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Version 1.2

UNITED COATINGS™ LIQUID-APPLIED ROOFING

Application & Specifications Manual



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United Coatings™ Liquid-Applied Roofing Application & Specifications Manual

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Thank you for consulting Version 1.2 of the *United Coatings™ Liquid-Applied Roofing Application & Specifications Manual*. This manual contains the latest information relating to the application of GAF's United Coatings™ Liquid-Applied roofing systems, and is based on our years of experience in the commercial roofing field. It has been prepared as a general guide to assist architects, engineers, roofing contractors, and owners in the use of our liquid-applied coating systems. You can find further information at www.gaf.com, or contact GAF Technical Services at 1-800-ROOF-411 (1-800-766-3411).

ABOUT GAF

As North America's largest roofing manufacturer, GAF proudly offers a comprehensive portfolio of award-winning, innovative roofing products for both residential and commercial properties. Supported by an extensive national network of factory-certified contractors, GAF has built its reputation—and its success—on its steadfast commitment to Advanced Quality, Industry Expertise, and Solutions Made Simple.

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

For more information about GAF, visit us at www.gaf.com.

SERVICES

- Every GAF roofing product benefits from the substantial resources available only from a multibillion-dollar corporation dedicated to roofing. Our 31 plants mean manufacturing expertise. Our extensive R&D organization means a constant focus on product and process improvement. GAF is a team of over 3,000 people dedicated to your roofing satisfaction.
- GAF has a network of sales representatives and distributors to supply and service its quality roofing systems throughout North America.
- Our Technical Helpline is a technical assistance service that allows you to contact us directly to speak with a technical representative about specifications, applications, code approvals, and product information. The Helpline number is 1-800-ROOF-411 (1-800-766-3411).
- Architectural Information Services (AIS) is a specification service that allows you to specify your exact roofing needs and we will send you a general specification that outlines your job summary, application method, product description, and detail drawings based on the information you provided. The phone number for AIS is 1-800-522-9224.
- Our Tapered Design Group (TDG) is one of the many services available to our customers to help reduce their hassles. We provide tapered insulation take-offs for architects, contractors, and distributors nationwide. Just send your roof plans and specifications to tdg@gaf.com. The phone number for TDG is 1-800-766-3411.
- Visit GAF on the web at www.gaf.com for extensive product information, specifications, and technical literature.

DISCLAIMER

- GAF manufactures and sells roofing materials and does NOT practice architecture or engineering. GAF is NOT responsible for the performance of its products when damage to its products is caused by such things as improper building design, construction flaws, or defects in workmanship.
- The design responsibility remains with the architect, engineer, roofing contractor, or owner, and construction details illustrated and described herein are furnished solely for guidance purposes. These guidelines should not be construed as being all-inclusive, nor should they be considered as a substitute for good application practices.
- Under no circumstances does GAF have any liability for costs or expenses arising out of or associated with the pre-existing presence of asbestos-containing materials or any other allegedly hazardous substances or materials on the roof to which the new GAF roofing materials are being applied.
- Information contained in this manual is presented in good faith and, to the best of GAF's knowledge, does not infringe upon any patents, foreign or domestic.
- As a part of its continuing efforts to improve the performance of its products, GAF periodically makes changes to its products and application specifications. The Company reserves the right to change or modify, at its discretion, any of the information, requirements, specifications, or policies contained herein. This manual supersedes all catalogs and previous manuals.

GENERAL DESIGN CONSIDERATIONS

HOW TO DETERMINE IF A ROOF IS A GOOD CANDIDATE FOR COATING

When installed on a new roof, a roof coating should:

- Be a component part of the larger warranted roofing system. This will ensure compatibility with the system and enhance overall performance of the system.
- Be installed after the roof has weathered as necessary. Weathering periods may vary depending upon the type of system to which the coating will be applied. Use of a primer may also be required for certain substrates to ensure adequate adhesion.

When installed on an existing roof, a roof coating should:

- Be compatible with the existing roof.
- Extend the remaining service life of the existing roof. Although a coating cannot add life back to a roof already beyond its service life, it can prevent a roof from aging as quickly as it would without the coating.
- Only be applied to a roof that drains properly. Some coatings may be adversely affected by the presence of ponding water. Therefore, areas of the existing roof that pond water should be repaired prior to coating.
- Only be applied to non-leaking roofs. While coatings may help seal some pinhole leaks not visible to the naked eye, they will not generally find and repair existing leaks. Accordingly, existing roof leaks will need to be identified and repaired prior to coating. (Allow repairs to fully dry prior to coating.)

Section 1

Guides

Coatings Comparison Guide

Application	Acrylic	Urethane	Silicone	Asphalt Emulsion	Aluminized Asphalt	Asphalt "Cutback"	SEBS
Cost	●	○	○	●	●	●	●
Ponding Water	●	●	●	●	●	●	●
Flammability	●	●	●	●	○	○	○
Application Window	●	●	●	●	●	●	●
Weathering	●	●	●	○	●	○	●
Hail/Impact	●	●	●	●	●	●	●
Fire Resistance	●	●	●	●	●	○	○
Reflectance/Emittance	●	●	●	○	○	○	●
Elongation	●	●	●	○	●	●	●
Tensile Strength	●	●	●	○	●	●	●
Chemical Resistance	●	●	●	●	●	●	●
Permeance	●	●	●	○	○	○	○
VOC	●	●	●	●	○	○	○
Toxicity	●	○	●	●	●	●	●
KEY ● Good to Excellent ● Fair to Variable ○ Least Favorable or Not Favorable							
Strengths	<ul style="list-style-type: none"> Water-based. Excellent balance of cost and performance. Easy to use and to clean up. Low VOC. Good reflectivity, elongation, tensile, and weathering properties. Perform well as cool roofs. 	<ul style="list-style-type: none"> Abrasion & hail resistance. High tensile strength. Good expansion & contraction (high stress areas). Excellent chemical resistance. 	<ul style="list-style-type: none"> Good ponding water resistance. Excellent long-term weathering. Does not chalk like acrylics. Good adhesion to many surfaces. 	<ul style="list-style-type: none"> Good filler/leveler on old "alligatored" roofs. 	<ul style="list-style-type: none"> Good product for black roofs. Can get hot enough to kill algae and mildew. Robust cure. Good water resistance. 	<ul style="list-style-type: none"> Good product for black roofs. Robust cure. Good water resistance. 	<ul style="list-style-type: none"> Robust cure and good water resistance. Good vapor barriers. Excellent adhesion on a variety of surfaces. Lower application temperature.
	<ul style="list-style-type: none"> Ponding water. Loses film thickness from aging (erosion). Application temperature must be above 50°F (10°C). Lack of early rain resistance. Poor color retention. Lower solids; will require more gallons/square than high solids coatings. 	<ul style="list-style-type: none"> Two-part (A and B) require proper mixing; has a shelf life. More expensive than acrylics. Will chalk over time (more than acrylic). 	<ul style="list-style-type: none"> High dirt pick-up (soft surface). Low abrasion resistance (not best for high traffic areas). Slick surface. Can only be recoated with silicone. 	<ul style="list-style-type: none"> Poor mechanical properties (e.g., tensile and elongation). High wash-off risk. Poor ponding water resistance. Not chemical resistant. 	<ul style="list-style-type: none"> Does not perform as well as cool roofs. Difficult to recoat with other products. Not very durable. 	<ul style="list-style-type: none"> Does not perform as well as cool roofs. Not good cool roofs. Not very durable; needs to be built up. 	<ul style="list-style-type: none"> Strong odor. Do not stay as white as acrylics. Low permeance can cause blisters in maintenance applications. High VOC. Flammable as they are solvent-based.
Weaknesses							

Product Guide

Type	Product	Description	Base/Cure	VOC (g/L)	% Solids by Volume
Primers & Cleaner	Acrylex 400 Primer	Water-Based Acrylic Primer For Metal	Water-Based	<50	36
	Adhere-It® II Primer	Water-Based Rinsable Primer For EPDM	Water-Based	n/a	n/a
	CleanAct Rinsable Primer	Water-Based Rinsable Primer For EPDM	Water-Based	n/a	n/a
	Epoxy Primer (formerly Uniseal Primer)	Water-Based Epoxy Primer For Concrete and Porous Substrates	Water-Based	<120	10.4
	Lock-Down Primer	Moisture-Cure Urethane Primer For Corrosion Protection On Metal Surfaces	Solvent Based/ Moisture-Cure	<420	55
	StableRust Primer	Water-Based Acrylic Rust-Inhibiting Primer	Water-Based	<200	56
	SureBond Primer	Water-Based Acrylic Primer For Chalky Surfaces	Water-Based	<200	23
	TPO Red Primer	Solvent-Based Primer For TPO Roofs	Solvent-Based	<50	1
	UniBase Primer	Water-Based Acrylic Penetrating Primer and Asphalt Bleed Blocker	Water-Based	<50	40
	Unisil Primer (Part A & B)	High Build Water-Based Epoxy Primer For Concrete and Porous Substrates	Water-Based	<60	42
	UniTile LV Sealer (Part A & B)	Solvent-Based Epoxy Penetrating Primer For Sealing Porous Surfaces	Two-Part	<250	53
	XR-2000 Primer	Water-Based Acrylic Primer For Kynar Coated Metal	Water-Based	<170	40
	United Cleaning Concentrate (UCC)	Water-Based Roof, Wall and Deck Surface Cleaner	Water-Based	n/a	n/a
	FireOut™ Fire Barrier Coating	Water-Based Coating For Wood Decks	Water-Based	<50	73
Roof Coatings	United Coatings™ Acron 60 Roof Coating	Water-Based Acrylic Coating For Spray Polyurethane Foam	Water-Based	<50	60
	United Coatings™ Acron DS Roof Coating	Water-Based Acrylic Coating For Spray Polyurethane Foam	Water-Based	<50	51
	United Coatings™ Diathon® Base Roof Coating	Water-Based Acrylic Base Coat For Spray Polyurethane Foam	Water-Based	<50	51
	United Coatings™ Diathon® DS Roof Coating	Water-Based Acrylic Top Coat For Spray Polyurethane Foam	Water-Based	<50	60
	United Coatings™ Diathon® HT Roof Coating	High Tensile Water-Based Top Coat For Spray Polyurethane Foam	Water-Based	<50	52
	United Coatings™ Diathon® QS Roof Coating	Quick Set Water-Based Top Coat For Spray Polyurethane Foam	Water-Based	<50	53
	United Coatings™ Diathon® Roof Coating	Water-Based Acrylic Top Coat For Spray Polyurethane Foam	Water-Based	<50	53
	United Coatings™ Elastuff® 101 Base Roof Coating	Aromatic Polyurethane Base Coat	Solvent Based/ Moisture-Cure	<250	80
	United Coatings™ Elastuff® 103 Roof Coating (Part A & B)	Aliphatic Polyurethane Top Coat	Two-Part	<250	58
	United Coatings™ EnergyCote™ Roof Coating	Water-Based Touch-Up Coating For EnergyCap Membranes	Water-Based	<50	51
	United Coatings™ FireShield® MB Roof Coating	Fire Resistant Acrylic Coating	Water-Based	<50	48
	United Coatings™ Kymax™ Coating	PVDF Fluoropolymer Top Coat	Water-Based	<250	36
	United Coatings™ Roof Mate Base Coating	Water-Based Acrylic Base Coat	Water-Based	<50	51
	United Coatings™ Roof Mate Coating	Water-Based Acrylic Top Coat	Water-Based	<50	53
United Coatings™ Roof Mate HT Coating	High Tensile Water-Based Acrylic Top Coat	Water-Based	<50	52	

* Based on ASTM C1549 and ASTM C1371 test methods.

Product Guide (cont'd.)

Type	Product	Description	Base/Cure	VOC (g/L)	% Solids by Volume	
Roof Coatings (Cont.)	United Coatings™ Roof Mate MB Plus Coating	Bleed Blocking Water-Based Acrylic Coating	Water-Based	<50	54	
	United Coatings™ Roof Mate OS Coating	Quick Set Water-Based Acrylic Coating	Water-Based	<50	53	
	United Coatings™ Roof Mate TCM Coating	Water-Based Acrylic Coating	Water-Based	<50	58	
	United Coatings™ Roof Mate WOB Coating	Water-Based Coating Without Biocides	Water-Based	<50	58	
	United Coatings™ Roofshield® Coating	Water-Based Acrylic Coating	Water-Based	<50	58	
	United Coatings™ Surface Seal SB Roof Coating	Solvent-Based Thermoplastic Coating	Solvent-Based	<450	50	
	United Coatings™ Unisil HS Roof Coating	High Solids Silicone Coating	Moisture-Cure	<50	96	
	United Coatings™ Unisil Roof Coating	Solvent-Based Silicone Coating	Solvent-Based	<350	68	
	United Coatings™ Acrysheen Sealer	Water-Based Penetrating Sealer	Water-Based	<200	18	
	United Coatings™ Aquathon® Wall Coating	Water-Based Coating For Masonry Walls	Water-Based	<50	55	
Architectural & Wall	United Coatings™ CanyonTone™ Clear Wall Coating	Clear Coat For Concrete, Brick, and Masonry Walls	Water-Based	<100	5	
	United Coatings™ CanyonTone™ Stain	For Concrete, Brick, and Masonry Walls	Water-Based	<100	24	
	United Coatings™ Elastuff® 120 Coating - Part A	Two-Part Urethane Coating	Two-Part	<50	100	
	United Coatings™ Elastuff® 120 Coating Part B Mastic	Two-Part Urethane Coating	Two-Part	<51	100	
	United Coatings™ Elastuff® 120 Coating Part B Roller Grade	Two-Part Urethane Coating	Two-Part	<52	100	
	United Coatings™ Elastuff® 120 Coating Part B Spray Grade	Two-Part Urethane Coating	Two-Part	<53	100	
	United Coatings™ Rhino Top Smooth Coating	Abrasion Resistant Water-Based Epoxy Modified Coating	Water-Based	<250	34	
	United Coatings™ Rhino Top Textured Coating	Abrasion Resistant Water-Based Epoxy Modified Coating	Water-Based	<100	41	
	FlexSeal™ Caulk Grade Sealant	Elastomeric Sealant	Solvent-Based	<300	75	
	FlexSeal™ Sealant	Self-Leveling Elastomeric Sealant	Solvent-Based	<300	66	
Flashing, Sealants & Accessories	United Coatings™ Roof Mate Butter Grade Flashing	Water-Based Acrylic Flashing	Water-Based	<50	58	
	United Coatings™ Roof Mate Fabric	Non-Woven Stitch-Bond Polyester Reinforcement	n/a	n/a	n/a	
	United Coatings™ Roof Mate Liquid Fabric	High Strength Water-Based Acrylic Flashing	Water-Based	<50	55	
	United Coatings™ Roof Mate Spray Grade Flashing	Sprayable Water-Based Acrylic Flashing	Water-Based	<50	56	
	United Coatings™ Roof Mate WOB Flashing	Water-Based Flashing Without Biocides	Water-Based	<50	58	
	United Coatings™ UniCap Fastener Cover	Self-Adhering Aluminum Caps For Fasteners	n/a	n/a	n/a	
	United Coatings™ Unisil Fiber Bulking Agent	Glass Fiber Bulking Agent	n/a	n/a	n/a	
	United Coatings™ UniTape Seam Tape	Self-Adhering Woven Polyester Seam Tape	n/a	n/a	n/a	

* Based on ASTM C1549 and ASTM C1371 test methods.

Cleaner & Primer Guide*

Substrate		Recommend UCC**	United Coatings™					Elastuff®
			Roof Mate	Diathon®	Surface Seal (Solvent)	Unisil (Solvent)	Unisil HS	
Metal	Rusty Metal	YES	Acrylex 400 (or StableRust)	n/a	Lock-Down Primer	No Primer	No Primer	Lock-Down Primer
	Severe Rusty Metal	YES	Lock-Down Primer	n/a	Lock-Down Primer	No Primer	No Primer	Lock-Down Primer
	Kynar Coated Metal	YES	XR-2000	n/a	n/a	XR-2000	n/a	n/a
Asphaltic (BUR, SBS, APP)	Residual Asphalt	YES	UniBase (or RM Base or MB Plus)	n/a	Unisil Primer	Unisil Primer	Unisil Primer	No Primer
	Smooth Asphaltic	YES	RM Base (or MB Plus)	n/a	Unisil Primer	Unisil Primer	Unisil Primer	No Primer
	Granulated Asphaltic	YES	UniBase (or RM Base or MB Plus)	n/a	Unisil Primer	Unisil Primer	Unisil Primer	No Primer
Single-Ply	TPO (new or aged)	YES	TPO Red Primer	n/a	n/a	n/a	n/a	n/a
	PVC (aged)	YES	Unisil Primer	n/a	n/a	Unisil Primer	Unisil Primer	n/a
	Hypalon (aged)	YES	No Primer	n/a	n/a	No Primer	Unisil Primer	n/a
Other	EPDM	NO	Adhere-It II (or CleanAct)	n/a	Adhere-It II (or CleanAct)	Adhere-It II (or CleanAct)	Adhere-It II & Unisil Primer	n/a
	SPF	NO	n/a	No Primer	n/a	No Primer	No Primer	No Primer
	Structural Concrete	YES	Epoxy Primer	n/a	UniTile LV Sealer	Unisil Primer	Unisil Primer	UniTile LV Sealer
	DensDeck & Securock	NO	n/a	n/a	n/a	n/a	n/a	n/a
	Plywood	NO	n/a	n/a	n/a	n/a	n/a	n/a
	ISO	NO	n/a	n/a	n/a	n/a	n/a	n/a
	Existing Acrylic Coating	YES	No Primer	No Primer	n/a	No Primer	Unisil Primer	n/a
	Existing Silicone Coating	YES	n/a	n/a	n/a	No Primer	n/a	n/a
	Corrugated Structural Transit Panels	YES	Epoxy Primer	n/a	UniTile LV Sealer	Unisil Primer	Unisil Primer	UniTile LV Sealer

* Adhesion Test is required. If less than 2.0 lb/in, a primer will be needed.

Refer to the Adhesion section within this manual

** GAF United Cleaning Concentrate

Liquid-Applied Seam Treatment Guide

Substrate		Roof Mate	Diathon®	Surface Seal	Unisil or Unisil II	Unisil HS or Unisil HS II	Elastuff®			
		PRODUCT OPTIONS (CHOOSE ONE)								
Metal	Horizontal Seams	Butter Grade Flashing w/Roof Mate Fabric	N/A	FlexSeal™ w/Roof Mate Fabric	Unisil Flashing Grade w/ Roof Mate Fabric	Unisil Flashing Grade w/ Roof Mate Fabric	Elastuff® 101 w/Roof Mate Fabric			
		Liquid Fabric**			Unisil w/Roof Mate Fabric	Unisil HS w/Roof Mate Fabric	Roof Mate Seam Tape or UniTape			
		Roof Mate Seam Tape or UniTape			Butter Grade Flashing w/Roof Mate Fabric	Roof Mate Seam Tape or UniTape				
					Liquid Fabric**					
	Vertical Seams [Overlap and Trapezoidal seams MUST be treated; other types can forgo treatment if the seal/tape is in tact or if the seam is double locked.]	Butter Grade Flashing	N/A	FlexSeal™	Unisil Flashing Grade	Unisil Flashing Grade	Elastuff® 101			
		Liquid Fabric**			Unisil w/Unisil Fibers	Unisil HS w/Unisil Fibers	Roof Mate Seam Tape or UniTape			
		Roof Mate Seam Tape or UniTape			Butter Grade Flashing	Roof Mate Seam Tape or UniTape				
					Liquid Fabric**					
Single-Ply	TPO [Limited and Emerald projects may forgo fabric at tight seams; loose seams require 3-coursing]	Butter Grade Flashing w/Roof Mate Fabric	N/A	N/A	Unisil Flashing Grade w/ Roof Mate Fabric	FOR UNISIL HS II ONLY	N/A			
		Roof Mate Seam Tape or UniTape			Unisil w/Roof Mate Fabric	Unisil Flashing Grade w/ Roof Mate Fabric				
					Butter Grade Flashing w/Roof Mate Fabric	Unisil HS II w/Roof Mate Fabric				
					Roof Mate Seam Tape or UniTape	Roof Mate Seam Tape or UniTape				
	PVC or Hypalon® [Limited and Emerald projects may forgo fabric at tight seams; loose seams require 3-coursing]	Butter Grade Flashing w/Roof Mate Fabric	N/A	N/A	Unisil Flashing Grade w/ Roof Mate Fabric	Unisil Flashing Grade w/ Roof Mate Fabric	N/A			
		Roof Mate Seam Tape or UniTape			Unisil w/Roof Mate Fabric	Unisil HS w/Roof Mate Fabric				
					Butter Grade Flashing w/Roof Mate Fabric	Roof Mate Seam Tape or UniTape				
					Roof Mate Seam Tape or UniTape					
	EPDM [Limited and Emerald projects may forgo fabric at tight seams; loose seams require 3-coursing]	Butter Grade Flashing w/Roof Mate Fabric	N/A	FlexSeal™ w/Roof Mate Fabric	Unisil Flashing Grade w/ Roof Mate Fabric	Unisil Flashing Grade w/ Roof Mate Fabric	N/A			
		Roof Mate Seam Tape or UniTape			Unisil w/Roof Mate Fabric	Unisil HS w/Roof Mate Fabric				
					Butter Grade Flashing w/Roof Mate Fabric	Roof Mate Seam Tape or UniTape				
					Roof Mate Seam Tape or UniTape					
Asphaltic	Smooth Asphaltic [Limited and Emerald projects may forgo fabric at tight seams; loose seams require 3-coursing]	Butter Grade Flashing w/Roof Mate Fabric	N/A	FlexSeal™ w/Roof Mate Fabric	Unisil Flashing Grade w/ Roof Mate Fabric	Unisil Flashing Grade w/ Roof Mate Fabric	Elastuff® 101 w/Roof Mate Fabric			
		Roof Mate Seam Tape or UniTape			Unisil w/Roof Mate Fabric	Unisil HS w/Roof Mate Fabric				
	Granulated Asphaltic [Limited and Emerald projects may forgo fabric at tight seams; loose seams require 3-coursing]				Butter Grade Flashing w/Roof Mate Fabric	N/A		FlexSeal™ w/Roof Mate Fabric	Unisil Flashing Grade w/ Roof Mate Fabric	Unisil Flashing Grade w/ Roof Mate Fabric
		Roof Mate Seam Tape or UniTape			Unisil w/Roof Mate Fabric				Unisil HS w/Roof Mate Fabric	
Other	Spray Polyurethane Foam	N/A	No Treatment	N/A	No Treatment	No Treatment	No Treatment			
	Structural Concrete [Structural joints to be treated with backer rod and compatible sealant, then coated over with outlined products listed here.]	Butter Grade Flashing w/Roof Mate Fabric	N/A	FlexSeal™ & Fabric	Unisil Flashing Grade w/Roof Mate Fabric	Unisil Flashing Grade w/ Roof Mate Fabric	Elastuff® 101 w/Roof Mate Fabric			
		Roof Mate Seam Tape or UniTape			Unisil w/Roof Mate Fabric	Unisil HS w/Roof Mate Fabric	Roof Mate Seam Tape or UniTape			
					Butter Grade Flashing w/Roof Mate Fabric					
	Corrugated Structural Transite Panels	Butter Grade Flashing w/Roof Mate Fabric	N/A	FlexSeal™ & Fabric	Unisil Flashing Grade w/Roof Mate Fabric	Unisil Flashing Grade w/ Roof Mate Fabric	Elastuff® 101 w/Roof Mate Fabric			
		Roof Mate Seam Tape or UniTape			Unisil w/Roof Mate Fabric	Unisil HS w/Roof Mate Fabric	Roof Mate Seam Tape or UniTape			
Butter Grade Flashing w/Roof Mate Fabric										

****Fabric is REQUIRED for Emerald & Diamond Guarantees; variances may be considered on a case-by-case basis.**

Warranty Guide

		Emerald Pledge ¹			Diamond Pledge ¹		
		10 yr	15 yr	20 yr ²	10 yr	15 yr	20 yr ²
UNITED COATINGS: Who can offer Warranty?							
	Retail Customer	No			No		
	Authorized Contractors	Yes for Metal, No for Non-Metal			No		
	Master & Master Select Contractors	Yes			Yes		
	Premium Contractors	Yes			Yes		
Requirements							
	Moisture Survey for Non-Metal Roofs	Yes			Yes		
	Pre-Inspection/Approval	Yes, for jobs over 20k sq.ft.			Yes, for jobs over 20k sq.ft.		
	Interim Inspection	Yes, for jobs over 10k sq.ft.			Yes		
	Final Inspection	Yes			Yes		
	Maintenance Program	Yes			Yes		
	Transferrable	No			Yes		
	Warranty Registration	Yes			Yes		
Coverage							
	Manufacturing Defects	Yes			Yes		
	Ordinary Wear & Tear	Yes			Yes		
	Workmanship	No			Yes		
Remedy							
	Materials	Yes			Yes		
	Labor	Yes			Yes		

NOTES:

1. Liquid-Applied Limited Warranty, Emerald Pledge, and Diamond Pledge must be applied per specifications, installed by an approved GAF contractor.
2. Pre-approval required for all 20-year Warranties by Director or above (Sales or Field Services).

Section 2

Substrate Preparation

GENERAL SUBSTRATE CONDITIONS

Preparation of the roof substrate is the responsibility of the installer, who must address and correct all of the conditions listed in this section.

- Examine substrates to receive new roofing. If any questions arise regarding the compatibility of United Coatings™ products with an existing substrate, Installer shall prepare test patches to check adhesion.
- Do not proceed with the installation of the United Coatings™ coating system until compatibility and adhesion of United Coatings™ coating system has been verified by test patches and other preparatory work has been completed and unsatisfactory conditions have been corrected.
- Roof must have positive drainage. Substrate should not pond water for more than 48 hours after precipitation stops.
 - GAF defines “ponding” as water that does not drain or dissipate from the roof surface within 48 hours after precipitation ends. Ponding can also result from other water sources, including improperly piped air conditioning condensate and steam condensate lines.
- Protect adjacent surfaces that will not be coated.
- Do not apply liquid-applied roofing products to surfaces unacceptable to GAF, or under inclement environmental conditions.
- Substrates must be clean, completely dry, and free of any debris before application of any liquid-applied products.
- United Coatings™ liquid-applied roofing products should not be used on heavy-traffic bearing substrates. If foot traffic is expected, a rooftop walkway system approved by GAF must be used.

Always contact GAF’s Technical Services Department (800-766-3411) for questions regarding suitable substrates, materials for test patches, or if you require additional information.

PROPER PREPARATION FOR ROOF TYPES

To ensure proper coating application, the existing roof membrane must be thoroughly cleaned. All dust, chalking film, bitumen exudate, greases or oils, and other loose debris should be removed prior to coating. Be careful when pressure washing to preserve the integrity of the existing roof membrane and to avoid damage to membrane seams (especially adhered seams). Allow roof to dry completely prior to coating. Any required roof or flashing repairs should be completed and allowed to adequately cure where necessary. Refer to specific sections of this manual for more information on roof preparation.

Depending on type of existing substrate and the coating to be applied, use of a primer may be required. Surfaces which typically require primer include: metal flashings, gravel stops, and other metal edging; concrete roof decks, masonry walls and floors, gypsum, and other porous surfaces. Refer to specific sections of this manual for detailed requirements.

While rusted metal roofs can be coated, additional measures may be required. If the roof is affected by “white rust” (i.e., zinc or aluminum), it can be coated after cleaning. However, if the roof is affected by “red rust,” the rust must either be removed or treated with corrosion inhibiting primer. Additionally, all rusted fasteners should also be removed or treated with a corrosion inhibiting primer.

WHAT IS BENEATH THE EXISTING ROOF SURFACE?

In membrane roof system, there is typically a layer of insulation beneath the membrane. If the roof has ever experienced leaks, it is possible that there are areas of wet insulation in the existing roofing system. All wet roof insulation must be removed and replaced prior to coating. While certain areas of wet insulation may be noticeable simply by walking on them, an infrared moisture scan is recommended to more accurately determine areas of wet insulation.

Metal roofs are typically installed over a solid roof deck or over purlins and insulation. Examining the underside of the roof deck can reveal areas of wet insulation, deteriorated deck or other damage that needs to be repaired prior to coating.

MOISTURE SURVEY

It is the responsibility of the roofing contractor to determine the suitability of any substrate to receive a liquid-applied coating system. Roof moisture surveys are a common tool used to assist with this determination. When the deck/substrate has more potential to “hold” water, a moisture survey may be required by GAF.

Alternately, for decks/substrates such as steel, the use of roof cuts to verify the suitability of the substrate can be effective.

Where a moisture survey is performed:

- GAF requires a moisture survey be conducted by the roofing contractor for Emerald and Diamond Pledge Guaranteed Systems prior to warranty issuance.
- If the moisture survey shows areas of the roof that are wet, remove and replace all wet areas with new materials. Make typical repairs with original roof technology and follow the appropriate surface preparation steps.
- Moisture surveys include: IR scans, nuclear scans, test/core cuts, and portable devices used to indicate moisture.

Liquid-Applied Coating Systems Roof Moisture Survey Criteria

Emerald & Diamond Pledge Guaranteed Systems			
Project Size	Less than 100 Sq.	100 Sq. or Greater	
Roof Survey Criteria	Roof Surveys Recommended	Roof Surveys Recommended	Roof Surveys Required
Deck/Substrate (non-standing seam metal†)	All*	<ul style="list-style-type: none"> • Steel* • Wood* • Cementitious Wood Fiber (Tectum or equivalent)* • Gypsum* 	<ul style="list-style-type: none"> • Structural Concrete • Lightweight Insulating Concrete • Existing Spray Polyurethane Foam • Any existing system with a vapor retarder • Any existing system that is a recover system • Any existing system with significant ponding water (e.g. poor drainage)
Liquid-Applied Limited Warranty			
Project Size	Any Project Size		
Roof Survey Criteria	Roof Surveys Recommended*		

*Without significant ponding water. Minimum of (3) three roof cuts for the first 100 squares and (1) one test cut per additional 100 squares are required to verify existing roof conditions are acceptable and/or to determine where moisture is present.

†Roof moisture surveys are not required/recommended for any system installed over an existing standing seam metal roof or when the liquid-applied coating system is applied directly to an approved deck (not as a recover system).

REPAIR

Inspect and make all necessary repairs to damaged substrates. Refer to the Damaged Substrate Treatment sections below for substrate-specific information.

Damaged Substrate Treatment: Metal	
Areas of Concern	Treatment
Rust Areas	<ul style="list-style-type: none"> Severely damaged or rusted seams and/or fasteners must be replaced. Roof panels that are corroded to the point where they have holes must be replaced. Light rust areas must be treated to prevent further deterioration on metal panels. Roof surface shall have no more than 20% rust.
Fasteners	<ul style="list-style-type: none"> All fasteners must be retightened, secured, or replaced as necessary. All stripped fasteners must be replaced with new larger fasteners. All deteriorated and missing fasteners must be replaced. All fasteners must be fully encapsulated with flashing grade coating or fastened with UniCap Fastener Covers (refer to the Product Data Sheet for specific application requirements).
Dented / Damaged Panels	<ul style="list-style-type: none"> Dents must be mechanically removed to the maximum extent possible. Cover broken rib area with a sheet metal cap and seal with flashing grade coating prior to attaching the cap with fasteners. Severely damaged roof panels must be replaced.
Excessive Gaps	<ul style="list-style-type: none"> Seal cracks, joints, penetrations, and curbs with appropriate sealant materials as recommended.
Seams	<ul style="list-style-type: none"> Repair all seams as needed. Refer to the Seam Treatment section in this guide for specific seam treatment guidance.
Open Ridge Vents	<ul style="list-style-type: none"> Replace or install sheet metal caps over the open ridge vents when they are rusted on the inside and/or located in a harsh environment (e.g., salt water areas). Do not seal weep holes on vents.

Damaged Substrate Treatment: Non-Metal

Substrate	Treatment
TPO	<ul style="list-style-type: none"> • Any areas where TPO has torn, cracked, and/or buckled must be repaired using similar compatible materials to the current roof. • Any wet insulation must be replaced. • Allow at least 48 hours drying time after the cleaning process before application of liquid-applied products.
PVC or Hypalon®	<ul style="list-style-type: none"> • Any areas where PVC or Hypalon has torn, cracked, and/or buckled must be repaired using similar products manufactured by GAF. • Any wet insulation must be replaced. • Allow at least 48 hours drying time before application of liquid-applied products.
Spray Polyurethane Foam	<ul style="list-style-type: none"> • All areas where the urethane foam has degraded must be scarified and re-foamed to bring substrate to a smooth, workable surface. • Any areas where foam has become wet must be removed and re-foamed.
EPDM	<ul style="list-style-type: none"> • Any areas where EPDM has torn, cracked, and/or buckled must be repaired using similar products. • Any wet insulation must be replaced.
Mineral & Granule Surfaced BUR or Modified Bitumen (SBS & APP) <u>OR</u> Smooth Surfaced BUR or Modified Bitumen (SBS & APP)	<ul style="list-style-type: none"> • Any areas where asphaltic membrane have blistered, buckled, become wet and/or otherwise been damaged must be removed and repaired using similar products manufactured by GAF. • New BUR or modified bitumen repair materials must be allowed to weather at least 30 days before applying liquid-applied products to repaired areas. • All areas where BUR or modified bitumen surface have significantly craze cracked (gaps 1/16" [1.6 mm] or greater in width and/or depth) must be repaired using flashing grade coating to create a smooth, workable surface on the substrate. • Allow flashing grade coating at least 24 hours drying time before application of liquid-applied products. Areas with thicker applications may require additional drying time. • Gravel-surfaced BUR or modified bitumen is not a suitable substrate to receive a liquid-applied coating.

Damaged Substrate Treatment- Non-Metal (Cont'd.)	
Substrate	Treatment
Corrugated Structural Transite Panels	<ul style="list-style-type: none"> • All large or excessive gaps (greater than 1/4" [6 mm]) existing between roof panels must be filled or made flush with closed-cell foam strips or polyurethane foam to pre-fill voids. • All fasteners must be retightened, secured, or replaced as necessary. All stripped fasteners must be replaced with larger fasteners. • All deteriorated or missing fasteners must be replaced. All fasteners must be fully encapsulated with flashing grade coating or fastened with UniCap Fastener Covers. • Repair all horizontal seams as needed. Refer to the Seam Treatment section in this guide for specific seam treatment guidance. • Many of these panels can contain asbestos. Refer to the Environmental Considerations in the Cleaning Procedures section for further information.
Wood OSB/Plywood/Tongue & Groove (some wood fiberboards are not coatable)	<ul style="list-style-type: none"> • Any areas where substrate is rotten, wet and/or otherwise damaged must be removed and repaired using similar products. • All large or excessive gaps (greater than 1/4" [6mm]) existing between roof panels and/or penetrations must be filled with flashing grade coating to create the substrate to a smooth, workable surface on the substrate. • All fasteners must be retightened, secured, or replaced as necessary. All stripped fasteners must be replaced with larger fasteners. • All deteriorated and missing fasteners must be replaced. All fasteners must be fully encapsulated with flashing grade coating.
Structural Concrete	<ul style="list-style-type: none"> • All large or excessive gaps (greater than 1/4" [6 mm]) must be repaired using high-quality concrete grout. Grout must fully cure before application of the liquid-applied coating system. • Correct areas of ponding water.

CLEANING PROCEDURES

Treatment	
General Surface Prep	<ul style="list-style-type: none"> • Clean and prepare surfaces to receive liquid-applied roofing products. Remove all dirt, dust, loose and flaking particles, grease, oil, laitance, pollution fallout, and other contaminants that may interfere with proper adhesion. • Use a stiff bristle push broom and/or pressure washing for cleaning and surface preparation. • When encountering roof substrates that have living organisms such as algae, mold or fungus , <u>a sterilant such as 3:1 bleach solution</u> must be used to kill and remove these organisms during the roof cleaning.
Pressure Washing	<ul style="list-style-type: none"> • Substrate must be pressure-washed with water and/or approved cleaner. Refer to the <i>Cleaner & Primer Guide</i> for specific cleaner information for the substrate you are working with. • A minimum working pressure of 2,000 psi is to be used to remove all dirt, dust, chalking and waste products (oil, oil-based roof cements, solvents, grease, animal fats, etc.). • Concrete, EPDM, and metal substrates should use a minimum working pressure of 3,000 psi. • Care should be taken not to damage the roof surface or inject water into the substrate during washing. • Allow at least 48 hours for complete drying after the cleaning process.
Important! Environmental Considerations	<ul style="list-style-type: none"> • Corrugated or structural transite panels are likely to contain significant amounts of asbestos, which may be released during pressure-washing. Asbestos dust is an extreme health hazard and known as a carcinogen. It is the Installer’s responsibility to check with state and local agencies regarding proper disposal, as well as the proper protection for workers exposed to this material. • Roof wash-off catchment systems should be in place when required. Be sure to follow state and local requirements for roof-wash off catchments during the cleaning process.

Substrate Preparation

Note: Under no circumstances does GAF have any liability for expenses arising out of or associated with the pre-existing presence of asbestos-containing materials or any other allegedly hazardous substances or materials in or on the roof to which the new GAF roofing materials are being applied.

GENERAL SUBSTRATE PREPARATION

Substrate Preparation: Metal	
Areas of Concern	Preparation
Crickets	<ul style="list-style-type: none"> • Sheet metal crickets must be installed according to manufacturer's specifications. • New crickets must be sealed with FlexSeal™ Sealant under the flanges before they are mechanically attached to the curb unit and metal roof panel. • Stitch-screw cricket flanges to the curb unit and metal roof panel while the FlexSeal™ Sealant is still wet using fasteners.
Ponding Water Areas	<ul style="list-style-type: none"> • Make every effort to eliminate all ponding water areas prior to coatings application. • Treat ponding water areas which cannot be eliminated with FlexSeal™ Sealant prior to application of other coatings.
Residual Asphalt	<ul style="list-style-type: none"> • Remove any existing asphaltic roof coating. • Any residual asphalt must be coated with the recommended coating for that system (see Cleaner Primer Guide).
Pre-Finished Metal Panels	<ul style="list-style-type: none"> • If roof panel surfaces are known or suspected to contain Kynar-500, other fluoropolymers, or silicone, test patches need to be prepared with and without the use of a recommended primer (see Cleaner Primer Guide). Based on test patch adhesion results, Installer should apply primer on pre-finished metal panels per specifications.
Pitch Pans	<ul style="list-style-type: none"> • Pitch pans must be capped with sheet metal so they can be sealed with United Coatings™ products. Contact GAF's Technical Services Department for more information.
Neoprene Pipe Boots	<ul style="list-style-type: none"> • Install neoprene boots prior to performing flashing work for certain types of pipe penetrations. Neoprene boots first must be sealed to the roof using a bead of FlexSeal™ Sealant prior to mechanical attachment with fasteners.
Condensate Lines	<ul style="list-style-type: none"> • Condensate lines should be installed from the HVAC units to gutters as part of the overall roofing contract. Type of piping used for condensate lines may vary depending on local building codes. • Condensate lines must be securely fastened to panel ribs.
Gutter Straps	<ul style="list-style-type: none"> • All gutter straps that are fastened above roof panels must be fully encapsulated with the recommended coating, including the fasteners
Gutters	<ul style="list-style-type: none"> • Trowel or brush apply FlexSeal™ Sealant to the interior or exterior gutter incorporating 12 inches (305 mm) of the recommended fabric at all gutter seams.
Cinch Straps at Panel End Laps	<ul style="list-style-type: none"> • Re-tighten cinch straps as necessary. • Surround each strap and fastener head with a bead of FlexSeal™ Sealant. • Fully inject FlexSeal™ Sealant into the cinch strap water channel, then seal the entire lap, strap, and fastener heads with a minimum 12 inch (305 mm) width of FlexSeal™ Sealant. Feather the FlexSeal™ Sealant out. Fabric is not required.

Substrate Preparation: Metal (Cont'd.)	
Areas of Concern	Preparation
Ridge Caps	<ul style="list-style-type: none"> • All ridge caps must be flashed with the recommended coating and fabric. • All voids and open areas in the ridge cap must be filled with polyurethane foam prior to application of the coating and fabric. • For metal "Z" closures which are located within 2 inches (51 mm) of the ridge cap edge, remove all exposed sealant and apply a liberal bead of the recommended seam coating to all sides of the "Z" closure where they intersect with both the roof panel and ridge cap.
Rakes	<ul style="list-style-type: none"> • All fixed rake details for the roof must be secured and sealed with a 12 inch (305 mm) minimum width of the recommended coating and fabric. • If fixed rake metal is fastened to the top of roof panel ribs and extends back onto the roof, trim off any excess metal and follow horizontal seam flashing procedures. • All voids and open areas must be filled with polyurethane foam prior to application of the coating and fabric.
Parapet Walls	<ul style="list-style-type: none"> • All parapet wall details within the roof system must be secured and sealed with a 12 inch (305 mm) minimum width of the recommended coating and fabric. • If parapet wall flashing metal is fastened to the top of roof panel ribs and extends back onto the roof, trim off any excess metal and follow horizontal seam flashing procedures. • All voids and open areas must be filled with polyurethane foam prior to application of the recommended coating and fabric. • Fabric to be cut around all fasteners so it lies flat. United Coatings UniCap fastener covers can alternatively be used.
Standing Seam Panels	<ul style="list-style-type: none"> • Contact GAF's Technical Services Department (800-766-3411).
Curb Flashings	<ul style="list-style-type: none"> • All curb flashings, including cricket details, must be flashed with at least a 12 inch (305 mm) width of the recommended coating and fabric. • Encapsulate all fasteners using the recommended coating. Do not bridge fasteners. • The fabric must be cut around all fasteners so the fabric lies flat.
Penetrations	<ul style="list-style-type: none"> • The recommended seam coating to be applied around the base of all penetrations, extending at least 6 inches (152 mm) up the vertical and 6 inches (152 mm) onto the base. • Embed a 12 inch (305 mm) width of the recommended fabric using coating. • Cut the fabric to accommodate the shape of the penetration.
Skylights	<ul style="list-style-type: none"> • Curb skylights must be treated in the same fashion as curb flashings. • After flashing work has been completed and the coating has cured, treat deteriorated fiberglass skylight panels with United Coatings™ Acrysheen Sealer.

Substrate Preparation: Metal (Cont'd.)		
	Areas of Concern	Preparation
VERTICAL SEAMS	Ribbed Seam	<ul style="list-style-type: none"> All ribbed panel vertical seams must be sealed with the recommended seam coating. Feather the coating until seams are no longer visible while brushing in the direction parallel to the seam.
	Standing Seam	<ul style="list-style-type: none"> All standing vertical seams must be sealed with a 1/2 inch (12 mm) bead of the recommended seam coating. Feather the coating until seams are no longer visible while brushing in the direction parallel to the seam.
	Standing "T" Seam	<ul style="list-style-type: none"> Both vertical seams of the standing "T" must be flashed with a 1/2 inch (12 mm) bead of the recommended seam coating for that particular system and brushed into the seams.
	Inverted "J" Seam	<ul style="list-style-type: none"> In snowy climates and/or when roof leaks are suspected, re-crimping the short leg of the seam all the way under the horizontal portion of the inverted "J" seam is required. Brush or trowel-apply the recommended seam coating over the newly created single lock vertical seam. Portable seamers may be used to perform the re-crimping.
	Corrugated Seam	<ul style="list-style-type: none"> All corrugated panel vertical seams must be sealed with the recommended seam coating for that particular coatings system. Feather the coating until seams are no longer visible while brushing in the direction parallel to the seam.
	Batten Seam	<ul style="list-style-type: none"> Both vertical seams of the batten must be flashed with a 1/2 inch (12 mm) bead of the recommended seam coating. Feather the coating until seams are no longer visible while brushing in the direction parallel to the seam.
HORIZONTAL SEAMS	Horizontal Seam	<ul style="list-style-type: none"> All seams must be reinforced with either fabric between two layers of the recommended coating or Roof Mate Liquid Fabric. The coating must be feathered at least 1 inch (25 mm) beyond each side of the 6 inch (152 mm) width to allow water to flow over the seam. Fabric must be cut around all fasteners so it lies flat. For ribbed roof panels, the fabric must be applied over panel ribs in continuous lengths. A minimum 2 inches (51 mm) overlap is required for all splices in fabric. Horizontal seams must be secured with fasteners on the high side of every other corrugation, spaced no more than 12 inches (305 mm) on center. The horizontal seam must be made flush by installing two fasteners per flute.

Substrate Preparation: Spray Polyurethane Foam (SPF)

Areas of Concern	Treatment
Parapet Walls	<ul style="list-style-type: none"> • SPF is self-flashing and should be adhered to all adjacent surfaces. • Repair any minor separations from shrinkage with the specified flashing grade.
Curb Flashings	<ul style="list-style-type: none"> • SPF is self-flashing and should be adhered to all adjacent surfaces. • Repair any minor separations from shrinkage with the specified flashing grade.
Penetrations	<ul style="list-style-type: none"> • SPF is self-flashing and should be adhered to all adjacent surfaces. • Repair any minor separations from shrinkage with the specified flashing grade.
Skylights	<ul style="list-style-type: none"> • Curb skylights must be treated in the same fashion as curb flashings. • After flashing work has been completed and the coating has cured, treat deteriorated fiberglass skylight panels with United Coatings™ Acrysheen Sealer.
Gutters	<ul style="list-style-type: none"> • Trowel or brush apply FlexSeal™ Sealant to the interior or exterior gutter incorporating 12 inches (305 mm) of the recommended fabric at all gutter seams.
Pitch Pans	<ul style="list-style-type: none"> • Pitch pans shall be capped with sheet metal so they may be sealed with United Coatings™ products.
Condensate Lines	<ul style="list-style-type: none"> • Condensate lines must be installed from HVAC units to gutters as part of the overall drainage system. The type of piping used for condensate lines may vary depending on local building codes.

Substrate Preparation: TPO	
Areas of Concern	Treatment
Parapet Walls	<ul style="list-style-type: none"> • Repair all open seams and any loose or failed terminations with in-kind materials prior to application of the recommended coating and fabric. • All parapet wall details within the roof system must be secured and sealed with a 12 inch (305 mm) minimum width of the recommended coating and fabric. • Fabric must be cut around all fasteners so it lies flat.
Curb Flashings	<ul style="list-style-type: none"> • All curb flashings, including cricket details, must be flashed with at least a 12 inch (305 mm) width of the recommended coating and fabric. • Encapsulate all fasteners using the recommended coating. Do not bridge fasteners. • The fabric must be cut around all fasteners so the fabric lies flat.
Penetrations	<ul style="list-style-type: none"> • The recommended seam coating must be applied around the base of all penetrations, extending at least 6 inches (152 mm) up the vertical and 6 inches (152 mm) onto the base. • Embed a 12 inch (305 mm) width of the recommended fabric using coating. • Cut the fabric to accommodate the shape of the penetration.
Skylights	<ul style="list-style-type: none"> • Curb skylights must be treated in the same fashion as curb flashings. • After flashing work has been completed and the coating has cured, treat deteriorated fiberglass skylight panels with United Coatings™ Acrysheen Sealer.
Gutters	<ul style="list-style-type: none"> • Trowel or brush apply FlexSeal™ Sealant to the interior or exterior gutter incorporating 12 inches (305 mm) of the recommended fabric at all gutter seams.
Pitch Pans	<ul style="list-style-type: none"> • Pitch pans must be capped with sheet metal so that they may be sealed with United Coatings™ products.
Condensate Lines	<ul style="list-style-type: none"> • Condensate lines must be installed from HVAC units to gutters as part of the overall drainage system. The type of piping used for condensate lines may vary depending on local building codes.

Substrate Preparation: PVC & Hypalon	
Areas of Concern	Treatment
Parapet Walls	<ul style="list-style-type: none"> • Repair all open seams and any loose or failed terminations with in-kind materials prior to application of the recommended coating and fabric. • All parapet wall details within the roof system must be secured and sealed with a 12 inch (305 mm) minimum width of the recommended coating and fabric. • Fabric to be cut around all fasteners so it lies flat.
Curb Flashings	<ul style="list-style-type: none"> • All curb flashings, including cricket details, must be flashed with at least a 12 inch (305 mm) width of the recommended coating and fabric. • Encapsulate all fasteners using the recommended coating. Do not bridge fasteners. • The fabric must be cut around all fasteners so the fabric lies flat.
Penetrations	<ul style="list-style-type: none"> • The recommended seam coating must be applied around the base of all penetrations, extending at least 6 inches (152 mm) up the vertical and 6 inches (152 mm) onto the base. • Embed a 12 inch (305 mm) width of the recommended fabric using coating. • Cut the fabric to accommodate the shape of the penetration.
Skylights	<ul style="list-style-type: none"> • Curb skylights must be treated in the same fashion as curb flashings. • After flashing work has been completed and the coating has cured, treat deteriorated fiberglass skylight panels with United Coatings™ Acrysheen Sealer.
Gutters	<ul style="list-style-type: none"> • Trowel or brush apply FlexSeal™ Sealant to the interior or exterior gutter incorporating 12 inches (305 mm) of the recommended fabric at all gutter seams.
Pitch Pans	<ul style="list-style-type: none"> • Pitch pans must be capped with sheet metal so that they may be sealed with United Coatings™ products.
Condensate Lines	<ul style="list-style-type: none"> • Condensate lines must be installed from HVAC units to gutters as part of the overall drainage system. The type of piping used for condensate lines may vary depending on local building codes.

Substrate Preparation: EPDM	
Areas of Concern	Treatment
Parapet Walls	<ul style="list-style-type: none"> • Repair all open seams and any loose or failed terminations with in-kind materials prior to application of the recommended coating and fabric. • All parapet wall details within the roof system must be secured and sealed with a 12 inch (305 mm) minimum width of the recommended coating and fabric. • Fabric must be cut around all fasteners so it lies flat.
Curb Flashings	<ul style="list-style-type: none"> • All curb flashings, including cricket details, must be flashed with at least a 12 inch (305 mm) width of the recommended coating and fabric. • Encapsulate all fasteners using the recommended coating. Do not bridge fasteners. • The fabric must be cut around all fasteners so the fabric lies flat.
Penetrations	<ul style="list-style-type: none"> • The recommended seam coating must be applied around the base of all penetrations, extending at least 6 inches (152 mm) up the vertical and 6 inches (152 mm) onto the base. • Embed a 12 inch (305 mm) width of the recommended fabric using coating. • Cut the fabric to accommodate the shape of the penetration.
Skylights	<ul style="list-style-type: none"> • Curb skylights must be treated in the same fashion as curb flashings. • After flashing work has been completed and the coating has cured, treat deteriorated fiberglass skylight panels with United Coatings™ Acrysheen Sealer.
Gutters	<ul style="list-style-type: none"> • Trowel or brush apply FlexSeal™ Sealant to the interior or exterior gutter incorporating 12 inches (305 mm) of the recommended fabric at all gutter seams.
Pitch Pans	<ul style="list-style-type: none"> • Pitch pans must be capped with sheet metal so that they may be sealed with United Coatings™ products.
Condensate Lines	<ul style="list-style-type: none"> • Condensate lines must be installed from HVAC units to gutters as part of the overall drainage system. The type of piping used for condensate lines may vary depending on local building codes.

Substrate Preparation: Smooth & Granulated Surfaced Asphaltic

Areas of Concern	Treatment
Parapet Walls	<ul style="list-style-type: none"> • Repair all open seams and any loose or failed terminations with in-kind materials prior to application of the recommended coating and fabric. • All parapet wall details within the roof system must be secured and sealed with a 12 inches (305 mm) minimum width of the recommended coating and fabric. • Fabric must be cut around all fasteners so it lies flat.
Curb Flashings	<ul style="list-style-type: none"> • All curb flashings, including cricket details, must be flashed with at least a 12 inch (305 mm) width of the recommended coating and fabric. • Encapsulate all fasteners using the recommended coating. Do not bridge fasteners. • The fabric must be cut around all fasteners so the fabric lies flat.
Penetrations	<ul style="list-style-type: none"> • The recommended seam coating must be applied around the base of all penetrations, extending at least 6 inches (152 mm) up the vertical and 6 inches (152 mm) onto the base. • Embed a 12 inch (305 mm) width of the recommended fabric using coating. • Cut the fabric to accommodate the shape of the penetration.
Skylights	<ul style="list-style-type: none"> • Curb skylights must be treated in the same fashion as curb flashings. • After flashing work has been completed and the coating has cured, treat deteriorated fiberglass skylight panels with United Coatings™ Acrysheen Sealer.
Gutters	<ul style="list-style-type: none"> • Trowel or brush apply FlexSeal™ Sealant to the interior or exterior gutter incorporating 12 inches (305 mm) of the recommended fabric at all gutter seams.
Pitch Pans	<ul style="list-style-type: none"> • Pitch pans must be capped with sheet metal so that they may be sealed with United Coatings™ products.
Condensate Lines	<ul style="list-style-type: none"> • Condensate lines must be installed from HVAC units to gutters as part of the overall drainage system. The type of piping used for condensate lines may vary depending on local building codes.

Substrate Preparation: Structural Concrete	
Areas of Concern	Treatment
Parapet Walls	<ul style="list-style-type: none"> • Repair all cracked, spalled and open concrete holes with an in-kind cementitious patch. Repair any loose or failed seams with similar materials as originally used. This is commonly a polyurethane sealant with a closed cell polyethylene backer rod. • All parapet wall details within the roof system must be secured and sealed with a 12 inch (305 mm) minimum width of the recommended coating and fabric. • Fabric must be cut around all fasteners so it lies flat.
Curb Flashings	<ul style="list-style-type: none"> • All curb flashings, including cricket details, must be flashed with at least a 12 inch (305 mm) width of the recommended coating and fabric. • Encapsulate all fasteners using the recommended coating. Do not bridge fasteners. • The fabric must be cut around all fasteners so the fabric lies flat.
Penetrations	<ul style="list-style-type: none"> • The recommended seam coating must be applied around the base of all penetrations, extending at least 6 inches (152 mm) up the vertical and 6 inches (152 mm) onto the base. • Embed a 12 inch (305 mm) width of the recommended fabric using coating. • Cut the fabric to accommodate the shape of the penetration.
Skylights	<ul style="list-style-type: none"> • Curb skylights must be treated in the same fashion as curb flashings. • After flashing work has been completed and the coating has cured, treat deteriorated fiberglass skylight panels with United Coatings™ Acrysheen Sealer.
Gutters	<ul style="list-style-type: none"> • Trowel or brush apply FlexSeal™ Sealant to the interior or exterior gutter incorporating 12 inches (305 mm) of the recommended fabric at all gutter seams.
Pitch Pans	<ul style="list-style-type: none"> • Pitch pans must be capped with sheet metal so that they may be sealed with United Coatings™ products.
Condensate Lines	<ul style="list-style-type: none"> • Condensate lines must be installed from HVAC units to gutters as part of the overall drainage system. The type of piping used for condensate lines may vary depending on local building codes.

Adhesion Testing

Adhesion testing is generally performed to verify the suitability of any substrate to receive a liquid-applied coating system. It is the responsibility of the roofing contractor to determine the suitability of the substrate prior to the application of a liquid-applied coating system, as well as whether priming is required.



When adhesion tests are conducted:

- Test patches shall be labeled and photographed to document adhesion results.
- Installer can consult with GAF's Technical Services Department (800-766-3411) concerning all adhesion test results.

GAF recommends either of the following test methods:

Test Method #1: Test Patches	
Overview	Patch testing gives information about the bond strength created between a liquid-applied product and a substrate.
Preparation	<ul style="list-style-type: none"> • Installer should prepare no fewer than three (3) test patches at different locations on the roof for all questionable roof substrates to verify adhesion of the liquid-applied coating system.
Test Method	<ul style="list-style-type: none"> • Minimum test patch size should be 1 square foot (0.09 square meter). • Allow at least seven (7) full 24 hour days of drying time after application of the test patches before checking adhesion. • Check adhesion by slicing an "X" (approx. 6" [152 mm] in size) near the center of the test patch. • Using a spatula, try to remove the material at the center of the "X".
Acceptable Result:	<ul style="list-style-type: none"> • Test patches that show good adhesion will release or chip away from the surface in very small pieces.
Unacceptable Result:	<ul style="list-style-type: none"> • Test patches that peel off of the surface and show the underlying substrate show poor adhesion.

Test Method #2: Field Peel Adhesion (Alternate to Test Patches)

Overview	ASTM D903 “Peel Adhesion” is found in all roof coating standards and is especially well suited to field testing with elastomeric materials. Primers and enamels may also be evaluated by a similar test called ASTM D3359 “Tape Adhesion.” It may also be important to run the test wet to determine “wet adhesion.”
Preparation	<ul style="list-style-type: none"> • Make a mock-up of the intended coating system on the existing roof surface. • Duplicate any mechanical surface preparation. • Simulate cleaners and power washing. <ul style="list-style-type: none"> • A worn Scotch-Brite® cleaning pad makes a good power washing simulation. • Prime as specified. • Apply a layer of elastomeric coating to the substrate. • Installer should prepare no fewer than three (3) test patches at different locations on the roof for all questionable roof substrates to verify adhesion of the liquid-applied coating system.
Test Method <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	<ul style="list-style-type: none"> • Wet about 6” (152 mm) of a pre-cut 1” (25 mm) wide by 12” (305 mm) long fabric strip with the coating. • Allow the remaining 6” (152 mm) of the fabric to be available to pull on the test sample. • Apply another layer of coating to encapsulate the wetted section of fabric. • Allow to dry. This can be anywhere from 24 hours to 2 weeks. <ul style="list-style-type: none"> • In warm weather, 1 day may be sufficient. • In cold weather, 5 days is often required. • The standard practice is 1 week. • Soak prior to testing (best practice). <ul style="list-style-type: none"> • One hour is usually sufficient, use wet rag and cover with a bucket lid or plastic. • Some coatings like a polyvinylidene difluoride (PVDF) or silicone may take longer.
Optional	<ul style="list-style-type: none"> • Pre-cut 1” (25 mm) wide strips of butyl tape work faster and can be used in a post-installation inspection. A “wet adhesion” version can be accomplished by soaking the roof area first as indicated above, and then towel dry. Then use butyl tape to run the pull test. The butyl tape can be easier to use with a gauge as it will bond to itself making a perfect loop.

Quantitative Evaluation (best practice)

- Use a force gauge such as a digital fish scale or trigger pressure gauge.
- A loop, staple or clamp may be used to hold the fabric in the gauge.
- Pull slowly; the peak value should be above 2 pounds/inch.

Qualitative Evaluation

- Excellent:** Coating tears up the substrate (cohesive failure of substrate)
- Very Good:** Most of the coating remains on the substrate (cohesive failure of coating)
- Good:** Some coating remains on the substrate (partial cohesive failure of coating)
- Fair:** Coating pulls clean but pulls below 2 pounds/inch
- Poor:** Test strip comes off easily and cleanly (complete cohesive failure of coating)

Section 3

Quick Specs

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Quick Specs are abbreviated specifications and are not meant to replace detailed specifications. Complete 3-part CSI System Specifications are available at www.gaf.com.

ROOF MATE QUICK SPEC

METAL (RM-1)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Roof Mate, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Tighten and/or replace existing fasteners.
 3. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 4. Install crickets to divert water and complete other necessary sheet metal repairs.
 5. Prime rusty areas with Acrylex 400 Primer or StableRust Rust-Inhibiting Primer. For severe rust, prime area with Lock-Down Primer.
 6. Horizontal seams must be 3-coursed with flashing grade and fabric. Overlap and trapezoidal vertical seams must be treated with flashing grade only. Other vertical seams may forgo treatment **IF** the seal/tape is intact on the seam or if they are double locked.
 7. Treat all roof penetrations, skylight curbs and rake edges.
 8. Encapsulate fasteners with Roof Mate Butter Grade.
 9. Apply coating per the chart below:

SEAMS & DETAILS ROOF MATE			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Roof Mate Butter Grade and Fabric	4.0	43
Flashing Grade Only Rates	Roof Mate Butter Grade	2.0	19

METAL ROOF MATE								
Warranty Term	Coating				Total		Warranty	
	Product (Choose one)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	Roof Mate & QS	1.00	1.50		2.50	21	Yes	Yes
	Roof Mate HT	1.00	1.50		2.50	21		
	Roof Mate TCM	1.00	1.00		2.00	19		
15 Year	Roof Mate & QS	1.00	1.50	1.00	3.50	30	Yes	Yes
	Roof Mate HT	1.00	1.50	1.00	3.50	29		
	Roof Mate TCM	1.50	1.75		3.25	30		
20 Year	Roof Mate & QS	1.50	1.50	1.50	4.50	38	Yes	Yes
	Roof Mate HT	1.50	1.50	1.50	4.50	38		
	Roof Mate TCM	1.50	1.50	1.50	4.50	42		

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.
 Note: DFT for 3-coursed rates includes 6 mils for the fabric.

ROOF MATE QUICK SPEC

TPO (RM-2)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Roof Mate, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime using TPO Red Primer.
 6. Treat all roof penetrations, drains, curbs, and scuppers.
 7. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 8. Apply coating per the chart below:

SEAMS & DETAILS ROOF MATE			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Roof Mate Butter Grade and Fabric	4.0	43
Flashing Grade Only Rates	Roof Mate Butter Grade	2.0	19

TPO ROOF MATE								
Warranty Term	Coating				Total		Warranty	
	Product (Choose one)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	Roof Mate & QS	1.5	1.5		3.0	26	Yes	No
	Roof Mate HT	1.5	1.5		3.0	25		
	Roof Mate TCM	1.0	1.5		2.5	23		
15 Year	Roof Mate & QS	1.5	1.5	1.0	4.0	34	Yes	No
	Roof Mate HT	1.5	1.5	1.0	4.0	33		
	Roof Mate TCM	1.0	1.5	1.0	3.5	33		

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor. Note: DFT for 3-coursed rates includes 6 mils for the fabric.

ROOF MATE QUICK SPEC

PVC (RM-3)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

Requirements

- Moisture survey required.
- Roof must be clean, dry, and tight.
- Adhesion test required to ensure proper adhesion to substrate(s).
- Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
- GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

Application Instructions

1. Before applying Roof Mate, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
2. Conduct moisture survey and remove/replace all wet areas.
3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
5. Prime using Unisil Primer.
6. Treat all roof penetrations, drains, curbs, and scuppers.
7. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
8. Apply coating per the chart below:

SEAMS & DETAILS ROOF MATE			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Roof Mate Butter Grade and Fabric	4.0	43
Flashing Grade Only Rates	Roof Mate Butter Grade	2.0	19

PVC ROOF MATE								
Warranty Term	Coating				Total		Warranty	
	Product (Choose one)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	Roof Mate & QS	1.5	1.5		3.0	26	Yes	No
	Roof Mate HT	1.5	1.5		3.0	25		
	Roof Mate TCM	1.0	1.5		2.5	23		
15 Year	Roof Mate & QS	1.5	1.5	1.0	4.0	34	Yes	No
	Roof Mate HT	1.5	1.5	1.0	4.0	33		
	Roof Mate TCM	1.0	1.5	1.0	3.5	33		

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste
 Note: DFT for 3-coursed rates includes 6 mils for the fabric.

ROOF MATE QUICK SPEC

HYPALON® (RM-4)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Roof Mate, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Treat all roof penetrations, drains, curbs, and scuppers.
 6. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 7. Apply coating per the chart below:

SEAMS & DETAILS ROOF MATE			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Roof Mate Butter Grade and Fabric	4.0	43
Flashing Grade Only Rates	Roof Mate Butter Grade	2.0	19

HYPALON® ROOF MATE								
Warranty Term	Coating				Total		Warranty	
	Product (Choose one)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	Roof Mate & QS	1.5	1.5		3.0	26	Yes	No
	Roof Mate HT	1.5	1.5		3.0	25		
	Roof Mate TCM	1.0	1.5		2.5	23		
15 Year	Roof Mate & QS	1.5	1.5	1.0	4.0	34	Yes	No
	Roof Mate HT	1.5	1.5	1.0	4.0	33		
	Roof Mate TCM	1.0	1.5	1.0	3.5	33		

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor. Note: DFT for 3-coursed rates includes 6 mils for the fabric.

ROOF MATE QUICK SPEC

EPDM (RM-5)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Roof Mate, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Clean roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion and allow the roof to completely dry.
 5. Prime using either Adhere-It II or CleanAct Rinsable Primer.
 6. Treat all roof penetrations, drains, curbs, and scuppers.
 7. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 8. Apply coating per the chart below:

SEAMS & DETAILS ROOF MATE			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Roof Mate Butter Grade and Fabric	4.0	43
Flashing Grade Only Rates	Roof Mate Butter Grade	2.0	19

EPDM ROOF MATE								
Warranty Term	Coating				Total		Warranty	
	Product (Choose one)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	Roof Mate & QS	1.5	1.5		3.0	26	Yes	No
	Roof Mate HT	1.5	1.5		3.0	25		
	Roof Mate TCM	1.0	1.5		2.5	23		
15 Year	Roof Mate & QS	1.5	1.5	1.0	4.0	34	Yes	No
	Roof Mate HT	1.5	1.5	1.0	4.0	33		
	Roof Mate TCM	1.0	1.5	1.0	3.5	33		

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor. Note: DFT for 3-coursed rates includes 6 mils for the fabric.

ROOF MATE QUICK SPEC

SMOOTH ASPHALTIC (RM-6)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
 - GAF recommends that new asphaltic membranes and repairs age at least 30 days; 90+ days is ideal.
 - Do not apply over gravel surfaced asphaltic substrate.

- Application Instructions**
1. Before applying Roof Mate, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime using UniBase. When Roof Mate Base Coat or Roof Mate MB Plus are used, primer is not required.
 6. Treat all roof penetrations, drains, curbs, and scuppers.
 7. Treat “alligatored” areas or surface cracks.
 8. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 9. Apply coating per the chart below:

SEAMS & DETAILS ROOF MATE			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Roof Mate Butter Grade and Fabric	4.0	43
Flashing Grade Only Rates	Roof Mate Butter Grade	2.0	19

SMOOTH ASPHALTIC ROOF MATE								
Warranty Term	Coating				Total		Warranty	
	Product (Choose one)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	Roof Mate & QS	1.5	1.5		3.0	25	Yes	No
	Roof Mate HT	1.5	1.5		3.0	25		
	Roof Mate MB Plus	1.5	1.5		3.0	26		
15 Year	Roof Mate & QS	1.5	1.5	1.5	4.5	38	Yes	No
	Roof Mate HT	1.5	1.5	1.5	4.5	38		
	Roof Mate MB Plus	1.5	1.5	1.0	4.0	35		

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor. Note: DFT for 3-coursed rates includes 6 mils for the fabric.

ROOF MATE QUICK SPEC

GRANULATED ASPHALTIC (RM-7)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method

Spray, roller, or brush

Requirements

- Moisture survey required.
- Roof must be clean, dry, and tight.
- Adhesion test required to ensure proper adhesion to substrate(s).
- Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
- GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
- GAF recommends that new asphaltic membranes and repairs age at least 30 days; 90+ days is ideal.
- Do not apply over gravel surfaced asphaltic substrate.

Application Instructions

1. Before applying Roof Mate, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
2. Conduct moisture survey and remove/replace all wet areas.
3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
5. Prime using UniBase. When Roof Mate Base Coat or Roof Mate MB Plus are used, primer is not required.
6. Treat all roof penetrations, drains, curbs, and scuppers.
7. Treat “alligatored” areas or surface cracks.
8. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
9. Apply coating per the chart below:

SEAMS & DETAILS ROOF MATE			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Roof Mate Butter Grade and Fabric	4.0	43
Flashing Grade Only Rates	Roof Mate Butter Grade	2.0	19

GRANULATED ASPHALTIC ROOF MATE								
Warranty Term	Coating				Total		Warranty	
	Product (Choose one)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	Roof Mate & QS	1.5	1.5		3.0	25	Yes	No
	Roof Mate HT	1.5	1.5		3.0	25		
	Roof Mate MB Plus	1.5	1.5		3.0	26		
15 Year	Roof Mate & QS	1.5	1.5	1.5	4.5	38	Yes	No
	Roof Mate HT	1.5	1.5	1.5	4.5	38		
	Roof Mate MB Plus	1.5	1.5	1.0	4.0	35		

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor. Note: DFT for 3-coursed rates includes 6 mils for the fabric.

ROOF MATE QUICK SPEC

STRUCTURAL CONCRETE (RM-8)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
 - Concrete must be fully cured (typically takes 28 days).

- Application Instructions**
1. Before applying Roof Mate, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey to ensure concrete contains less than 8% moisture.
 3. Repair or replace damaged or deteriorated sections with like materials, allowing cementitious products to cure properly.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime with Epoxy Primer.
 6. Treat structural joints with backer rod and compatible sealant, then treat with Roof Mate Butter Grade Flashing and Roof Mate Fabric.
 7. Control joints in excess of 1/16” (1.6mm) shall also be caulked with a compatible caulk.
 8. Treat all roof penetrations, drains, curbs, and scuppers.
 9. Apply coating per the chart below:

SEAMS & DETAILS ROOF MATE			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Roof Mate Butter Grade and Fabric	4.0	43
Flashing Grade Only Rates	Roof Mate Butter Grade	2.0	19

STRUCTURAL CONCRETE ROOF MATE								
Warranty Term	Coating				Total		Warranty	
	Product (Choose one)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	Roof Mate & QS	1.5	1.5		3.0	26	Yes	No
	Roof Mate HT	1.5	1.5		3.0	25		
	Roof Mate TCM	1.5	1.5		3.0	28		
15 Year	Roof Mate & QS	1.5	1.5	1.0	4.0	34	Yes	No
	Roof Mate HT	1.5	1.5	1.0	4.0	33		
	Roof Mate TCM	1.5	1.5	1.0	4.0	37		

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor. Note: DFT for 3-coursed rates includes 6 mils for the fabric.

ROOF MATE QUICK SPEC

CORRUGATED STRUCTURAL TRANSITE PANELS (RM-9)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Roof Mate, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair or replace damaged or deteriorated sections with like materials, allowing cementitious products to cure properly.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime with Epoxy Primer.
 6. Treat transite gaps in excess of 1/16” (1.6mm) with a compatible caulk.
 7. Treat all roof penetrations, drains, curbs, and scuppers.
 8. Apply coating per the chart below:

SEAMS & DETAILS ROOF MATE			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Roof Mate Butter Grade and Fabric	4.0	43
Flashing Grade Only Rates	Roof Mate Butter Grade	2.0	19

CORRUGATED STRUCTURAL TRANSITE PANELS ROOF MATE								
Warranty Term	Coating				Total		Warranty	
	Product (Choose one)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	Roof Mate & QS	1.5	1.5		3.0	26	Yes	No
	Roof Mate HT	1.5	1.5		3.0	25		
	Roof Mate TCM	1.5	1.5		3.0	28		
15 Year	Roof Mate & QS	1.5	1.5	1.0	4.0	34	Yes	No
	Roof Mate HT	1.5	1.5	1.0	4.0	33		
	Roof Mate TCM	1.5	1.5	1.0	4.0	37		

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.
Note: DFT for 3-coursed rates includes 6 mils for the fabric.

IMPORTANT NOTE: Corrugated structural transite panels may contain asbestos. Follow all applicable local, state and federal regulations concerning asbestos. Under no circumstances does GAF have any liability for any damages, costs or expenses arising out of or associated with the pre-existing presence of asbestos-containing materials or any other allegedly hazardous substances or materials upon on the roof to which the new GAF roofing materials are being applied.

Unisil & Unisil II Quick Spec Directory

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Quick Specs are abbreviated specifications and are not meant to replace detailed specifications. Complete 3-part CSI System Specifications are available at www.gaf.com.

UNISIL & UNISIL II QUICK SPEC

METAL (UN-1)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application

- Application Instructions**
1. Before applying Unisil or Unisil II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Tighten and/or replace existing fasteners.
 3. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 4. Install crickets to divert water and complete other necessary sheet metal repairs.
 5. Horizontal seams must be 3-coursed with flashing grade and fabric. Overlap and trapezoidal seams must be treated with flashing grade only. Other vertical seams may forgo treatment **IF** the seal/tape is intact on the seam or if they are double locked.
 6. Treat all roof penetrations, skylight curbs and rake edges.
 7. Encapsulate fasteners with Unisil Silicone Flashing.
 8. Apply coating per the chart below:

SEAMS & DETAILS UNISIL & UNISIL II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

METAL UNISIL & UNISIL II							
Warranty Term	Coating			Total		Warranty	
	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.00	1.00		2.00	22	Yes	Yes
15 Year	1.25	1.50		2.75	30	Yes	Yes
20 Year	1.00	1.50	1.00	3.50	38	Yes	Yes

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

UNISIL & UNISIL II QUICK SPEC

PVC (UN-2)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Unisil or Unisil II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime with Unisil Primer.
 6. Treat all roof penetrations, drains, curbs, and scuppers.
 7. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 8. Apply coating per the chart below:

SEAMS & DETAILS UNISIL & UNISIL II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

PVC UNISIL & UNISIL II							
Warranty Term	Coating			Total		Warranty	
	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.00	1.00		2.00	22	Yes	No
15 Year	1.25	1.50		2.75	30	Yes	No
20 Year	1.00	1.50	1.00	3.50	38	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

UNISIL & UNISIL II QUICK SPEC

HYPALON® (UN-3)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Unisil or Unisil II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Treat all roof penetrations, drains, curbs, and scuppers.
 6. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 7. Apply coating per the chart below:

SEAMS & DETAILS UNISIL & UNISIL II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

HYPALON® UNISIL & UNISIL II							
Warranty Term	Coating			Total		Warranty	
	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.00	1.00		2.00	22	Yes	No
15 Year	1.25	1.50		2.75	30	Yes	No
20 Year	1.00	1.50	1.00	3.50	38	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

UNISIL & UNISIL II QUICK SPEC

EPDM (UN-4)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Unisil or Unisil II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime using either Adhere-It II or CleanAct Rinsable Primer.
 6. Treat all roof penetrations, drains, curbs, and scuppers.
 7. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 8. Apply coating per the chart below:

SEAMS & DETAILS UNISIL & UNISIL II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

EPDM UNISIL & UNISIL II							
Warranty Term	Coating			Total		Warranty	
	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.00	1.00		2.00	22	Yes	No
15 Year	1.25	1.50		2.75	30	Yes	No
20 Year	1.00	1.50	1.00	3.50	38	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

UNISIL & UNISIL II QUICK SPEC

SMOOTH ASPHALTIC (UN-5)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
 - GAF recommends that new asphaltic membranes and repairs age at least 30 days; 90+ days is ideal.
 - Do not apply over gravel surfaced asphaltic substrate.

- Application Instructions**
1. Before applying Unisil or Unisil II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime using Unisil Primer.
 6. Treat all roof penetrations, drains, curbs, and scuppers.
 7. Treat all "alligatored" areas or surface cracks.
 8. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 9. Apply coating per the chart below:

SEAMS & DETAILS UNISIL & UNISIL II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

SMOOTH ASPHALTIC UNISIL & UNISIL II							
Warranty Term	Coating			Total		Warranty	
	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.50	1.00		2.50	27	Yes	No
15 Year	1.25	1.00	1.00	3.25	35	Yes	No
20 Year	1.50	1.50	1.00	4.00	44	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

United Coatings™ Liquid-Applied Roofing – Version 1.2

UNISIL & UNISIL II QUICK SPEC

GRANULATED ASPHALTIC (UN-6)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
 - GAF recommends that new asphaltic membranes and repairs age at least 30 days; 90+ days is ideal.
 - Do not apply over gravel surfaced asphaltic substrate.

- Application Instructions**
1. Before applying Unisil or Unisil II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime using Unisil Primer.
 6. Treat all roof penetrations, drains, curbs, and scuppers.
 7. Treat all "alligatored" areas or surface cracks.
 8. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 9. Apply coating per the chart below:

SEAMS & DETAILS UNISIL & UNISIL II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

GRANULATED ASPHALTIC UNISIL & UNISIL II							
Warranty Term	Coating			Total		Warranty	
	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.50	1.00		2.50	27	Yes	No
15 Year	1.25	1.00	1.00	3.25	35	Yes	No
20 Year	1.50	1.50	1.00	4.00	44	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

United Coatings™ Liquid-Applied Roofing – Version 1.2

UNISIL & UNISIL II QUICK SPEC

STRUCTURAL CONCRETE (UN-7)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
 - Concrete must be full cured (typically takes 28 days).

- Application Instructions**
1. Before applying Unisil or Unisil II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair or replace damaged or deteriorated sections with like materials, allowing cementitious products to cure properly.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime using Unisil Primer.
 6. Treat structural joints with backer rod and compatible sealant, then treat with Roof Mate Butter Grade Flashing and Roof Mate Fabric.
 7. Control joints in excess of 1/16” (1.6mm) shall also be caulked with a compatible caulk.
 8. Treat all roof penetrations, drains, curbs, and scuppers.
 9. Apply coating per the chart below:

SEAMS & DETAILS UNISIL & UNISIL II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

STRUCTURAL CONCRETE UNISIL & UNISIL II							
Warranty Term	Coating			Total		Warranty	
	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.50	1.00		2.50	27	Yes	No
15 Year	1.25	1.00	1.00	3.25	35	Yes	No
20 Year	1.50	1.50	1.00	4.00	44	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

UNISIL & UNISIL II QUICK SPEC

CORRUGATED STRUCTURAL TRANSITE PANELS (UN-8)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
 - Concrete must be full cured (typically takes 28 days).

- Application Instructions**
1. Before applying Unisil or Unisil II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair or replace damaged or deteriorated sections with like materials, allowing cementitious products to cure properly.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime using Unisil Primer.
 6. Treat transite gaps in excess of 1/16” (1.6mm) with a compatible caulk.
 7. Treat all roof penetrations, drains, curbs, and scuppers.
 8. Apply coating per the chart below:

SEAMS & DETAILS UNISIL & UNISIL II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

CORRUGATED STRUCTURAL TRANSITE PANELS UNISIL & UNISIL II							
Warranty Term	Coating			Total		Warranty	
	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.50	1.00		2.50	27	Yes	No
15 Year	1.25	1.00	1.00	3.25	35	Yes	No
20 Year	1.50	1.50	1.00	4.00	44	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

IMPORTANT NOTE: Corrugated structural transite panels may contain asbestos. Follow all applicable local, state and federal regulations concerning asbestos. Under no circumstances does GAF have any liability for any damages, costs or expenses arising out of or associated with the pre-existing presence of asbestos-containing materials or any other allegedly hazardous substances or materials upon on the roof to which the new GAF roofing materials are being applied.

UNISIL & UNISIL II QUICK SPEC

SPRAY POLYURETHANE FOAM (UN-9)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Unisil or Unisil II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair or replace damaged or deteriorated sections with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Treat all roof penetrations, drains, curbs, and scuppers.
 6. Apply coating per the chart below:

SEAMS & DETAILS UNISIL & UNISIL II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

SPRAY POLYURETHANE FOAM UNISIL & UNISIL II							
Warranty Term	Coating			Total		Warranty	
	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.50	1.00		2.50	27	Yes	No
15 Year	1.25	1.00	1.00	3.25	35	Yes	No
20 Year	1.50	1.50	1.00	4.00	44	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

UNISIL & UNISIL II QUICK SPEC

AGED TPO (UN-10)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - TPO should be aged at least 90+ days.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Unisil or Unisil II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime using TPO Red Primer OR Unisil Primer.
 6. Treat all roof penetrations, drains, curbs, and scuppers.
 7. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 8. Apply coating per the chart below:

SEAMS & DETAILS UNISIL & UNISIL II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

AGED TPO UNISIL & UNISIL II							
Warranty Term	Coating			Total		Warranty	
	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.00	1.00		2.00	22	Yes	No
15 Year	1.25	1.50		2.75	30	Yes	No
20 Year	1.00	1.50	1.00	3.50	38	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

Unisil HS & Unisil HS II Quick Spec Directory		
Spec Number	Substrate Specification	Page #
UH-1	Unisil HS & Unisil HS II over Metal	54
UH-2	Unisil HS & Unisil HS II over PVC	55
UH-3	Unisil HS & Unisil HS II Hypalon®	56
UH-4	Unisil HS & Unisil HS II over EPDM	57
UH-5	Unisil HS & Unisil HS II Smooth Asphaltic	58
UH-6	Unisil HS & Unisil HS II Granulated Asphaltic	59
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UH-8	Unisil HS & Unisil HS II over Corrugated Structural Transite Panels	61
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Quick Specs are abbreviated specifications and are not meant to replace detailed specifications. Complete 3-part CSI System Specifications are available at www.gaf.com.

UNISIL HS & UNISIL HS II QUICK SPEC METAL (UH-1)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Unisil HS or Unisil HS II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Tighten and/or replace existing fasteners.
 3. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 4. Install crickets to divert water and complete other necessary sheet metal repairs.
 5. Horizontal seams must be 3-coursed with flashing grade and fabric. Overlap and trapezoidal seams must be treated with flashing grade only. Other vertical seams may forgo treatment **IF** the seal/tape is intact on the seam or if they are double locked.
 6. Treat all roof penetrations, skylight curbs and rake edges.
 7. Encapsulate fasteners with Unisil Silicone Flashing.
 8. Apply coating per the chart below:

SEAMS & DETAILS UNISIL HS & UNISIL HS II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

METAL UNISIL HS & UNISIL HS II				
Warranty Term	Total		Warranty	
	Gal/Sq [‡]	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.5	23	Yes	Yes
15 Year	2.0	31	Yes	Yes
20 Year	2.5	38	Yes	Yes

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

‡Coating may be applied at the maximum rate of 2.0 gal/sq per pass, as long as the substrate and slope conditions allow. Maximum slope cannot exceed 2:12.

UNISIL HS & UNISIL HS II QUICK SPEC

PVC (UH-2)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Unisil HS or Unisil HS II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime with Unisil Primer.
 6. Treat all roof penetrations, drains, curbs, and scuppers.
 7. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 8. Apply coating per the chart below:

SEAMS & DETAILS UNISIL HS & UNISIL HS II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

PVC UNISIL HS & UNISIL HS II				
Warranty Term	Total		Warranty	
	Gal/Sq [‡]	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.5	23	Yes	No
15 Year	2.0	31	Yes	No
20 Year	2.5	38	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

[‡]Coating may be applied at the maximum rate of **2.0 gal/sq per pass**, as long as the substrate and slope conditions allow. Maximum slope cannot exceed 2:12.

UNISIL HS & UNISIL HS II QUICK SPEC

HYPALON® (UH-3)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Unisil HS or Unisil HS II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime with Unisil Primer.
 6. Treat all roof penetrations, drains, curbs, and scuppers.
 7. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 8. Apply coating per the chart below:

SEAMS & DETAILS UNISIL HS & UNISIL HS II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

HYPALON® UNISIL HS & UNISIL HS II				
Warranty Term	Total		Warranty	
	Gal/Sq [‡]	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.5	23	Yes	No
15 Year	2.0	31	Yes	No
20 Year	2.5	38	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

[‡]Coating may be applied at the maximum rate of **2.0 gal/sq per pass**, as long as the substrate and slope conditions allow. Maximum slope cannot exceed **2:12**.

UNISIL HS & UNISIL HS II QUICK SPEC

EPDM (UH-4)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Unisil HS or Unisil HS II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Clean and allow the roof to completely dry.
 5. Prime using Adhere-It II **AND** Unisil Primer.
 6. Treat all roof penetrations, drains, curbs, and scuppers.
 7. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 8. Apply coating per the chart below:

SEAMS & DETAILS UNISIL HS & UNISIL HS II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

EPDM UNISIL HS & UNISIL HS II				
Warranty Term	Total		Warranty	
	Gal/Sq [‡]	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.5	23	Yes	No
15 Year	2.0	31	Yes	No
20 Year	2.5	38	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.
 Note: DFT for 3-coursed rates includes 6 mils for the fabric.

‡Coating may be applied at the maximum rate of 2.0 gal/sq per pass, as long as the substrate and slope conditions allow. Maximum slope cannot exceed 2:12.

UNISIL HS & UNISIL HS II QUICK SPEC

SMOOTH ASPHALTIC (UH-5)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
 - GAF recommends that new asphaltic membranes and repairs age at least 30 days; 90+ days is ideal.
 - Do not apply over gravel surfaced asphaltic substrate.

Application Instructions

1. Before applying Unisil HS or Unisil HS II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
2. Conduct moisture survey and remove/replace all wet areas.
3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
5. Prime using Unisil Primer.
6. Treat all roof penetrations, drains, curbs, and scuppers.
7. Treat all "alligatored" areas or surface cracks.
8. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
9. Apply coating per the chart below:

SEAMS & DETAILS UNISIL HS & UNISIL HS II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

SMOOTH ASPHALTIC UNISIL HS & UNISIL HS II				
Warranty Term	Total		Warranty	
	Gal/Sq [‡]	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.75	27	Yes	No
15 Year	2.25	35	Yes	No
20 Year	2.75	42	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

[‡]Coating may be applied at the maximum rate of **2.25 gal/sq per pass**, as long as the substrate and slope conditions allow. Maximum slope cannot exceed 2:12.

UNISIL HS & UNISIL HS II QUICK SPEC

GRANULATED ASPHALTIC (UH-6)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
 - GAF recommends that new asphaltic membranes and repairs age at least 30 days; 90+ days is ideal.
 - Do not apply over gravel surfaced asphaltic substrate.

- Application Instructions**
1. Before applying Unisil HS or Unisil HS II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime using Unisil Primer.
 6. Treat all roof penetrations, drains, curbs, and scuppers.
 7. Treat all "alligatored" areas or surface cracks.
 8. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 9. Apply coating per the chart below:

SEAMS & DETAILS UNISIL HS & UNISIL HS II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

GRANULATED ASPHALTIC UNISIL HS & UNISIL HS II				
Warranty Term	Total		Warranty	
	Gal/Sq [†]	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.75	27	Yes	No
15 Year	2.25	35	Yes	No
20 Year	2.75	42	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

[†]Coating may be applied at the maximum rate of 2.25 gal/sq per pass, as long as the substrate and slope conditions allow. Maximum slope cannot exceed 2:12.

United Coatings™ Liquid-Applied Roofing – Version 1.2

UNISIL HS & UNISIL HS II QUICK SPEC

STRUCTURAL CONCRETE (UH-7)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
 - Concrete must be full cured (typically takes 28 days).

- Application Instructions**
1. Before applying Unisil HS or Unisil HS II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair or replace damaged or deteriorated sections with like materials, allowing cementitious products to cure properly.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime using Unisil Primer.
 6. Treat structural joints with backer rod and compatible sealant, then treat with Unisil Silicone Flashing and Roof Mate Fabric.
 7. Control joints in excess of 1/16” (1.6mm) shall also be caulked with a compatible caulk.
 8. Treat all roof penetrations, drains, curbs, and scuppers.
 9. Apply coating per the chart below:

SEAMS & DETAILS UNISIL HS & UNISIL HS II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

STRUCTURAL CONCRETE UNISIL HS & UNISIL HS II				
Warranty Term	Total		Warranty	
	Gal/Sq [‡]	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.75	27	Yes	No
15 Year	2.25	35	Yes	No
20 Year	2.75	42	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

[‡]Coating may be applied at the maximum rate of **2.25 gal/sq per pass**, as long as the substrate and slope conditions allow. Maximum slope cannot exceed **2:12**.

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UNISIL HS & UNISIL HS II QUICK SPEC

CORRUGATED STRUCTURAL TRANSITE PANELS (UH-8)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
 - Concrete must be full cured (typically takes 28 days).

- Application Instructions**
1. Before applying Unisil HS or Unisil HS II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair or replace damaged or deteriorated sections with like materials, allowing cementitious products to cure properly.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime using Unisil Primer.
 6. Treat transite gaps in excess of 1/16” (1.6mm) with a compatible caulk.
 7. Treat all roof penetrations, drains, curbs, and scuppers.
 8. Apply coating per the chart below:

SEAMS & DETAILS UNISIL HS & UNISIL HS II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

CORRUGATED STRUCTURAL TRANSITE PANELS UNISIL HS & UNISIL HS II				
Warranty Term	Total		Warranty	
	Gal/Sq [‡]	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.75	27	Yes	No
15 Year	2.25	35	Yes	No
20 Year	2.75	42	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.
 Note: DFT for 3-coursed rates includes 6 mils for the fabric.

‡Coating may be applied at the maximum rate of 2.25 gal/sq per pass, as long as the substrate and slope conditions allow. Maximum slope cannot exceed 2:12.

IMPORTANT NOTE: Corrugated structural transite panels may contain asbestos. Follow all applicable local, state and federal regulations concerning asbestos. Under no circumstances does GAF have any liability for any damages, costs or expenses arising out of or associated with the pre-existing presence of asbestos-containing materials or any other allegedly hazardous substances or materials upon the roof to which the new GAF roofing materials are being applied.

UNISIL HS & UNISIL HS II QUICK SPEC

SPRAY POLYURETHANE FOAM (UH-9)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Unisil HS or Unisil HS II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair or replace damaged or deteriorated sections with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Treat all roof penetrations, drains, curbs, and scuppers.
 6. Apply coating per the chart below:

SEAMS & DETAILS UNISIL HS & UNISIL HS II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

SPRAY POLYURETHANE FOAM UNISIL HS & UNISIL HS II				
Warranty Term	Total		Warranty	
	Gal/Sq [‡]	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.75	27	Yes	No
15 Year	2.25	35	Yes	No
20 Year	2.75	42	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

[‡]Coating may be applied at the maximum rate of **2.25 gal/sq per pass**, as long as the substrate and slope conditions allow. Maximum slope cannot exceed 2:12.

UNISIL HS II QUICK SPEC

AGED TPO (UH-10)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Unisil HS II, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime using TPO Red Primer OR Unisil Primer.
 6. Treat all roof penetrations, drains, curbs, and scuppers.
 7. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 8. Apply coating per the chart below:

SEAMS & DETAILS UNISIL HS II			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Unisil Silicone Flashing and Fabric	2.50	44
Flashing Grade Only Rates	Unisil Silicone Flashing	1.25	19

AGED TPO UNISIL HS II				
Warranty Term	Total		Warranty	
	Gal/Sq [‡]	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.5	23	Yes	No
15 Year	2.0	31	Yes	No
20 Year	2.5	38	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

[‡]Coating may be applied at the maximum rate of 2.0 gal/sq per pass, as long as the substrate and slope conditions allow. Maximum slope cannot exceed 2:12.

Elastuff® 101 with Elastuff® 103 Quick Spec Directory

Spec Number	Substrate Specification	Page #
EL-1	Elastuff® over Metal	65
EL-2	Elastuff® over Smooth Asphaltic	66
EL-3	Elastuff® over Granulated Asphaltic	67
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EL-6	Elastuff® over Spray Polyurethane Foam	70

Quick Specs are abbreviated specifications and are not meant to replace detailed specifications. Complete 3-part CSI System Specifications are available at www.gaf.com.

ELASTUFF® 101 WITH ELASTUFF® 103 QUICK SPEC METAL (EL-1)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Elastuff®, an adhesion test is required to ensure an adhesion minimum of 2.0 PLI. Test patches to be applied with rates listed below.
 2. Tighten and/or replace existing fasteners.
 3. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 4. Install crickets to divert water and complete other necessary sheet metal repairs.
 5. Prime rusty areas as needed with Lock-Down Primer.
 6. Horizontal seams must be 3-coursed with flashing grade and fabric. Overlap and trapezoidal seams must be treated with flashing grade only. Other vertical seams may forgo treatment **IF** the seal/tape is intact on the seam or if they are double locked.
 7. Treat all roof penetrations, skylight curbs & rake edges.
 8. Encapsulate fasteners with Unicaps.
 9. Apply coating per the chart below:

SEAMS & DETAILS ELASTUFF® 101/103			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Elastuff® 101 and Fabric	4.0	57
Flashing Grade Only Rates	Elastuff® 101	2.0	26

METAL ELASTUFF® 101/103								
Warranty Term	Elastuff® 101		Elastuff® 103		System		Warranty	
	Base Coat (Gal/Sq)	DFT* (mils)	Top Coat (Gal/Sq)	DFT* (mils)	Total Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.00	13	1.00	9	2.00	22	Yes	Yes
15 Year	1.25	16	1.50	14	2.75	30	Yes	Yes

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

ELASTUFF® 101 WITH ELASTUFF® 103 QUICK SPEC

SMOOTH ASPHALTIC (EL-2)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
 - GAF recommends that new asphaltic membranes and repairs age at least 30 days; 90+ days is ideal.
 - Do not apply over gravel surfaced asphaltic substrate.

- Application Instructions**
1. Before applying Elastuff®, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Treat all roof penetrations, drains, curbs, and scuppers.
 6. Treat “alligatored” areas or surface cracks.
 7. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 8. Apply coating per the chart below:

SEAMS & DETAILS ELASTUFF® 101/103			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Elastuff® 101 and Fabric	4.0	57
Flashing Grade Only Rates	Elastuff® 101	2.0	26

SMOOTH ASPHALTIC ELASTUFF® 101/103									
Warranty Term	Elastuff® 101		Elastuff® 103			System		Warranty	
	Base Coat (Gal/Sq)	DFT* (mils)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	DFT* (mils)	Total Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.50	19	1.50		14	3.00	33	Yes	No
15 Year	1.50	19	1.00	1.25	21	3.75	40	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

ELASTUFF® 101 WITH ELASTUFF® 103 QUICK SPEC

GRANULATED ASPHALTIC (EL-3)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
 - GAF recommends that new asphaltic membranes and repairs age at least 30 days; 90+ days is ideal.
 - Do not apply over gravel surfaced asphaltic substrate.

- Application Instructions**
1. Before applying Elastuff®, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Treat all roof penetrations, drains, curbs, and scuppers.
 6. Treat “alligatored” areas or surface cracks.
 7. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 8. Apply coating per the chart below:

SEAMS & DETAILS ELASTUFF® 101/103			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Elastuff® 101 and Fabric	4.0	57
Flashing Grade Only Rates	Elastuff® 101	2.0	26

GRANULATED ASPHALTIC ELASTUFF® 101/103									
Warranty Term	Elastuff® 101		Elastuff® 103			System		Warranty	
	Base Coat (Gal/Sq)	DFT* (mils)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	DFT* (mils)	Total Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.50	19	1.50		14	3.00	33	Yes	No
15 Year	1.50	19	1.00	1.25	21	3.75	40	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

ELASTUFF® 101 WITH ELASTUFF® 103 QUICK SPEC

STRUCTURAL CONCRETE (EL-4)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
 - Concrete must be fully cured (typically takes 28 days).

- Application Instructions**
1. Before applying Elastuff®, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey to ensure concrete contains less than 8% moisture.
 3. Repair or replace damaged or deteriorated sections with like materials, allowing cementitious products to cure properly.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime with Unitile LV Sealer.
 6. Treat structural joints with backer rod and compatible sealant, then treat with Elastuff® 101 and Roof Mate Fabric.
 7. Control joints in excess of 1/16” (1.6mm) shall also be caulked with a compatible caulk.
 8. Treat all roof penetrations, drains, curbs, and scuppers.
 9. Apply coating per the chart below:

SEAMS & DETAILS ELASTUFF® 101/103			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Elastuff® 101 and Fabric	4.0	57
Flashing Grade Only Rates	Elastuff® 101	2.0	26

STRUCTURAL CONCRETE ELASTUFF® 101/103									
Warranty Term	Elastuff® 101		Elastuff® 103			System		Warranty	
	Base Coat (Gal/Sq)	DFT* (mils)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	DFT* (mils)	Total Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.50	19	1.50		14	3.00	33	Yes	No
15 Year	1.50	19	1.00	1.25	21	3.75	40	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

ELASTUFF® 101 WITH ELASTUFF® 103 QUICK SPEC

CORRUGATED STRUCTURAL TRANSITE PANELS (EL-5)

Elastuff 101 with Elastuff 103 Quick Specs

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Elastuff®, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair or replace damaged or deteriorated sections with like materials, allowing cementitious products to cure properly.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime with Unitile LV Sealer.
 6. Treat transite gaps in excess of 1/16” (1.6mm) with a compatible caulk.
 7. Treat all roof penetrations, drains, curbs, and scuppers.
 8. Apply coating per the chart below:

SEAMS & DETAILS ELASTUFF® 101/103			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Elastuff® 101 and Fabric	4.0	57
Flashing Grade Only Rates	Elastuff® 101	2.0	26

CORRUGATED STRUCTURAL TRANSITE PANELS ELASTUFF® 101/103									
Warranty Term	Elastuff® 101		Elastuff® 103			System		Warranty	
	Base Coat (Gal/Sq)	DFT* (mils)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	DFT* (mils)	Total Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.50	19	1.50		14	3.00	33	Yes	No
15 Year	1.50	19	1.00	1.25	21	3.75	40	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

IMPORTANT NOTE: Corrugated structural transite panels may contain asbestos. Follow all applicable local, state and federal regulations concerning asbestos. Under no circumstances does GAF have any liability for any damages, costs or expenses arising out of or associated with the pre-existing presence of asbestos-containing materials or any other allegedly hazardous substances or materials upon on the roof to which the new GAF roofing materials are being applied.

ELASTUFF® 101 WITH ELASTUFF® 103 QUICK SPEC

SPRAY POLYURETHANE FOAM (EL-6)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Elastuff®, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair or replace damaged or deteriorated sections with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Treat all roof penetrations, drains, curbs, and scuppers.
 6. Apply coating per the chart below:

SEAMS & DETAILS ELASTUFF® 101/103			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Elastuff® 101 and Fabric	4.0	57
Flashing Grade Only Rates	Elastuff® 101	2.0	26

SPRAY POLYURETHANE FOAM ELASTUFF® 101/103									
Warranty Term	Elastuff® 101		Elastuff® 103			System		Warranty	
	Base Coat (Gal/Sq)	DFT* (mils)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	DFT* (mils)	Total Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.50	19	1.50		14	3.00	33	Yes	No
15 Year	1.50	19	1.00	1.25	21	3.75	40	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

Surface Seal SB Quick Spec Directory

Spec Number	Substrate Specification	Page #
SS-1	Surface Seal SB over Metal	72
SS-2	Surface Seal SB over EPDM	73
SS-3	Surface Seal SB over Smooth Asphaltic	74
SS-4	Surface Seal SB over Granulated Asphaltic	75
SS-5	Surface Seal SB over Structural Concrete	76

Quick Specs are abbreviated specifications and are not meant to replace detailed specifications. Complete 3-part CSI System Specifications are available at www.gaf.com.

SURFACE SEAL SB QUICK SPEC

METAL (SS-1)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Surface Seal SB, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Tighten and/or replace existing fasteners.
 3. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 4. Install crickets to divert water and complete other necessary sheet metal repairs.
 5. Prime rusty areas as needed with Lock-Down Primer.
 6. Horizontal seams must be 3-coursed with flashing grade and fabric. Overlap and trapezoidal seams must be treated with flashing grade only. Other vertical seams may forgo treatment **IF** the seal/tape is intact on the seam or if they are double locked.
 7. Treat all roof penetrations, skylight curbs and rake edges.
 8. Encapsulate fasteners with FlexSeal.
 9. Apply coating per the chart below:

SEAMS & DETAILS SURFACE SEAL SB			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	FlexSeal and Fabric	4.0	48
Flashing Grade Only Rates	FlexSeal Flashing	2.0	21

METAL SURFACE SEAL SB							
Warranty Term	Coating			Total		Warranty	
	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.0	1.5		2.5	20	Yes	Yes
15 Year	1.0	1.5	1.0	3.5	28	Yes	Yes
20 Year	1.5	1.5	1.5	4.5	36	Yes	Yes

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

Quick Specs
Surface Seal SB

SURFACE SEAL SB QUICK SPEC

EPDM (SS-2)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Surface Seal SB, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Clean and allow the roof to completely dry.
 5. Prime using Adhere-It II.
 6. Treat all roof penetrations, drains, curbs, and scuppers.
 7. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 8. Apply coating per the chart below:

SEAMS & DETAILS SURFACE SEAL SB			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	FlexSeal and Fabric	4.0	48
Flashing Grade Only Rates	FlexSeal Flashing	2.0	21

EPDM SURFACE SEAL SB							
Warranty Term	Coating			Total		Warranty	
	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.25	1.50		2.75	22	Yes	No
15 Year	1.25	1.50	1.00	3.75	30	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

SURFACE SEAL SB QUICK SPEC

SMOOTH ASPHALTIC (SS-3)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
 - GAF recommends that new asphaltic membranes and repairs age at least 30 days; 90+ days is ideal.
 - Do not apply over gravel surfaced asphaltic substrate.

Application Instructions

1. Before applying Surface Seal SB, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
2. Conduct moisture survey and remove/replace all wet areas.
3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
5. Prime with Unisil Primer.
6. Treat all roof penetrations, drains, curbs, and scuppers.
7. Treat “alligatored” areas or surface cracks.
8. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
9. Apply coating per the chart below:

SEAMS & DETAILS SURFACE SEAL SB			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	FlexSeal and Fabric	4.0	48
Flashing Grade Only Rates	FlexSeal Flashing	2.0	21

SMOOTH ASPHALTIC SURFACE SEAL SB							
Warranty Term	Coating			Total		Warranty	
	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.5	1.5		3.0	24	Yes	No
15 Year	1.5	1.5	1.0	4.0	32	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

SURFACE SEAL SB QUICK SPEC

GRANULATED ASPHALTIC (SS-4)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
 - GAF recommends that new asphaltic membranes and repairs age at least 30 days; 90+ days is ideal.
 - Do not apply over gravel surfaced asphaltic substrate.

- Application Instructions**
1. Before applying Surface Seal SB, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime with Unisil Primer.
 6. Treat all roof penetrations, drains, curbs, and scuppers.
 7. Treat “alligatored” areas or surface cracks.
 8. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 9. Apply coating per the chart below:

SEAMS & DETAILS SURFACE SEAL SB			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	FlexSeal and Fabric	4.0	48
Flashing Grade Only Rates	FlexSeal Flashing	2.0	21

GRANULATED ASPHALTIC SURFACE SEAL SB							
Warranty Term	Coating			Total		Warranty	
	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.5	1.5		3.0	24	Yes	No
15 Year	1.5	1.5	1.0	4.0	32	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

SURFACE SEAL SB QUICK SPEC

Structural Concrete (SS-5)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 40°F (5°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
 - Concrete must be fully cured (typically takes 28 days).

- Application Instructions**
1. Before applying Surface Seal SB, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey to ensure concrete contains less than 8% moisture.
 3. Repair or replace damaged or deteriorated sections with like materials, allowing cementitious products to cure properly.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime with Unitile LV Sealer.
 6. Treat structural joints with backer rod and compatible sealant, then treat with FlexSeal and Roof Mate Fabric.
 7. Control joints in excess of 1/16” (1.6mm) shall also be caulked with a compatible caulk.
 8. Treat all roof penetrations, drains, curbs, and scuppers.
 9. Apply coating per the chart below:

SEAMS & DETAILS SURFACE SEAL SB			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	FlexSeal and Fabric	4.0	48
Flashing Grade Only Rates	FlexSeal Flashing	2.0	21

STRUCTURAL CONCRETE SURFACE SEAL SB							
Warranty Term	Coating			Total		Warranty	
	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	1.5	1.5		3.0	24	Yes	No
15 Year	1.5	1.5	1.0	4.0	32	Yes	No

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

Diathon® Quick Spec Directory

Spec Number	Substrate Specification	Page #
DT-1	Diathon® over Spray Polyurethane Foam	77

Quick Specs are abbreviated specifications and are not meant to replace detailed specifications. Complete 3-part CSI System Specifications are available at www.gaf.com.

DIATHON® QUICK SPEC

Spray Polyurethane Foam (DT-1)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Diathon®, an adhesion test is required to ensure an adhesion minimum of 2.0 PLI. Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. For recoat applications: Treat all splits, roof penetrations, drains, and curbs.
 6. Apply coating per the chart below:

SEAMS & DETAILS ROOF MATE			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Roof Mate Butter Grade and Fabric	4.0	43

SPRAY POLYURETHANE FOAM DIATHON®										
	Base coat		Coating				Total		Warranty	
	Product	Base (Gal/Sq)	Product (Choose one)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	(Gal/Sq)	DFT* (mils)	Emerald Pledge	Diamond Pledge
10 Year	Diathon® Base	1.5	Diathon® Diathon® QS	1.5	1.0		4.0	34	Yes	No
			Diathon® HT	1.5	1.0		4.0	33		
15 Year	Diathon® Base	1.5	Diathon® Diathon® QS	1.5	1.0	1.0	5.0	43	Yes	No
			Diathon® HT	1.5	1.0	1.0	5.0	42		
20 Year	Diathon® Base	1.5	Diathon® Diathon® QS	1.5	1.5	1.5	6.0	51	Yes	No
			Diathon® HT	1.5	1.5	1.5	6.0	50		

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

Kymax + United Coatings™ Quick Spec Directory

Spec Number	Substrate Specification	Page #
KM-1	Roof Mate and Kymax over Metal	80
KM-2	Roof Mate and Kymax over Single-Ply	81
KM-3	Roof Mate and Kymax over Smooth & Granulated Asphaltic	82
KM-4	Roof Mate and Kymax over Structural Concrete & Corrugated Structural Transite Panels	83
KM-5	Kymax Logo Work	84
KM-6	Kymax Metal Restoration	85

Quick Specs are abbreviated specifications and are not meant to replace detailed specifications. Complete 3-part CSI System Specifications are available at www.gaf.com.

ROOF MATE + KYMAX QUICK SPEC

METAL (KM-1)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Roof Mate and Kymax, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Tighten and/or replace existing fasteners.
 3. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 4. Install crickets to divert water and complete other necessary sheet metal repairs.
 5. Prime rusty areas with Acrylex 400 Primer or StableRust Rust-Inhibiting Primer. For severe rust, prime area with Lock-Down Primer.
 6. Horizontal seams must be 3-coursed with flashing grade and fabric. Overlap and trapezoidal vertical seams must be treated with flashing grade only. Other vertical seams may forgo treatment **IF** the seal/tape is intact on the seam or if they are double locked.
 7. Treat all roof penetrations, skylight curbs and rake edges.
 8. Encapsulate fasteners with Roof Mate Butter Grade.
 9. Apply coating per the chart below:

SEAMS & DETAILS ROOF MATE + KYMAX			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Roof Mate Butter Grade and Fabric	4.0	43
Flashing Grade Only Rates	Roof Mate Butter Grade	2.0	19

METAL ROOF MATE + KYMAX

Warranty Term	Roof Mate						Kymax				System		Warranty	
	Product (Choose one)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	3rd Coat (Gal/Sq)	Total (Gal/Sq)	DFT* (mils)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	Total (Gal/Sq)	DFT* (mils)	Total Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
15 Year ⁺	Roof Mate & QS	1.00	1.50		2.50	21	0.40	0.40	0.80	4.5	3.30	25.5	Yes	Yes
	Roof Mate HT	1.00	1.50		2.50	21					3.30	25.5		
	Roof Mate TCM	1.00	1.00		2.00	19					2.80	23.5		
20 Year ⁺	Roof Mate & QS	1.00	1.50	1.00	3.50	30	0.40	0.40	0.80	4.5	4.30	34.5	Yes	Yes
	Roof Mate HT	1.00	1.50	1.00	3.50	29					4.30	33.5		
	Roof Mate TCM	1.50	1.75		3.25	30					4.05	34.5		

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

⁺Eligible for 10 Year Extended Limited Warranty (color).

ROOF MATE + KYMAX QUICK SPEC

SINGLE-PLY (KM-2)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Approved non-metal substrates: PVC, Hypalon®, EPDM, and TPO.
 - Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Roof Mate and Kymax, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime using the following primers:
 - PVC:** Unisil Primer
 - Hypalon®:** No primer required
 - EPDM:** Adhere-It® II or CleanAct Primer
 - TPO:** TPO Red Primer
 6. Treat all roof penetrations, drains, curbs, and scuppers.
 7. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
 8. Apply coating per the chart below:

SEAMS & DETAILS ROOF MATE			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Roof Mate Butter Grade and Fabric	4.0	43
Flashing Grade Only Rates	Roof Mate Butter Grade	2.0	19

SINGLE-PLY ROOF MATE + KYMAX													
Warranty Term	Roof Mate					Kymax				System		Warranty	
	Product (Choose one)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	Total (Gal/Sq)	DFT* (mils)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	Total (Gal/Sq)	DFT* (mils)	Total Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
15 Year ⁺	Roof Mate & QS	1.5	1.5	3.0	25	0.40	0.40	0.80	4.5	3.8	29.5	Yes	No
	Roof Mate HT	1.5	1.5	3.0	25					3.8	29.5		
	Roof Mate TCM	1.0	1.5	2.5	23					3.3	27.5		

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

⁺Eligible for 10 Year Extended Limited Warranty (color).

ROOF MATE + KYMAX QUICK SPEC

SMOOTH & GRANULATED ASPHALTIC (KM-3)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
 - GAF recommends that new asphaltic membranes and repairs age at least 30 days; 90+ days is ideal.
 - Do not apply over gravel surfaced asphaltic substrate.

Application Instructions

1. Before applying Roof Mate and Kymax, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
2. Conduct moisture survey and remove/replace all wet areas.
3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
5. Prime using UniBase. When Roof Mate Base Coat or Roof Mate MB Plus are used, primer is not required.
6. Treat all roof penetrations, drains, curbs, and scuppers.
7. Treat “alligatored” areas or surface cracks.
8. All loose seams must be 3-coursed with flashing grade and fabric. All other seams must be treated with flashing grade only, no fabric required.
9. Apply coating per the chart below:

SEAMS & DETAILS ROOF MATE			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Roof Mate Butter Grade and Fabric	4.0	43
Flashing Grade Only Rates	Roof Mate Butter Grade	2.0	19

SMOOTH & GRANULATED ASPHALTIC ROOF MATE + KYMAX													
Warranty Term	Roof Mate					Kymax				System		Warranty	
	Product (Choose one)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	Total (Gal/Sq)	DFT* (mils)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	Total (Gal/Sq)	DFT* (mils)	Total Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
15 Year [†]	Roof Mate & QS	1.5	1.5	3.0	25	0.40	0.40	0.80	4.5	3.8	29.5	Yes	No
	Roof Mate HT	1.5	1.5	3.0	25					3.8	29.5		
	Roof Mate MB Plus	1.5	1.5	3.0	26					3.8	30.5		

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

[†]Eligible for 10 Year Extended Limited Warranty (color).

ROOF MATE + KYMAX QUICK SPEC

STRUCTURAL CONCRETE & CORRUGATED STRUCTURAL TRANSITE PANELS (KM-4)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.
 - Concrete must be fully cured (typically takes 28 days).

- Application Instructions**
1. Before applying Roof Mate, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey to ensure concrete contains less than 8% moisture.
 3. Repair or replace damaged or deteriorated sections with like materials, allowing cementitious products to cure properly.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime with Epoxy Primer.
 6. Treat structural joints with backer rod and compatible sealant, then treat with Roof Mate Butter Grade Flashing and Roof Mate Fabric.
 7. Control joints and transite gaps in excess of 1/16” (1.6mm) shall also be caulked with a compatible caulk.
 8. Treat all roof penetrations, drains, curbs, and scuppers.
 9. Apply coating per the chart below:

SEAMS & DETAILS ROOF MATE			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Roof Mate Butter Grade and Fabric	4.0	43
Flashing Grade Only Rates	Roof Mate Butter Grade	2.0	19

STRUCTURAL CONCRETE & CORRUGATED STRUCTURAL TRANSITE PANELS ROOF MATE + KYMAX													
Warranty Term	Roof Mate					Kymax				System		Warranty	
	Product (Choose one)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	Total (Gal/Sq)	DFT* (mils)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	Total (Gal/Sq)	DFT* (mils)	Total Gal/Sq	DFT* (mils)	Emerald Pledge	Diamond Pledge
15 Year ⁺	Roof Mate & QS	1.5	1.5	3.0	25	0.40	0.40	0.80	4.5	3.8	29.5	Yes	No
	Roof Mate HT	1.5	1.5	3.0	25					3.8	29.5		
	Roof Mate MB Plus	1.5	1.5	3.0	26					3.8	30.5		
	Roof Mate TCM	1.5	1.5	3.0	29					3.8	33.5		

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Note: DFT for 3-coursed rates includes 6 mils for the fabric.

⁺Eligible for 10 Year Extended Limited Warranty (color).

ROOF MATE + KYMAX QUICK SPEC

LOGO WORK (KM-5)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Approved substrates: metal, smooth and granulated asphaltic membranes, TPO, PVC, Hypalon®, EPDM, structural concrete, and corrugated structural transite panels.
 - Moisture survey required.
 - Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during

- Application Instructions**
1. Before applying Roof Mate and Kymax, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Conduct moisture survey and remove/replace all wet areas.
 3. Repair membrane including seams, penetrations, flashings, curbs, and terminations with like materials.
 4. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 5. Prime using the following primers:
 - Metal:**
 - Rusty metal:* Acrylex 400
 - Severe rusty metal:* Lock-Down Primer
 - Kynar-coated metal:* XR-2000
 - Smooth & granulated asphaltic:** Unibase. (Primer not required when Roof Mate Base Coat or Roof Mate MB Plus is used.)
 - TPO:** TPO Red Primer
 - PVC:** Unisil Primer
 - Hypalon®:** No primer required
 - EPDM:** Adhere-It® II or Clean Act Primer
 - Structural concrete:** Epoxy Primer
 - Corrugated structural transite panels:** Epoxy Primer
 6. Treat all roof penetrations, drains, curbs, and scuppers.
 7. All loose seams must be 3-coursed with flashing grade and fabric. All other seams may be coated with flashing grade only for additional protection.
 8. Apply coating per the chart below:

SEAMS & DETAILS ROOF MATE			
Treatment Type	Product	Total (Gal/Sq)	DFT* (mils)
3-Coursed Rates	Roof Mate Butter Grade and Fabric	4.0	43
Flashing Grade Only Rates	Roof Mate Butter Grade	2.0	19

LOGO WORK ROOF MATE + KYMAX								
Warranty Term	Roof Mate		Kymax				System	
	Total (Gal/Sq)	DFT* (mils)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	Total (Gal/Sq)	DFT* (mils)	Total Gal/Sq	DFT* (mils)
10 Year Extended Limited	1.5	13	0.40	0.40	0.80	4.5	2.3	17.5

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.
Note: DFT for 3-coursed rates includes 6 mils for the fabric.

KYMAX QUICK SPEC

METAL RESTORATION (KM-6)

NOTE: The following “Quick Spec” is an abbreviated specification and is not meant to replace the detailed specification. Read the entire 3-Part CSI System Specification prior to starting the project. Non-job specific 3-Part CSI System Specifications are available at www.gaf.com.

Method Spray, roller, or brush

- Requirements**
- Roof must be clean, dry, and tight.
 - Adhesion test required to ensure proper adhesion to substrate(s).
 - Apply at 50°F (10°C) and rising with no rain, dew, fog or freezing temperatures in forecast for 24 hours.
 - GAF recommends that the surface temperature be at or less than 110°F (43°C) during application.

- Application Instructions**
1. Before applying Kymax, an adhesion test is required to ensure an adhesion minimum of 2.0 pounds per linear inch (PLI). Test patches to be applied with rates listed below.
 2. Tighten and/or replace existing fasteners.
 3. Power wash roof to ensure it is free of dirt, debris, oil, and other contaminants that could negatively affect adhesion. United Cleaning Concentrate (UCC) is recommended to clean the roof. Allow roof to completely dry.
 4. Prime using Acrylex 400.
 5. Install crickets to divert water and complete other necessary sheet metal repairs.
 6. Apply coating per the chart below:

METAL RESTORATION KYMAX					
Warranty Term	Acrylex 400	Kymax			
	Total (Gal/Sq)	1st Coat (Gal/Sq)	2nd Coat (Gal/Sq)	Total (Gal/Sq)	DFT* (mils)
10 Year Extended Limited	0.5	0.40	0.40	0.80	4.5

* Dry Film Thickness (DFT) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

Section 4

Care & Preventative Maintenance

OVERVIEW

Due to its constant exposure to heat, cold, ultraviolet radiation, rain, snow, hail, high winds and/or mechanical damage, a roof can be the most vulnerable component of a building's exterior. Despite these negative effects, long-term performance can be enhanced, and major roof problems avoided, through correct design, quality materials, proper installation procedures and workmanship, and a comprehensive roof maintenance program. The cost of a comprehensive maintenance program is minimal compared to the cost of repairing and/or removing and replacing a damaged roofing system.

The roofing system is a critical asset in the overall building envelope, and should be treated as such. Identifying and correcting potential problems early is paramount to ensuring that small problems do not become major issues. It is also essential in maintaining the integrity of the roof, protecting the building's contents, and avoiding interruption of the building's intended function. A thorough and consistent maintenance schedule will not only extend the life of the roofing system and lower life cycle and replacement costs, but will help protect other building components as well.

UNDERSTANDING THE IMPORTANCE OF PROPER ROOF MAINTENANCE AND REPAIR

Like all roofing systems, roofs that have been coated require regular maintenance and repair to enhance long-term service life. The Roof Coatings Manufacturers Association (RCMA) recommends that roofs and coatings be inspected twice each year, generally in the spring and fall, and after any major storms or high speed wind events. Additional coating should be applied as necessary to repair damage to the coating or underlying roofing substrate. Additional coating can also be applied where the existing coating has worn away. Refer to the specific sections of this manual for more information on coating and re-coating applications.

GENERAL CARE & PREVENTATIVE MAINTENANCE

The following is a list of general care and maintenance recommendations that will help achieve maximum performance from the roofing system.

- Provide proper drainage to minimize standing water on the roof. Keep the roof surface clean from leaves, pine needles, twigs, paper, accumulated dirt and other debris, which may accumulate and result in clogged drains. Cut back trees or branches growing too close to the roof. Ponding of water on the surface of the roofing system will increase the probability of moisture entering the structure in the event of a puncture or other mechanical damage to the roofing membrane.
- Check the building exterior for settlement or movement. Cracks in the walls are a warning of possible cracks in the roof substrate and flashing. Ensure that overhangs, cornices, fascia, and edging are in good condition.
- Avoid damaging the roofing system by exposing it to any of the following, which could cause premature degradation of the coating or membrane:
 - Liquids containing petroleum products
 - Solvents
 - Grease used for lubricating rooftop units or from restaurant vents
 - Oils (new or old) used for air conditioning or compressor units
 - Kitchen waste or other animal fats
 - Chemicals

- The use of catch pans (including proper drainage of these pans or other means of protection) may be used to protect the roofing membrane from exposure to grease, chemicals, and other materials that would otherwise be expelled onto the roof surface. Prolonged exposure to these materials can cause swelling and possible degradation of the roofing system if spills are not removed in a timely manner.
- Check for signs of algae, mold, mildew or other plant growth on the roof, particularly in shaded areas that hold water.
- Unprotected areas of the roofing system are more susceptible to damage from heavy foot traffic and additional measures must be taken to avoid damage to the system. See options below and/or contact GAF for recommendations where heavy foot traffic is expected.
- If snow removal is necessary, use plastic shovels and be careful when working around protrusions or other areas where detail work could be damaged. Snow blowers, picks, axes and shovels with sharp edges must not be used on the roof.
- Remove foreign debris, such as glass, bolts, nails, screws, metal shavings, and any other materials that may cause punctures or cuts to the liquid-applied coating or roofing system.
- Limit roof access. Most roof damage is caused by individuals that are not authorized to access the roof, or by individuals that are not aware of the damage that can be caused when proper precautionary procedures are not followed. Roof access should be strictly limited to authorized personnel and outside personnel should be informed as to the precautions necessary when accessing the roof. Make a log of all visitors and maintenance personnel accessing the roof.
- Make sure that maintenance personnel are warned against dropping tools and equipment on the coated roof surface in order to avoid puncturing the membrane. When servicing the rooftop HVAC units, antennas, solar panels, satellite dishes, etc., care should be taken when placing tools, metal doors, lids, pans, or sharp objects on the coating system surface. When moving roof-mounted units or equipment over coated roofs, avoid damage by placing smooth plywood over the coating membrane prior to moving any equipment.
- Repair of any damage caused by misuse of the roofing system is the responsibility of the Building Owner. The Building Owner is also responsible for ensuring that any such damage is properly repaired by either the original contractor of record or another GAF-certified contractor. If timely repairs are not made to rectify mechanical damage or other misuse of the roofing system, this can result in the need for major repairs or replacement of the roof or roof coating system at the Building Owner's sole expense.

SEMI-ANNUAL INSPECTIONS

When conducting a semi-annual inspection, the liquid-applied coating may be slippery when wet. Exercise caution when walking on the liquid-applied coating system or coating during or after a rain shower, or if moisture is present in the form of dew, frost or ice. Pay attention while walking on light-colored surfaces as ice or frost build-up may not be as visible as on a dark surface.

Semi-Annual Inspections...

Consist of a cleaning and visual examination of the roof coating system. The inspection should include the overall coating condition as well as the integrity of flashings, vent pipes and other protrusions, skylights, drains, gutters, parapet walls and caps, adjacent walls, and mechanical equipment. Also check for evidence of any biological growth or other foreign debris.

Preventative Maintenance Program...

Consists of regularly scheduled inspections and subsequent corrective actions, intended to maximize the life expectancy of the roofing system. It is recommended that preventative maintenance semi-annual inspections be scheduled in the spring and fall.

Additional Inspections

In addition to the scheduled semi-annual inspection, additional inspections should be scheduled if the roof is exposed to abusive or unusual conditions including but not limited to those listed below. Maintenance programs that include semi-annual inspections can usually be arranged through the installing contractor or another GAF-certified contractor. They can also be performed by a registered roof consultant or other qualified personnel who have been properly trained in liquid-applied coating systems and safety. These inspections should be attended by the Building Owner and/or in-house maintenance personnel responsible for the roof. Additional roof inspections should be conducted whenever any of the following conditions occur:

1. Exposure of the roof to severe weather, such as strong winds, hail or continuous heavy rainfall.
 - Examine the roof for severely ponded areas, accumulated debris, and any damage to the building components that may allow moisture to infiltrate the roofing membrane. The coating or liquid-applied system should also be examined in areas where severe conditions may have caused punctures, tears, abrasions or loose coating.
2. After repair or replacement of rooftop equipment, or at any other time when the roof may be exposed to activities from other trades where damage may occur.
 - Examine the roof for spills, debris, sharp objects, punctures, excessive wear, or other damage caused by heavy traffic or modifications to the roof.

Cleaning Procedures

WARNING: The liquid-applied coating may be slippery when wet. Exercise caution when walking on the liquid-applied coating system during cleaning.

1. Remove any build-up of rocks, branches, leaves, pine needles and other foreign debris, as well as excessive dirt build-up around drains and other low areas. Use a plastic rake, medium-bristle push brush or other appropriate method for removing this accumulated debris from the roof, using the least amount of pressure possible. Remove any excessive build-up or blockage from drains, gutters and downspouts. Ensure that downspouts on multi-level roofs do not dump directly onto the coated roof surface below. Trim any overhanging trees to prevent excessive leaf and pine needle accumulation, allowing as much sunlight to the roof as possible to help eliminate mildew and algae growth.

2. Liberally apply GAF United Cleaning Concentrate, diluted at a ratio of 1 part concentrate to 10 parts water, under low pressure to a given section of the roof at the rate of 0.4 to 0.7 gallons per 100 ft² (1.6 to 2.9 L/m²). Allow the cleaner to sit for a minimum of 15 minutes.
3. Make sure that areas where algae, mold, or mildew growth has occurred are thoroughly saturated. These areas should also receive additional scrubbing with a medium to stiff bristle brush to assure the most complete removal possible.
4. Pressure rinse toward the drains using clean water and a 1,200 to 1,500 psi pressure washer. Use a fan tip on the extension wand, held no closer than 12" (305 mm) from the coated roof surface. Low areas where the dirt has accumulated may require additional agitation using a broom or cleaning pad.

IMPORTANT: Roof wash-off catchment systems should be in place when required. Be sure to follow state and local requirements for roof-wash off catchments during the cleaning process.

INSPECTION CHECKLIST

Pre-Inspection

Prior to the actual roof inspection, a detailed roof plan should be prepared, on which any defects and notes can be recorded.

Prior to going onto the roof itself, inspect the underside of the deck (if accessible), as well as the outside of the building. Note any signs of excessive moisture, staining, or deterioration. These observations can give clues to not only problems with the roof, but also other conditions affecting the performance of the building envelope.

GAF Inspection Checklist		
Area of Concern	Treatment	✓
Roof Membrane & Flashings	<ul style="list-style-type: none"> Ensure that the overall roof coating membrane is sound and free of mechanical damage, splits, crazing, and cracking. In areas prone to standing water, inspect the coating surface for signs of blisters, delamination, or degradation caused by biological growth. 	
Roof Drains & Scuppers	<ul style="list-style-type: none"> Ensure that roof drains and scuppers are clear and free of all debris to allow for proper drainage. Check drain covers to verify that they are tight and properly fastened. Ensure that the coating around drains and scuppers is sound and free of blisters, tears, and delaminations. 	
Gutters	<ul style="list-style-type: none"> Ensure that gutters are clean and free of any debris that will inhibit proper drainage. If drains are coated, inspect coating to ensure that it is sound and free of blisters, tears and delaminations. 	
Parapet Walls & Caps	<ul style="list-style-type: none"> Inspect interface between roof deck and parapet walls to ensure that there are no splits or tears, and that the coating membrane is fully-adhered and sound. Examine parapet walls and caps to ensure that there are no cracks or breaks in the substrate or membrane that will allow moisture to enter beneath the coating system. 	
Protrusions	<ul style="list-style-type: none"> Inspect the reinforced coating around all protrusions, such as vent pipes, for any signs of splits, tears or delaminations around the base. Ensure that vent pipes have the proper caps installed. Inspect coating to ensure that it is still self-flashing and secure around the top of all protrusions. 	
Roof Mounted Equipment	<ul style="list-style-type: none"> All rooftop equipment should be inspected to ensure that it is well-secured to the base risers, and that the coating and reinforcement around the base is sound and free of blisters, tears and delaminations. 	
Skylights	<ul style="list-style-type: none"> Check the reinforcement around all skylights to ensure that it is sound and free of blisters, tears and delaminations. 	
Other Details	<ul style="list-style-type: none"> Check the bricks and mortar on chimneys, as well as caulking or joints in metal flashings such as copings, counter-flashings, rooftop units, curbs, caps, expansion joints, etc. Repair or replace caulking as necessary. 	
Moisture Analysis (optional)	<ul style="list-style-type: none"> If damage has caused concern with moisture penetration into the roof substrate, a non-destructive moisture detection survey can be conducted to provide an accurate analysis. Two common methods are nuclear metering and infrared thermography. A moisture meter probe can also be inserted through the coating; however, this is a destructive method and will require the damage be repaired. 	
Minor Repairs	<ul style="list-style-type: none"> Areas found to need minor repairs (e.g., small punctures and tears) during the inspection may be repaired with Roof Mate Butter Grade. More extensive repairs may be treated with Roof Mate Butter Grade product with fabric. For project-specific recommendations, please contact GAF's Technical Services. 	

ROOF SPECIFIC LEAK INVESTIGATION

On metal decks, it is important to identify the direction of the deck flutes and deck slope. Moisture may infiltrate through the roofing system, migrate in the lower flutes of the deck, and leak inside the building in low areas.

On concrete decks or on projects where the existing roofing material is left in place, leaks may result from moisture entrapment in the original installation.

On poorly insulated roofing assemblies, leaks may occur as the result of condensation. It is therefore important to determine the leak location and frequency. Sources of air leakage should be sealed if possible.

1. Begin leak investigations by conducting a thorough visual inspection of the general location on the roof where leaks have been detected inside the building.
2. Inspect detail areas such as drains, vents, scuppers, HVAC and other roof-mounted equipment, parapets, ponded water areas, etc. If the roof is dry at the time of investigation, areas where water ponds can be identified by evidence of accumulated residue on roof membrane.
3. Examine lower areas of the roof for moisture beneath the roof coating system (soft insulation can be detected when walking over the roof).
4. Check areas around mechanical rooftop equipment, drains, skylights, roof hatches, expansion joints, pipes, vents, etc. to identify cuts or punctures in the coating membrane.
5. Examine the condition of metal flashings (i.e., edging, coping, expansion joint covers, parapet caps, etc.) for cracks and improperly sealed joints.
6. When a visible source of the leak has not been identified, wet the system at the anticipated leak area with water and examine the interior area for leaks.
7. Often, an inspection of the underside of the deck will reveal signs of water leakage and/or air infiltration.

EMERGENCY REPAIRS

GAF must be notified of any leaks within 30 days of discovery of a leak or GAF will have no responsibility for making repairs or replacing that portion of the products that leak as a result of a manufacturing defect. The Building Owner may make temporary repairs to minimize damage to the building or its contents in an emergency. Only qualified workers should perform temporary repairs. These repairs will not result in cancellation of the applicable guarantee or warranty as long as they are reasonable and customary and do not result in permanent damage to the GAF roofing materials. When weather conditions permit, permanent repairs should be completed by an approved GAF contractor at GAF's direction if it is a covered leak or at the building owner's direction for non-covered leaks.

Repairs should not be made with asphalt-based products unless a wet patch type product is needed for emergency purposes. If wet patch products are used they must be completely removed at the time permanent repairs are made.

Temporary Dry Surface Emergency Repairs

- Clean the coating surface around the damaged area using United Cleaning Concentrate (UCC).
- Rinse the area with clean water and allow it to dry.
- Apply Roof Mate Butter Grade and embed Roof Mate Fabric as needed to provide additional strength. Contact GAF Technical Services before any other product is used to confirm its suitability.

Specific Repairs to Liquid-Applied Coating Systems over Spray Polyurethane Foam (SPF) Insulation

- Minor breaks in the coating or mechanical damage to sprayed polyurethane foam (SPF) may be repaired with approved urethane caulk and then top-coated with Roof Mate Butter Grade and fabric. The damaged foam must be completely cut away prior to repairing. If the repaired area is larger than 2" (51 mm) in diameter, consult GAF Technical Services for proper repair procedures. **Note:** If silicone is used for repair, the area must be filled with Unisil with Unisil Fibers.
- Large blisters that are not leaking but have broken open should be removed and repaired. If the blister has not broken open, GAF recommends leaving it in place.

Specific Repairs to Liquid-Applied Coating Systems Not Over Spray Polyurethane Foam (SPF) Insulation

- Repair minor mechanical damage to the liquid-applied coating membrane with specified flashing grade and/or approved urethane caulk, and then top-coat with an approved GAF product. The damaged membrane must be completely cut away prior to repairing. If the repaired area is larger than 2" (51 mm) in diameter, consult GAF Technical Services for proper repair procedures.
- If the liquid-applied coating system incorporates reinforcement fabric, then the repair should use specified flashing grade product and fabric.

ROOF ALTERATIONS

General

GAF must be notified of any planned roof alterations prior to such alterations being made. Coverage under the guarantee or warranty may be jeopardized if:

- GAF is not notified of alterations.
- The original contractor of record (or another GAF-certified contractor) does not do the required work.
- Non-GAF products are used.

All alterations must be pre-approved, including but not limited to modifications such as roof-top HVAC units or other equipment, pipes, satellite dishes, antennas, conduit, general penetrations, skylights, etc.

NOTE: These maintenance and inspection procedures are provided for guideline use only. An approved GAF-certified contractor or professional roof consultant may provide a more detailed maintenance program. Maintain records of roof damage and maintenance inspections for each building roof.

Section 5

Architectural Detail Drawings

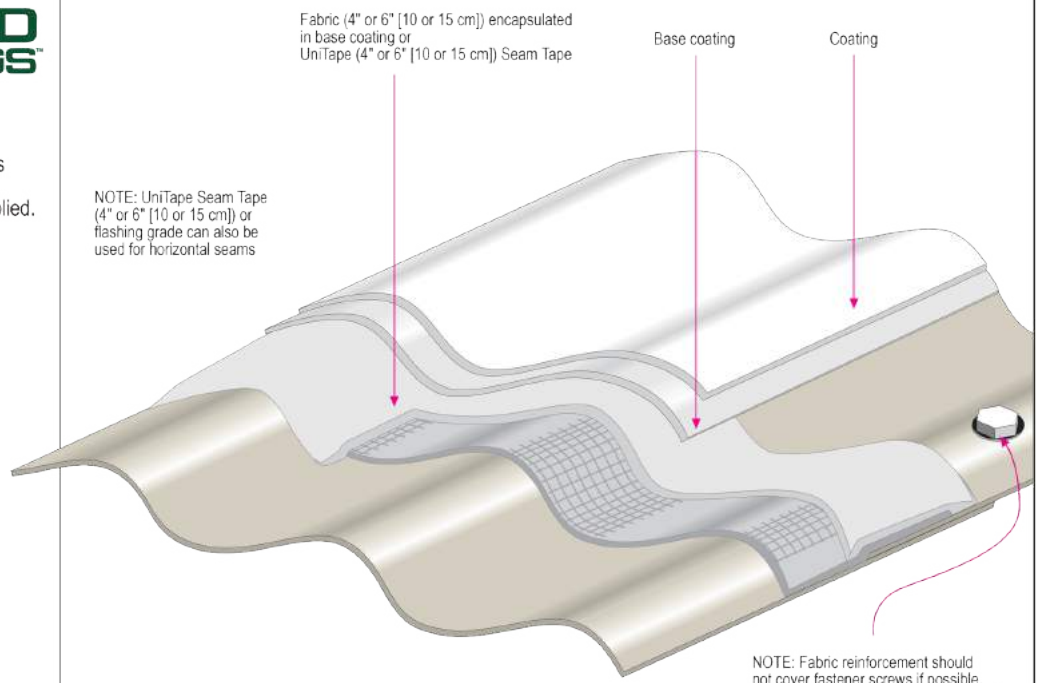
United Coatings™ Architectural Detail Drawings Directory

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NOTE: Refer to current specifications for recommended application rates and passes for the coating being applied.

NOTE: UniTape Seam Tape (4" or 6" [10 or 15 cm]) or flashing grade can also be used for horizontal seams



NOTE: Fabric reinforcement should not cover fastener screws if possible. Cut fabric away over any reinforcement screws so that it lies flat and is 100% adhered to the substrate.

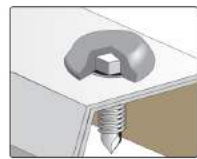
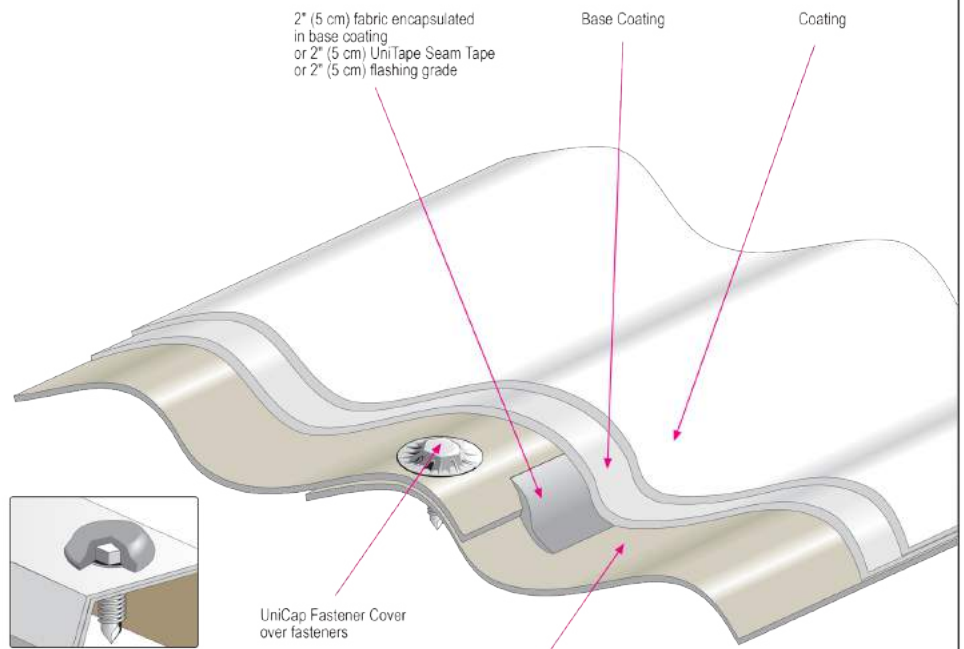


Corrugated Metal Horizontal End-Lap Seam
Version 1 06-13-16

UC-01



NOTE: Refer to current specifications for recommended application rates and passes for the coating being applied.

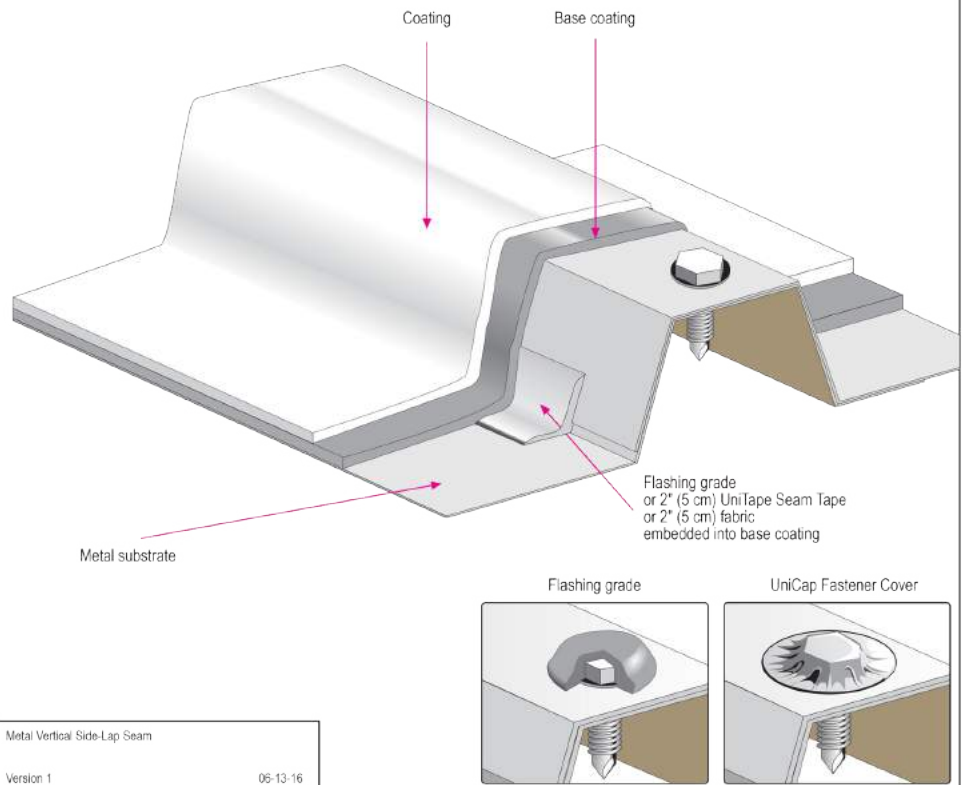


Corrugated Metal Vertical Side-Lap Seam
Version 1 06-13-16

UC-02



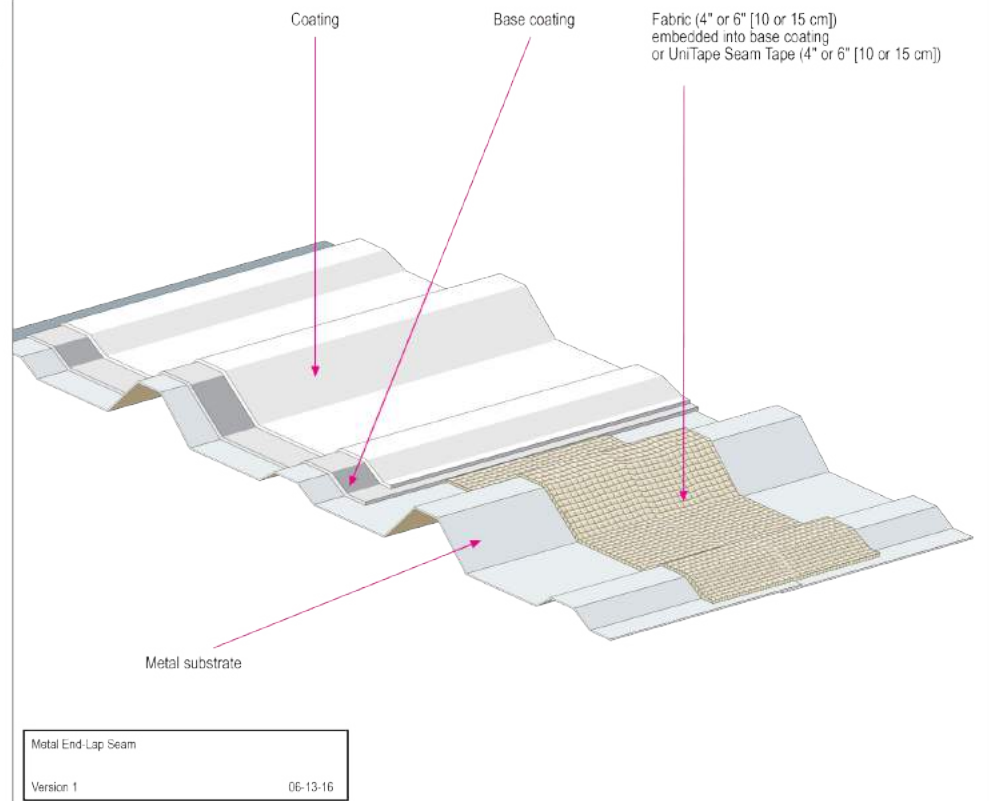
NOTE: Refer to current specifications for recommended application rates and passes for the coating being applied.



UC-03



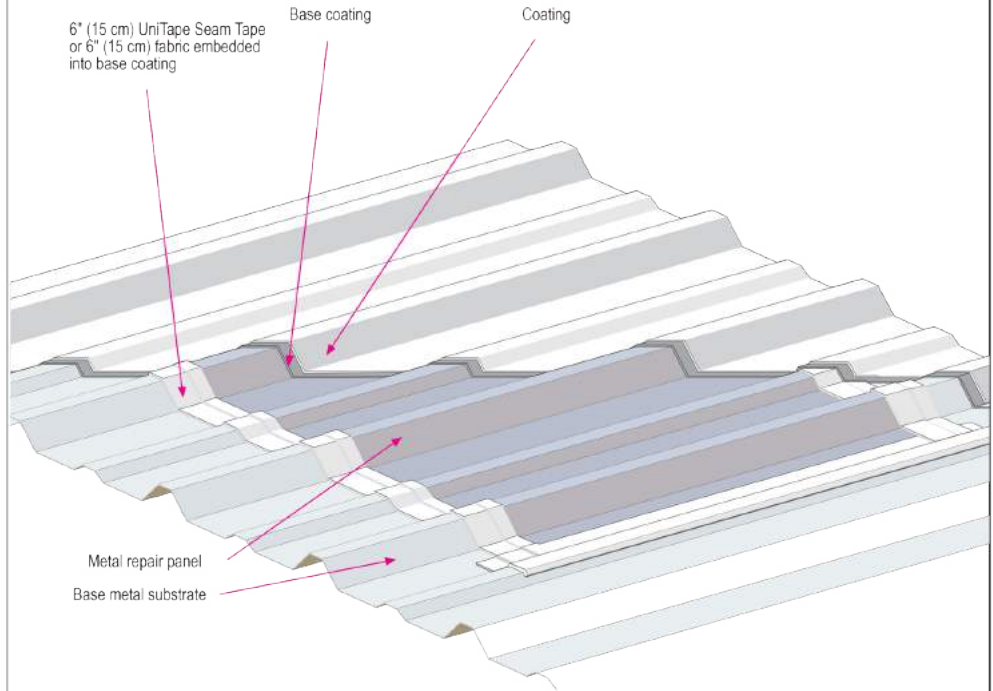
NOTE: Refer to current specifications for recommended application rates and passes for the coating being applied.



UC-04



NOTE: Refer to current specifications for recommended application rates and passes for the coating being applied.

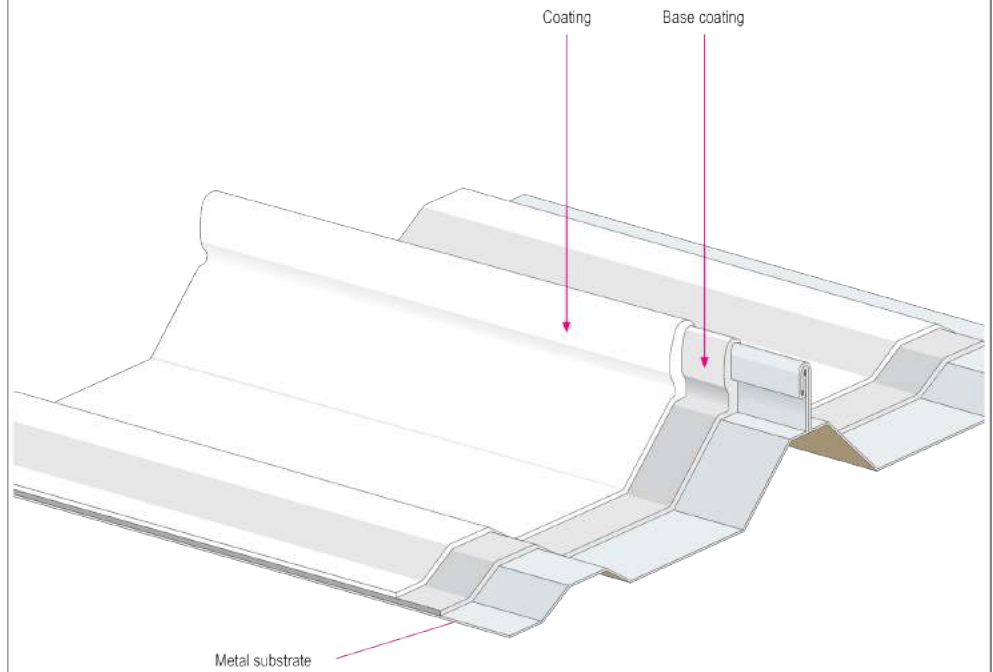


Metal Repair
Version 1 06-13-16

UC-05



NOTE: Refer to current specifications for recommended application rates and passes for the coating being applied.



Rolled Metal Seam with Base Coating and Coating
Version 1 06-13-16

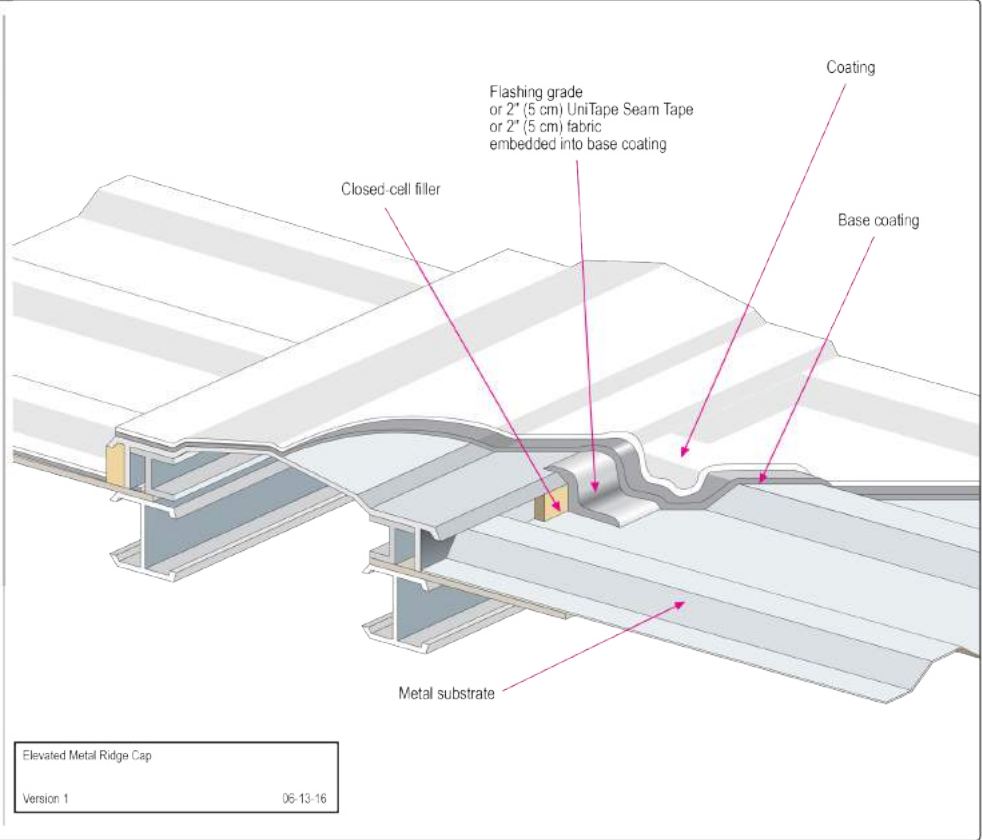
UC-06



NOTE: Refer to current specifications for recommended application rates and passes for the coating being applied.



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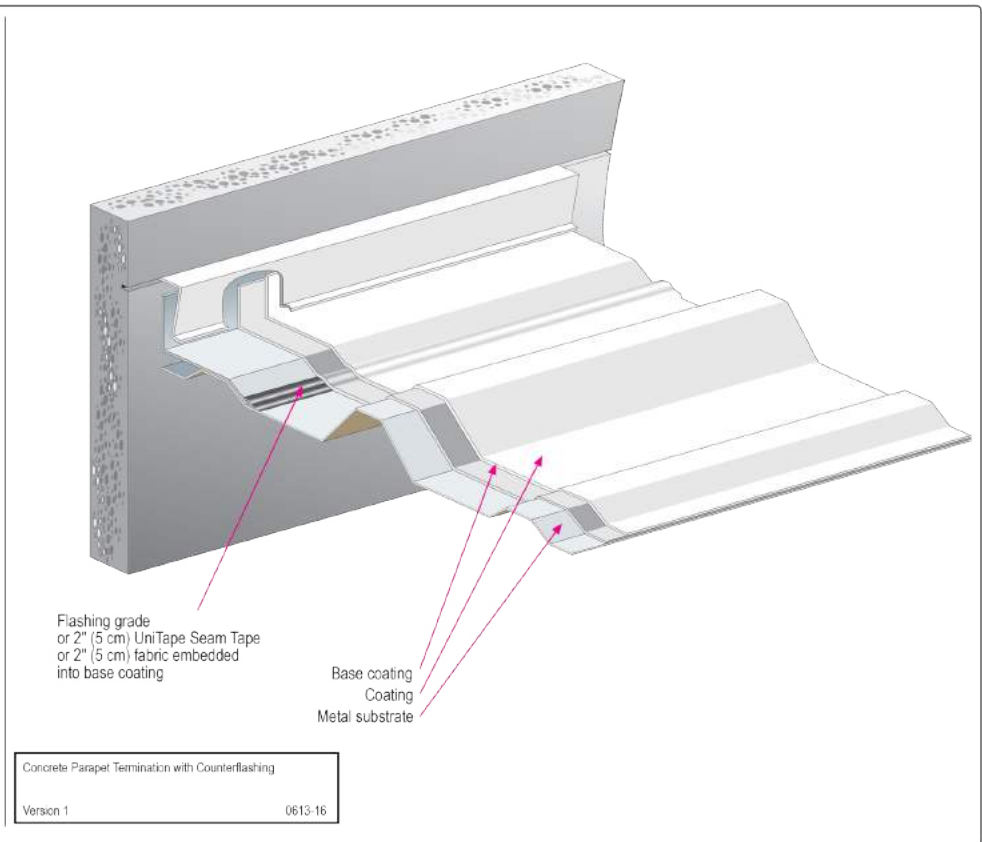
UC-07



NOTE: Refer to current specifications for recommended application rates and passes for the coating being applied.



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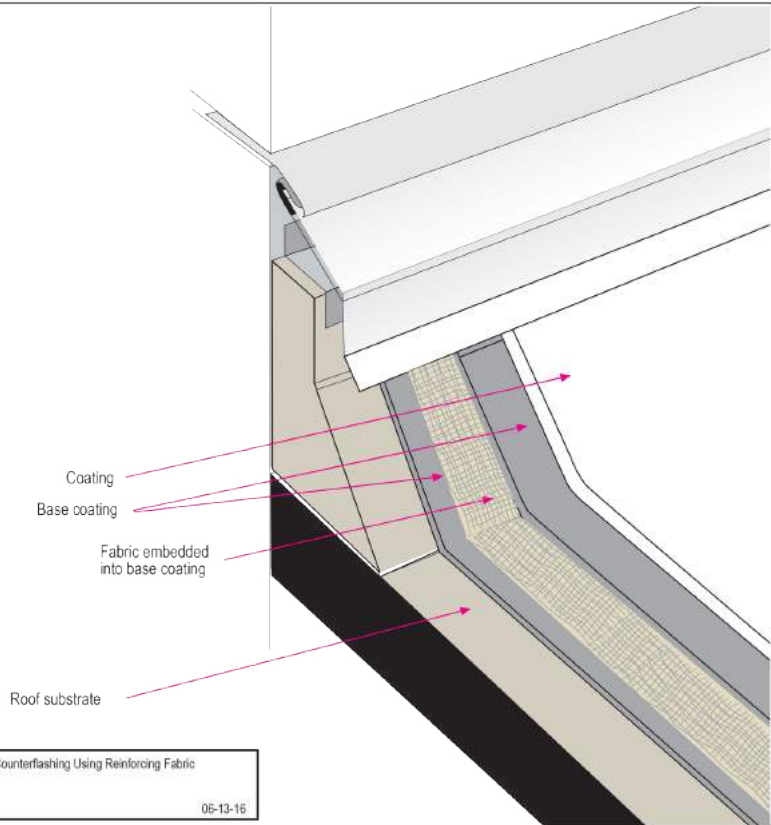
UC-08



NOTE: Refer to current specifications for recommended application rates and passes for the coating being applied.



Cant with Counterflashing Using Reinforcing Fabric
Version 1 06-13-16



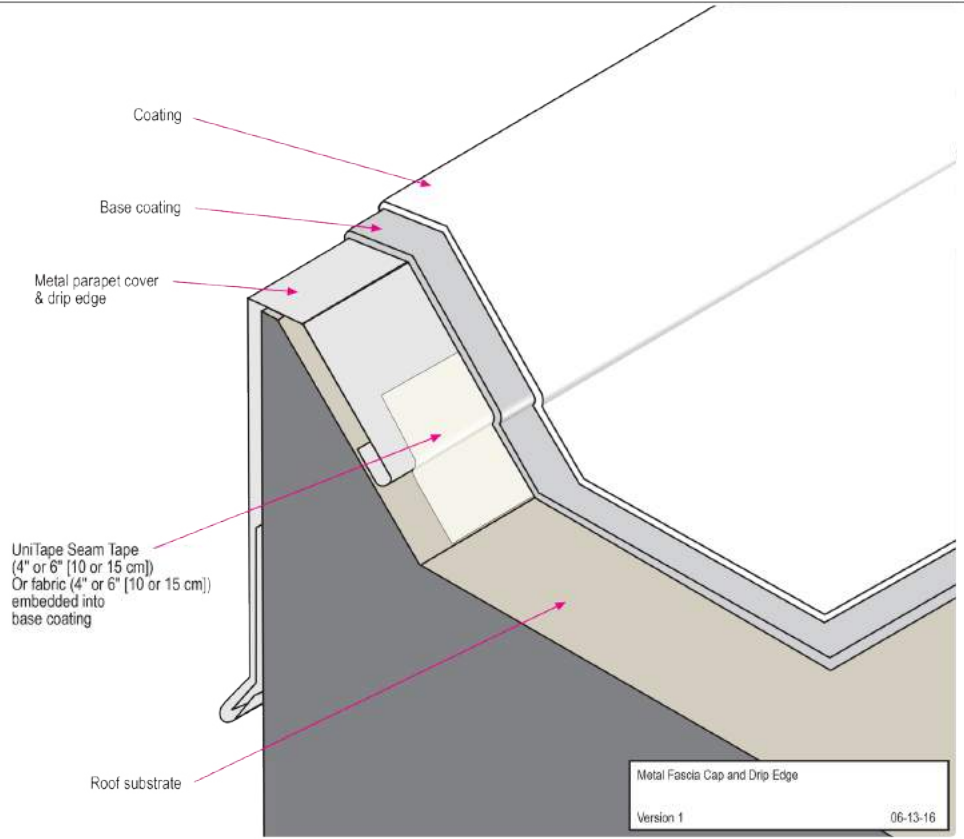
UC-09



NOTE: Refer to current specifications for recommended application rates and passes for the coating being applied.



Metal Fascia Cap and Drip Edge
Version 1 06-13-16



UC-10

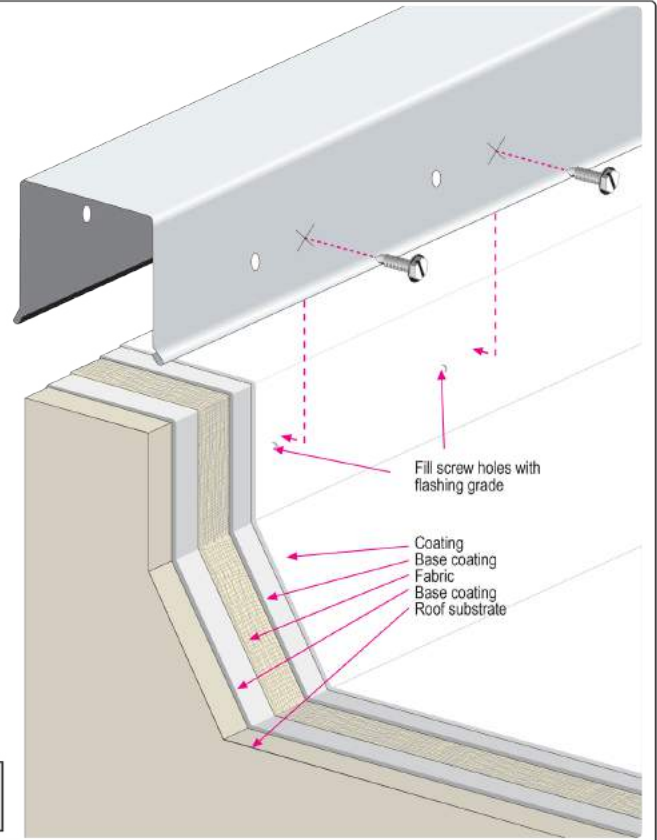


Remove metal ridge cap prior to application of coating. Replace after coating has cured. Use new screws positioned at least 1" (2.5 cm) horizontally from the original hole.

NOTE: Refer to current specifications for recommended application rates and passes for the coating being applied.



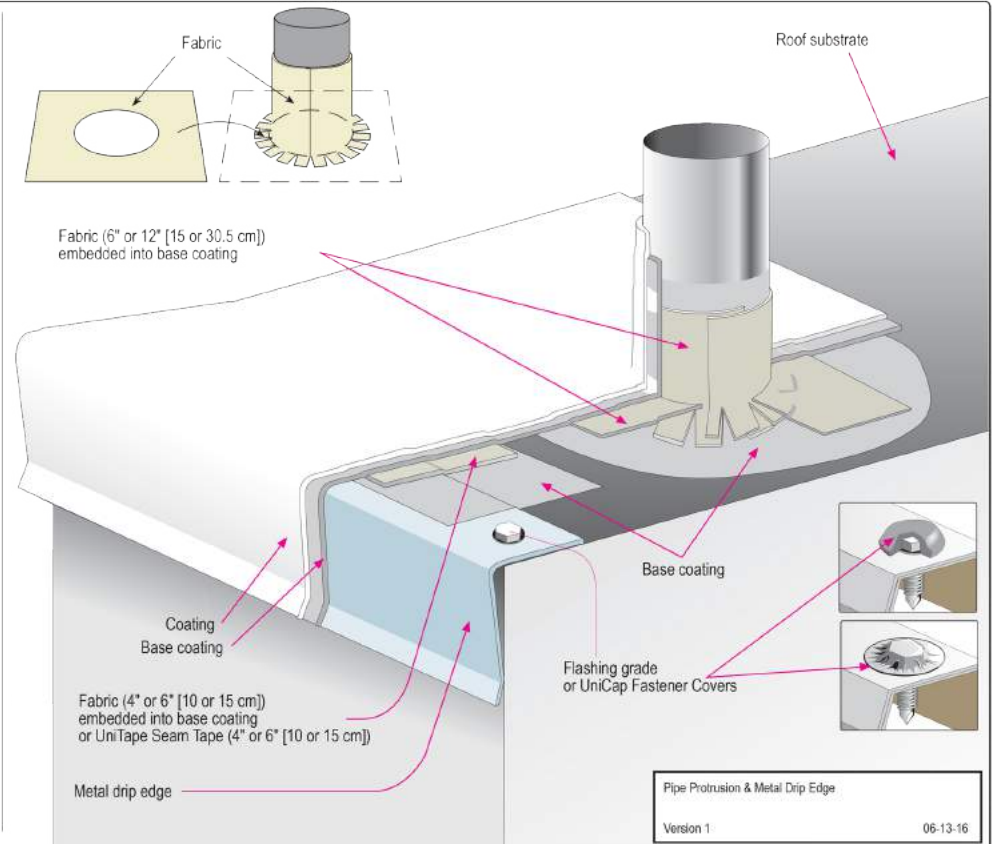
Parapet Wall with Metal Cap
Version 1 06-13-16



UC-11



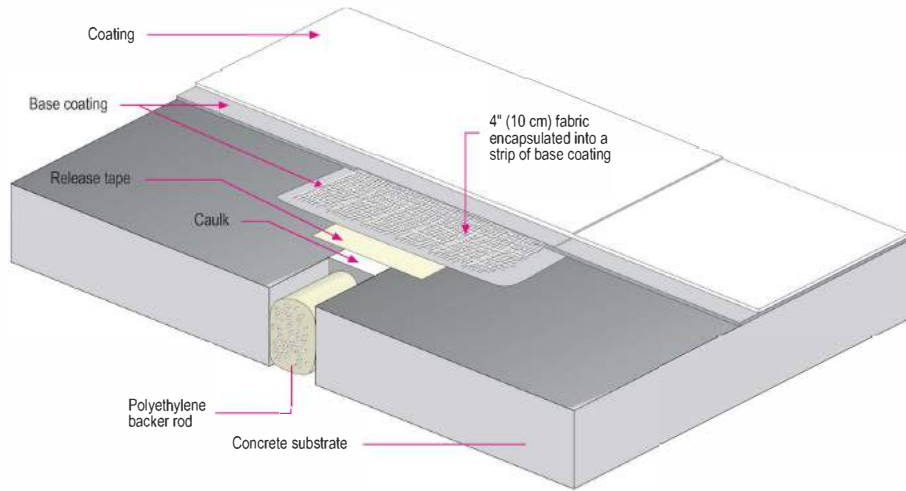
NOTE: Refer to current specifications for recommended application rates and passes for the coating being applied.



UC-12



NOTE: Refer to current specifications for recommended application rates and passes for the coating being applied.

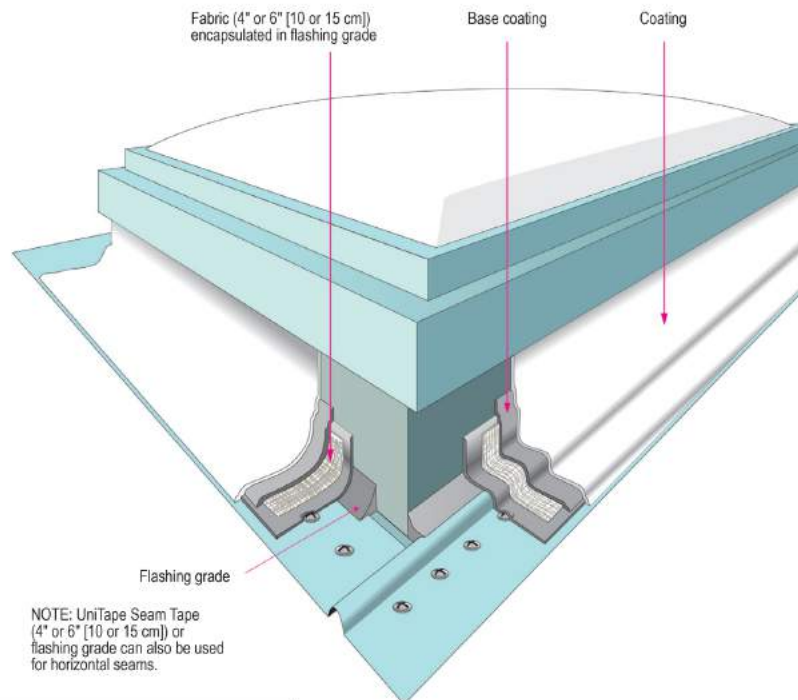


Control Joint Over Concrete
Version 1 06-13-16

UC-13



NOTE: Refer to current specifications for recommended application rates and passes for the coating being applied.



Concrete Parapet Termination with Counterflashing
Version 1 06-13-16

UC-14



NOTE: Refer to current specifications for recommended application rates and passes for the coating being applied.

Fabric cut to size and encapsulated in flashing grade.
NOTE: It is important to work quickly during this entire detail process. DO NOT allow the flashing grade to dry between coats or the fabric will not be properly encapsulated.

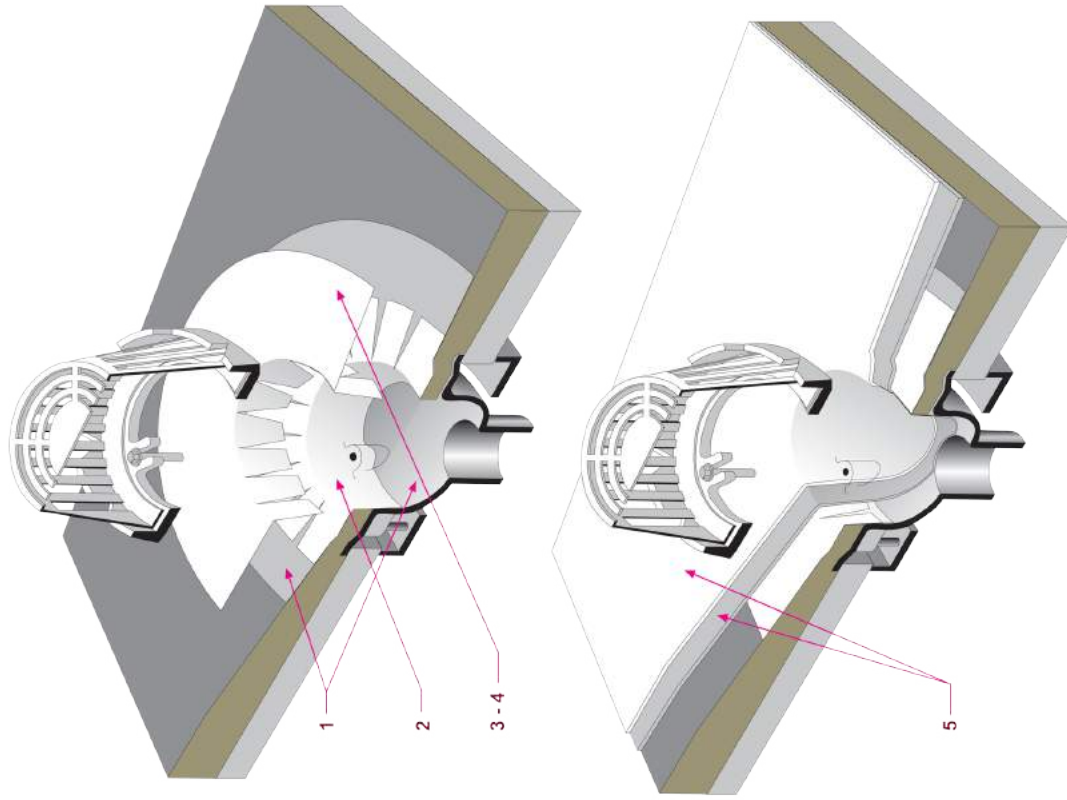
STEP 1: Using a 3" to 4" (7.5 to 10 cm) paintbrush, liberally apply a coat of flashing grade to the entire drain bowl. Extend the flashing grade approximately 6" (15 cm) beyond the bowl rim and onto the roof surface in all directions.

STEP 2: While the flashing grade is still wet, cut a strip of fabric long enough to line the interior diameter of the drain bowl with a 1" to 2" (2.5 to 5 cm) overlap. The fabric should be wide enough to fit approximately halfway to the bottom of the bowl while also extending 3" to 4" (7.5 to 10 cm) above the bowl rim. Cut the fabric extending above the bowl rim into flanges, flattening them into the wet flashing grade with the brush in a pattern extending away from the bowl. Apply additional flashing grade to completely encapsulate the fabric.

STEP 3: Cut a second, circular piece of fabric just large enough to cover the drain and fabric flanges of the first piece of fabric. Fold the fabric in half and then in half again to find the center. Use scissors to cut off enough of the point to create a hole in the exact center of the fabric that is not more than half the diameter of the drain bowl.

STEP 4: Unfold the circular piece of fabric and center it over the drain. Apply additional flashing grade around the perimeter of the drain if it is not still wet enough to absorb into the fabric. Cut the fabric into flanges extending outward from the center of the hole to the edge of the bowl. Use the brush to smooth the fabric flanges down into the bowl, working out any air pockets or wrinkles. Apply additional flashing grade to completely encapsulate the fabric, extending it 1" to 2" (2.5 to 5 cm) beyond the edge of the fabric around the perimeter of the drain on the roof surface.

STEP 5: Coat over the entire detailed area with base coating and coating as it is applied to the balance of the roof, per project specifications.

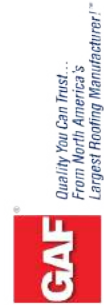


Fabric Reinforced Drain

Version 1

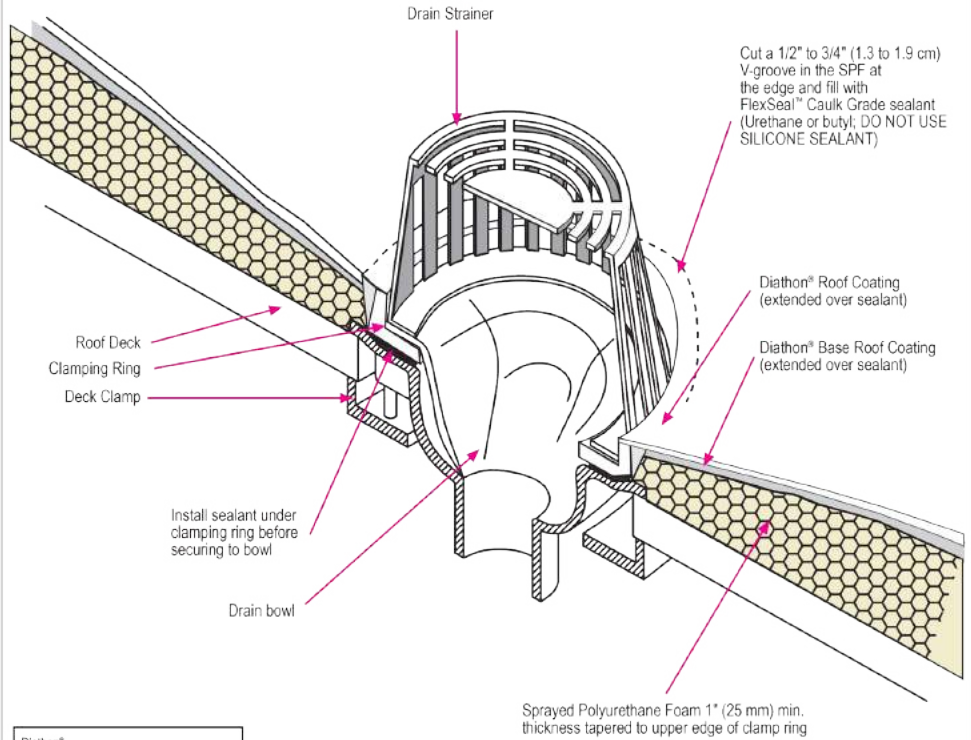
06-13-16

UC-15





Diathon® Roof Coating



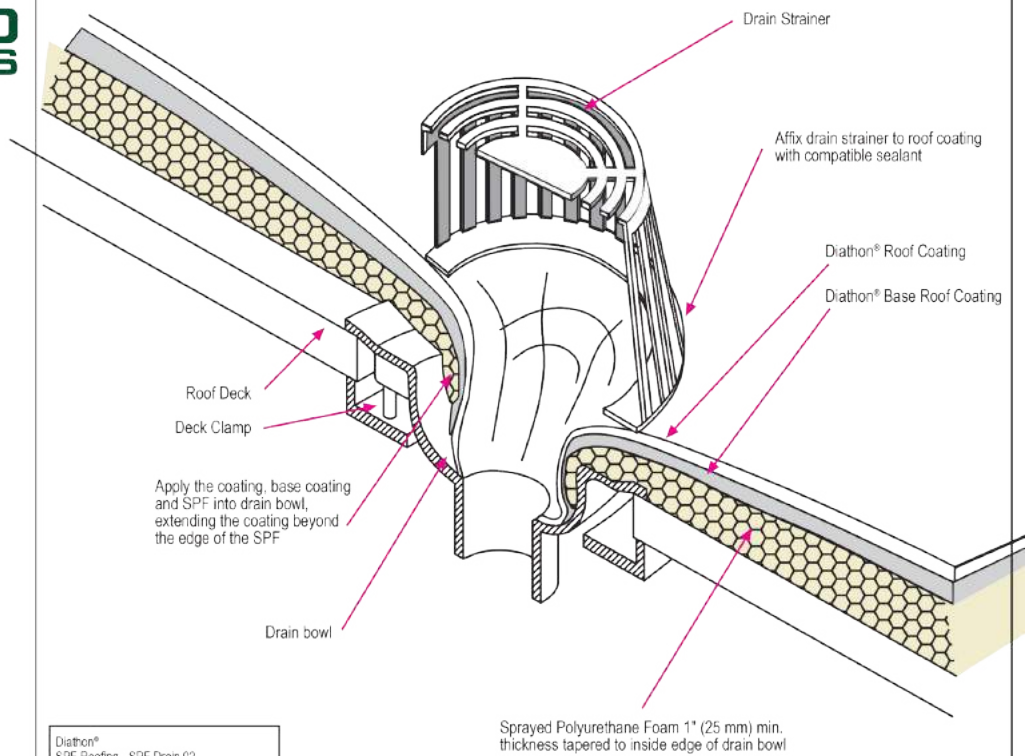
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Diathon® SPF Roofing - SPF Drain 01
Version 03 01-19-16, supercedes 09-02-08

UC-DI-01



Diathon® Roof Coating



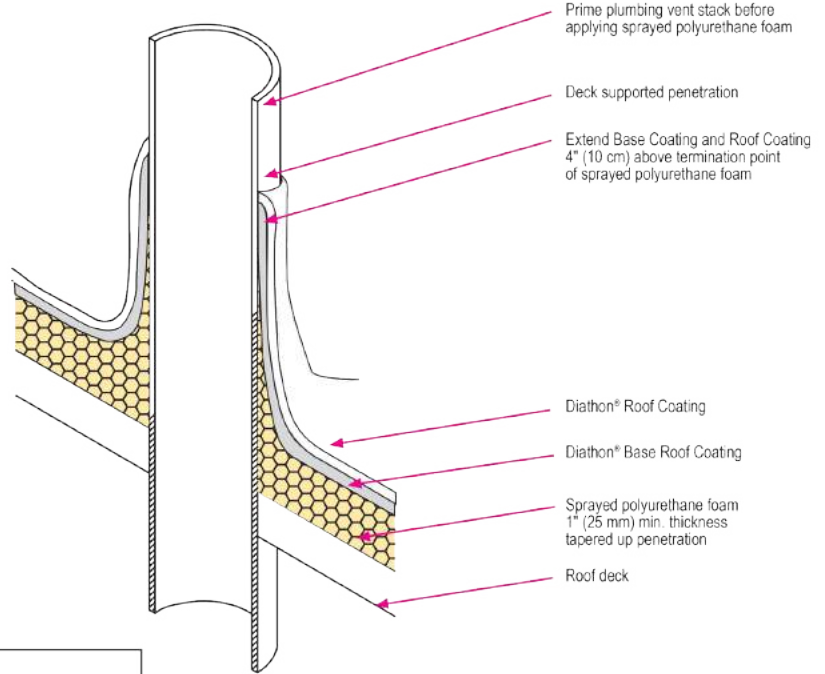
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Diathon® SPF Roofing - SPF Drain 02
Version 03 01-19-16, supercedes 09-02-08

UC-DI-02



Diathon® Roof Coating



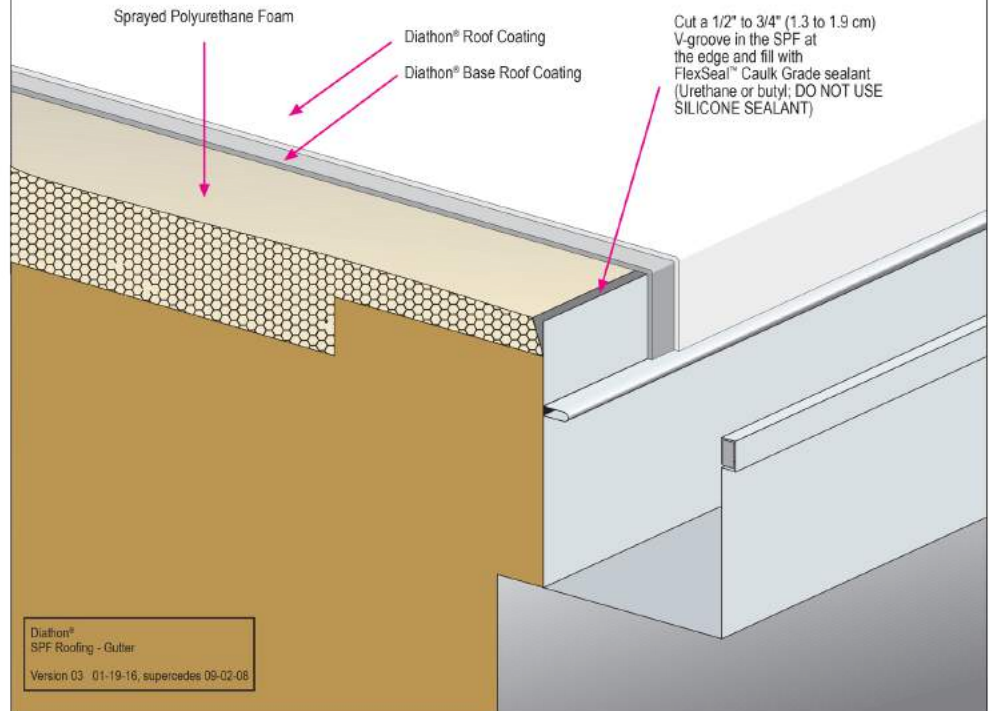
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Diathon®
SPF Roofing - Pipe or Extrusion
Version 03 01-19-16, supercedes 09-02-08

UC-DI-03



Diathon® Roof Coating



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Diathon®
SPF Roofing - Gutter
Version 03 01-19-16, supercedes 09-02-08

UC-DI-04

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