2/16



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

***[gaf.com](http://gaf.com)***

# TIMBERTEX<sup>®</sup>

Premium Ridge Cap Shingles

Learn about  
Ridge Cap  
Shingles

*The Perfect Finishing Touch  
For Your New Roof Should Be  
A Protective And Distinctive*

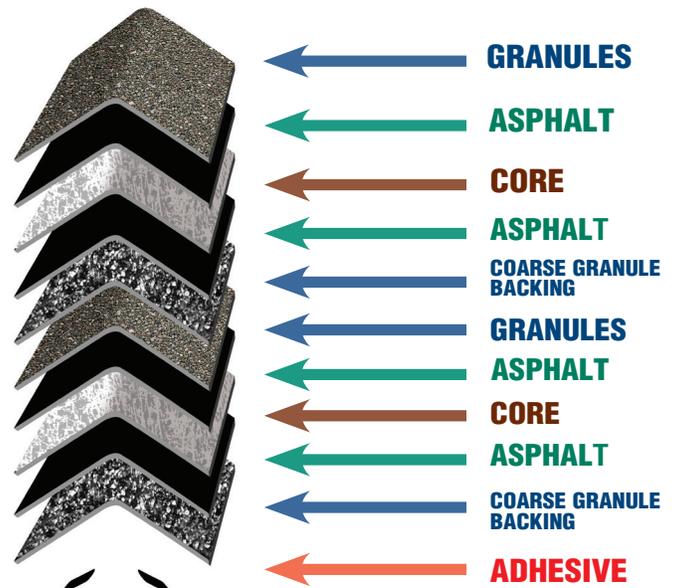
# Ridge Cap Shingle

## A Distinctive And Protective Premium Ridge Cap Shingle Will:

- Match the performance of your new roof (unlike using typical 20- or 25-year cut-up strip shingles as your ridge cap)
- Accentuate the natural beauty of your newly installed architectural shingle roof (or even add dimension and depth to a strip shingle roof)
- Offer multi-layer protection at the highest-stress areas of your roof (the hips and ridges)
- Provide a striking and higher-quality alternative to using cut-up strip shingles as your ridge cap

Timbertex<sup>®</sup> Premium Ridge Cap Shingles are a key part of the GAF Lifetime Roofing System and have even earned the prestigious Good Housekeeping Seal (applicable in U.S. only; see reverse).

## Multi-Layer Protection For Your Home



[gaf.com](http://gaf.com)

# TIMBERTEX®

## Premium Ridge Cap Shingles

**Your Best Choice:**

- ✓ Up to a Lifetime Ltd. warranty on Lifetime Shingle roofs!\*
- ✓ The perfect finishing touch for your GAF roof

### Homeowner's Best Choice

- **Dramatic Look...** Extra-thick, double-layer design with massive 8" (20 cm) exposure is up to 195% thicker than strip shingles for a distinctive, upscale look
- **The Right Colors...** Unlike cut-up strip shingles, Timbertex® Premium Ridge Cap Shingles are factory designed to complement the color of GAF laminated shingles
- **Stays In Place...** Dura Grip™ Self-seal Adhesive seals each piece tightly and helps reduce the risk of shingle blow-off
- **StainGuard® Protection...** Helps ensure the beauty of your ridge cap shingles against unsightly blue-green algae\*
- **Peace of Mind...** Up to a Lifetime Ltd. warranty when installed on Lifetime Shingle roofs\*



Note: See [www.gaf.com/ridgecapavailability](http://www.gaf.com/ridgecapavailability) for regional availability.

### See What Timbertex® Can Do For Your Roof!



### Professional's Best Choice

- **Easier to Install...** Improved pre-scored design makes hand-tearing pieces easier than ever—no cutting on the roof!
- **Saves Time...** Timbertex's 8" (20 cm) exposure means fewer pieces to install (vs. typical cut-up strip shingles)
- **Versatile...** 12" (30 cm) wide design fits easily over the most common-size ridge vents

### Fast & Easy Installation!



### Nominal Product Specifications

- 8" (20 cm) exposure
- Approx. 12" (30 cm) wide
- Each bundle covers approximately 20 lineal feet (6 lm)
- 5 bundles cover approximately 100 lineal feet (30 lm)
- 150 pieces per 100 lineal feet (30 lm) of coverage
- Approx. 2 nails per piece
- UL 790 Class A fire rated
- Meets ASTM D3161 Class F; ASTM D3018 Type 1; and ASTM D3462†
- CSA A123.5
- Miami-Dade County Product Control approved
- Florida Building Code approved
- ICC-ES ESR-1475



†Periodically tested by independent and internal labs to ensure compliance with ASTM D3462 at time of manufacture.

More Than Just Coverage On Your Shingles!

Get Automatic Lifetime Protection On Your Entire GAF Roofing System!\*

When you install any GAF Lifetime Shingle and at least 3 qualifying GAF accessories, you'll automatically get:

- A Lifetime Ltd. warranty on your shingles and all qualifying GAF accessories!\*
- Non-prorated coverage for the first 10 years\*



LIFETIME SHINGLES COBRA ATTIC VENTILATION ROOF DECK PROTECTION LEAK BARRIER STARTER STRIP SHINGLES RIDGE CAP SHINGLES



\*See GAF Shingle & Accessory Ltd. Warranty for complete coverage and restrictions. The word "Lifetime" refers to the length of coverage provided by the GAF Shingle & Accessory Ltd. Warranty and means as long as the original individual owner(s) of a single-family detached residence (or the second owner(s) in certain circumstances) owns the property where the shingles and accessories are installed. For owners/structures not meeting the above criteria, Lifetime coverage is not applicable. Lifetime Ltd. Warranty on accessories requires the use of at least three qualifying GAF accessories and the use of Lifetime Shingles.



The GAF Lifetime Roofing System has earned the prestigious Good Housekeeping Seal, which means that Good Housekeeping stands behind the products in this system. (Refer to Good Housekeeping Magazine for its consumer protection policy. Applicable in U.S. only.)



[gaf.com](http://gaf.com)

**ANTI-CORROSIVE PAINT  
AND PRIMER**



Protective & Marine Coatings  
**EPIGRIP J984**  
**PRODUCT TECHNICAL DATA**

Revised 01/2014 Issue 16

## PRODUCT INFORMATION

### PRODUCT DESCRIPTION

#### EPIGRIP J984 ZINC RICH PRIMER

**Material Type:** A 2-pack epoxy zinc rich anti-corrosive primer.

### RECOMMENDED USE

Anti-corrosive protection of steel surfaces prepared by abrasive blast cleaning.

May be used as a repair primer for galvanised surfaces

### ENDORSEMENTS

Conforms to ISO 12944-5:1998 (E) - 5.2

### RECOMMENDED APPLICATION METHODS

Airless Spray

Brush ( for small areas and touch up only )

**Recommended Cleanser/Thinner:** No 5

### PRODUCT CHARACTERISTICS

**Flash Point:** Base : 23°C Additive : 23°C

**% Solids by Volume:** 62 ± 3% (ASTM-D2697-91)

**Pot Life:** 10 hrs @ 15°C, 8 hrs @ 23°C, 4 hrs @ 35°C

**Colour Availability:** Grey

#### VOC

331 gms/litre determined practically in accordance with UK Regulations PG6/23

399 gms/litre calculated from formulation to satisfy EC Solvent Emissions Directive

160 gms/kilo content by weight from formulation, to satisfy EC SED

### TYPICAL THICKNESS

Dry film thickness	Wet film thickness	Theoretical coverage
50 microns	81 microns	12.4 m <sup>2</sup> /ltr*

\* This figure makes no allowance for surface profile, uneven application, overspray or losses in containers and equipment. Film thickness will vary depending on actual use and specification.

### PRACTICAL APPLICATION RATES - MICRONS PER COAT

	Airless Spray	Brush
<b>Dry</b>	50*	40
<b>Wet</b>	81	65

\* Maximum sag tolerance typically 100µm dry by airless spray

### AVERAGE DRYING TIMES

	@ 5°C	@ 15°C	@ 23°C	@ 35°C
<b>To touch:</b>	15 minutes	12 minutes	10 minutes	5 minutes
<b>To recoat:</b>	6 hours	5 hours	4 hours	3 hours
<b>To handle:</b>	16 hours	14 hours	12 hours	10 hours

*These figures are given as a guide only. Factors such as air movement and humidity must also be considered.*

### RECOMMENDED PRIMERS / TOPCOATS

Indefinitely overcoatable with epoxy systems provided a minimum of 50 microns dft is obtained.

See additional Notes – Exposure to weathering overleaf.

**Do not overcoat with paints containing saponifiable resins such as oleo-resinous or alkyd based paints unless a non-saponifiable resin based barrier coat has been applied first.**

### PACKAGE

A two component material supplied in separate containers to be mixed prior to use

**Pack Size:** 10 litre and 5 litre units when mixed

**Mixing Ratio:** 4 parts base to 1 part additive by volume

**Weight:** 2.62 kg/litre

**Shelf Life:** 18 months from date of manufacture or 'Use By' date where specified



# EPIGRIP J984

## PRODUCT TECHNICAL DATA

Revised 01/2014 Issue 16

### PRODUCT INFORMATION

#### **SURFACE PREPARATION**

Blast clean to Sa2½ BS EN ISO 8501-1:2007. Average surface profile in the range 50 - 75 microns. Ensure surfaces to be coated are clean, dry and free from all surface contamination.

For repair of galvanizing, for small areas, abrade the surface to a minimum standard of St3 BS EN ISO 8501-1:2007 feathering off the edges of intact galvanizing surrounding such areas, and then brush apply the primer. For large areas it is recommended that the surface is flash blasted and the primer applied by the desired method.

#### **APPLICATION EQUIPMENT**

##### **Airless Spray**

Nozzle Size: 0.38mm (15 thou)

Fan Angle: 40°

Operating Pressure: 115kg/cm<sup>2</sup> (1600 psi)

The airless spray details given above are intended as a guide only. Details such as fluid hose length and diameter, paint temperature and job shape and size all have an effect on the spray tip and operating pressure chosen. However, the operating pressure should be the lowest possible consistent with satisfactory atomisation. As conditions will vary from job to job, it is the applicators' responsibility to ensure that the equipment in use has been set up to give the best results. If in doubt Sherwin-Williams should be consulted.

##### **Nozzle Size**

Environmental legislation now requires paint to contain less solvent. When using high solids coatings like Epigrip J984 Zinc Rich Primer, painters must use finer spray tips than previously to compensate for the natural tendency towards over-application and to help achieve good wet film formation.

##### **Brush**

The material is suitable for brush application to small areas and for touch up purposes. Application of more than one coat may be necessary to give equivalent dry film thickness to a single spray applied coat.

#### **APPLICATION CONDITIONS AND OVERCOATING**

Epoxy paints should preferably be applied at temperatures in excess of 10°C. In conditions of high relative humidity, ie 80-85% good ventilation conditions are essential. Substrate temperature should be at least 3°C above the dew point and always above 0°C.

At application temperatures below 10°C, drying and curing times will be significantly extended, and spraying characteristics may be impaired.

Application at ambient air temperatures below 5°C is not recommended.

In order to achieve optimum water and chemical resistance, temperature needs to be maintained above 10°C during curing.

If it is desired to overcoat outside the times stated on the data sheet, please seek advice of Sherwin-Williams.

#### **ADDITIONAL NOTES**

Drying times, curing times and pot life should be considered as a guide only.

The curing reaction of epoxies commences immediately the two components are mixed, and since the reaction is dependent on temperature, the curing time and pot life will be approximately halved by a 10°C increase in temperature and doubled by a 10°C decrease in temperature.

##### **Exposure to Weathering**

If Epigrip J984 is exposed to the weather, there is a risk of the formation of zinc salts on the surface, which must be removed by flash blasting or washing down prior to overcoating, otherwise intercoat adhesion may be adversely affected. The rate of zinc salt formation will vary from one location to another. Under severe conditions e.g. marine coastal, offshore or heavy industrial areas, it is strongly recommended that overcoating takes place within 7 days.

##### **Epoxy Coatings - Tropical Use**

Epoxy paints at the time of mixing should not exceed a temperature of 35°C. At this temperature the pot life will be approximately halved. Use of these products outside of the pot life may result in inferior adhesion properties even if the materials appear fit for application. Thinning the mixed product will not alleviate this problem.

The maximum air and substrate temperature for application is 50°C providing conditions allow satisfactory application and film formation. If the air and substrate temperatures exceed 50°C and epoxy coatings are applied under these conditions, paint film defects such as dry spray, bubbling and pinholing etc. can occur within the coating.

Numerical values quoted for physical data may vary slightly from batch to batch.

#### **HEALTH AND SAFETY**

Consult Product Health and Safety Data Sheet for information on safe storage, handling and application of this product.

#### **WARRANTY**

Any person or company using the product without first making further enquiries as to the suitability of the product for the intended purpose does so at their own risk, and Sherwin-Williams can accept no liability for the performance of the product, or for any loss or damage arising out of such use.

The information detailed in this Data Sheet is liable to modification from time to time in the light of experience and of normal product development, and before using, customers are advised to check with Sherwin-Williams, quoting the reference number, to ensure that they possess the latest issue.



# Protective & Marine Coatings

# MACROPOXY™ C400V3 EPOXY ZINC PHOSPHATE

FORMERLY KNOWN AS EPIGRIP C400V3

Revised 01/2016 Issue 9

## PRODUCT INFORMATION

### PRODUCT DESCRIPTION

A multi-functional Epoxy Zinc Phosphate coating for the protection of carbon steel

### RECOMMENDED USE

Macropoxy C400V3 Multi-functional Epoxy Coating is suitable for the protection of steelwork in a range of exposure environments from C1 to C5 as defined in ISO12944, including buildings, car parks, petrochemical plants, breweries and power stations. Not for immersion service. Often specified for use as a primer for structural steel on blast cleaned steel for internal and external environments, it may also be used as a high build intermediate coat as well as the final coat where a low sheen industrial and functional finish is required.

All Epoxy products will lose gloss and colour when exposed in an external environment and so where good colour and gloss retention is required in an external environment, or a full decorative finish is required in an internal environment, one of our topcoats designed specifically for this role should be chosen. A selection of available topcoats is listed in this data sheet under Recommended Topcoats.

Macropoxy C400V3 may be applied between 75 and 275 microns DFT in one coat depending on specification requirement. As many projects will differ in terms of client requirements and exposure environments, detailed project specifications are available from Sherwin-Williams separately.

### ENDORSEMENTS

BS476 Part 7 - Surface Spread of Flame  
BS6853 Appendix D - Smoke Emissions - For details of substrate/scheme, consult Sherwin Williams.

### RECOMMENDED APPLICATION METHODS

Airless Spray  
Conventional Spray  
Brush  
Roller

**Recommended Thinner:** No 2 (for thinning)  
No 9 or No 13 (for cleaning)

### PRODUCT CHARACTERISTICS

**Flash Point:** Base : 24°C Additive : 26°C

**% Solids by Volume:** 70 ± 3% (ASTM-D2697-91)

**Pot Life:** 2½ hours at 15°C 1½ hours at 23°C 1 hour at 35°C

**Colour Availability:** Limited range including MIO shades

#### VOC

257 gms/litre determined practically in accordance with UK Regulations PG6/23  
289 gms/litre calculated from formulation to satisfy EC Solvent Emissions Directive  
190 gms/kilo content by weight from formulation, to satisfy EC Solvent Emissions Directive

### RECOMMENDED THICKNESS

Dry film thickness	Wet film thickness	Theoretical coverage
75 microns	107 microns	9.33m <sup>2</sup> /ltr*

**The minimum specification for MIO shades is 100µm nominal dry film thickness.**

\* This figure makes no allowance for surface profile, uneven application, overspray or losses in containers and equipment. Film thickness will vary depending on actual use and specification

### PRACTICAL APPLICATION RATES - MICRONS PER COAT

	Airless Spray	Conventional Spray	Brush	Roller
<b>Dry</b>	75*	75	65	60
<b>Wet</b>	107	107	92	85

\* Maximum sag tolerance typically 571µ wet (400µm dry) by airless spray and 179µm wet (125µm dry) by brush.

### AVERAGE DRYING TIMES

	@ 15°C	@ 23°C	@ 35°C
<b>To touch:</b>	1½ hours	1 hour	¾ hour
<b>To recoat:</b>	5 hours	3½ hours	2 hours
<b>To handle:</b>	15 hours	7 hours	4 hours

**These figures are given as a guide only. Factors such as air movement and humidity must also be considered.**

### RECOMMENDED TOPCOATS

Indefinitely overcoatable with epoxy systems provided the surfaces to be coated have been suitably cleaned. Where a high degree of gloss and colour retention is required overcoat with Acrolon C137V2, Acrolon C237, Acrolon 1850 and Acrolon 7300 within 7 days at a minimum dft of 50 microns or in the case of Acrolon C750V2 overcoat within 4 days. These overcoating times refer to achievement of optimum adhesion @ 23°C and will vary with temperature. For overcoating with alkyd systems consult Sherwin-Williams for advice.  
Overcoatable with Sher-Cryl M770 Water Based Finish within 1 month @ 15°C

### PACKAGE

A two component material supplied in separate containers to be mixed prior to use

<b>Pack Size:</b>	20 litre and 5 litre units when mixed
<b>Mixing Ratio:</b>	7 parts base to 1 part additive by volume
<b>Weight:</b>	1.57 kg/litre (may vary with shade).
<b>Shelf Life:</b>	2 years from date of manufacture or 'Use By' date where specified



# Protective & Marine Coatings

# MACROPOXY™ C400V3 EPOXY ZINC PHOSPHATE

FORMERLY KNOWN AS EPIGRIP C400V3

Revised 01/2016 Issue 9

## PRODUCT INFORMATION

### SURFACE PREPARATION

Blast clean to Sa2½ BS EN ISO 8501-1:2007. Average surface profile in the range 50-75 microns.

Ensure surfaces to be coated are clean, dry and free from all surface contamination.

Manually prepared surfaces should be prepared to a minimum standard of St3 BS EN ISO 8501-1:2007 at the time of coating. Application to such surfaces should be by brush or roller where the mechanical action will aid adhesion.

### APPLICATION EQUIPMENT

Airless Spray	For dft applications between 75-125µ	For dft applications between 125-300µ
Nozzle Size:	0.33mm (13 thou)	0.38mm (15 thou)
Fan Angle:	40°	40°
Operating Pressure:	155kg/cm <sup>2</sup> (2200 psi)	155kg/cm <sup>2</sup> (2200 psi)

The airless spray details given above are intended as a guide only. Details such as fluid hose length and diameter, paint temperature and substrate shape and size all have an effect on the spray tip and operating pressure chosen. However, the operating pressure should be the lowest possible consistent with satisfactory atomisation. As conditions will vary from job to job, it is the applicators' responsibility to ensure that the equipment in use has been set up to give the best results. If in doubt Sherwin-Williams should be consulted. For MIO shades, use the 125-300µm recommendations.

#### Conventional Spray

Nozzle Size :	1.27mm (50 thou)
Atomising Pressure:	2.8kg/cm <sup>2</sup> (40 psi)
Fluid Pressure :	0.4kg/cm <sup>2</sup> (6 psi)

The details of atomising pressure, fluid pressure and nozzle size are given as a guide. It may be found that slight variations of pressure will provide optimum atomisation in some circumstances according to the set up in use. Atomising air pressure depends on the air cap in use and the fluid pressure depends on the length of line and direction of feed i.e. horizontal or vertical.

For application by conventional spray, it may be necessary to thin the paint by the addition of up to 10% Cleanser/Thinner No. 2. Where thinning has been carried out the wet film thickness must be adjusted accordingly.

#### Brush and Roller

The material is suitable for brush and roller application. Application of more than one coat may be necessary to give equivalent dry film thickness to a single spray applied coat.

### APPLICATION CONDITIONS AND OVERCOATING

This material should preferably be applied at temperatures in excess of 10°C. Relative humidity should not exceed 90% and in these conditions good ventilation is essential. Substrate temperature shall be at least 3°C above the dew point and always above 0°C.

At application temperatures below 10°C, drying and curing times will be significantly extended, and spraying characteristics may be impaired.

Application at ambient air temperatures below 5°C is not recommended.

In order to achieve optimum water and chemical resistance, temperature needs to be maintained above 10°C during curing.

If it is desired to overcoat outside the times stated on the data sheet, please seek advice of Sherwin-Williams.

### ADDITIONAL NOTES

Drying times, curing times and pot life should be considered as a guide only.

The curing reaction of epoxies commences immediately the two components are mixed, and since the reaction is dependent on temperature, the curing time and pot life will be approximately halved by a 10°C increase in temperature and doubled by a 10°C decrease in temperature.

#### Epoxy Coatings - Colour Stability:

Variable colour stability is a feature of epoxy materials which tend to yellow and darken with age whether used on internal or external areas. Therefore any areas touched-up and repaired with the same colour at a later date may be obvious due to this colour change.

When epoxy materials are exposed to ultra-violet light a surface chalking effect will develop. This phenomenon results in loss of gloss and a fine powder coating at the surface which may give rise to colour variation depending on the aspect of the steelwork. This effect in no way detracts from the performance of the system.

#### Epoxy Coatings - Tropical Use

Epoxy paints at the time of mixing should not exceed a temperature of 35°C. At this temperature the pot life will be approximately halved. Use of these products outside of the pot life may result in inferior adhesion properties even if the materials appear fit for application. Thinning the mixed product will not alleviate this problem.

The maximum air and substrate temperature for application is 50°C providing conditions allow satisfactory application and film formation. If the air and substrate temperatures exceed 50°C and epoxy coatings are applied under these conditions, paint film defects such as dry spray, bubbling and pinholing etc. can occur within the coating.

Numerical values quoted for physical data may vary slightly from batch to batch.

### HEALTH AND SAFETY

Consult Product Health and Safety Data Sheet for information on safe storage, handling and application of this product.

### WARRANTY

Any person or company using the product without first making further enquiries as to the suitability of the product for the intended purpose does so at their own risk, and Sherwin-Williams can accept no liability for the performance of the product, or for any loss or damage arising out of such use.

The information detailed in this Data Sheet is liable to modification from time to time in the light of experience and of normal product development, and before using, customers are advised to check with Sherwin-Williams, quoting the reference number, to ensure that they possess the latest issue.