

Application guide

Henry® Asphalt Roof Emulsion Restoration System

This application guide provides instructions for successfully applying a Henry® Acrylic roof coating system on asphalt roofs (roll roofing, modified bitumen and built-up roofing). An asphalt roof emulsion coating system is a fluid-applied roof restoration system, supported by a variety of warranty offerings, that provides a cost-effective alternative to a full replacement.

Warranty installation options

10-year Asphalt Emulsion roof coating system					
		Granulated Cap Sheet	Smooth Cap sheet/BUR (non-aggregate)	Warranty Cost	
				Materials Plus	Gold Seal
FC	Pro-Grade® 197	40 mils DFT min. 5 gal/sq	32 mils DFT min. 4 gal/sq	No cost	\$0.06/sq.ft. \$900 min
BC	AcryShield® Base Coat 400*, 505	13 mils DFT min. 1.5 gal/sq	13 mils DFT min. 1.5 gal/sq		
TC	AcryShield® Top Coat 510, 550 HT or 610	13 mils DFT min. 1.5 gal/sq	13 mils DFT min. 1.5 gal/sq		
	Total (min. thickness)	66 mils DFT min. 8 gal/sq	58 mils DFT min. 7 gal/sq		

15-year Asphalt Emulsion roof coating system**					
		Granulated Cap Sheet	Smooth Cap sheet/BUR (non-aggregate)	Warranty Cost	
				Materials Plus	Gold Seal
FC	Pro-Grade® 197	32 mils DFT min. 4 gal/sq	24 mils DFT min. 3 gal/sq	No cost	\$0.08/sq.ft. \$1200 min
R	Henry® 195 Polyester Fabric	Reinforcing layer	Reinforcing layer		
FC	Pro-Grade® 197	32 mils DFT min. 4 gal/sq	24 mils DFT min. 3 gal/sq		
BC	AcryShield® Base Coat 400*	17 mils DFT min. 2.0 gal/sq	17 mils DFT min. 2.0 gal/sq		
TC	AcryShield® Top Coat 510, 550 HT or 610	17 mils DFT min. 2.0 gal/sq	17 mils DFT min. 2.0 gal/sq		
	Total (min. thickness)	98 mils DFT min. 12 gal/sq	82 mils DFT min. 10 gal/sq		

Ancillary components for all warranted assemblies				
Application	Product name	Product description	Coverage rate	
MB/BUR fasteners/defects	S Henry® 289 White Roofing Sealant	Roofing sealant	Varies by application	
	S Seal-Tek Micro Fibers	Fibered roofing sealant	See application guidelines for mixing instructions	
MB/BUR cap sheet	S Fully Reinforced System Not Required	n/a	n/a	

FC Foundation coat

BC Base coat

TC Top coat

R Reinforcing layer

S Sealant

NOTES:

* AcryShield 400 can be used as a top coat in certain assemblies/applications
 ** Total thickness to be must be achieved but you must give consideration to temperature and humidity levels during the time of application for curing and application coats. Will require multiple coats
 DFT = Dry Film Thickness (minimum requirement).

Product coverage rates represent minimum application requirement. Coverage rates are theoretical and do not take into account material loss due to spraying, surface texture, waste, etc. For previously coated roof membranes, the product coverage rates indicated in the charts above are applicable.

Warranty: Henry® asphalt emulsion roof coating system warranty durations are based on overall coating thicknesses. See coverage rate chart for requirements. Coverage rates do not account for material loss due to spraying, surface texture, waste, etc. Coverage rates are applicable for previously coated and non-coated roofs.

Safety statements: Use caution when applying and walking on coated surfaces. Coated surfaces can be extremely slippery and can create a fall hazard resulting in injury or death. All air intake ventilation equipment should be turned off to prevent fumes from entering building.

STEP 1: Substrate examination

I. Suitability of substrate:

- A. Conduct a visual inspection to ensure substrate suitability.
 - 1. Roofs must have positive drainage.
 - 2. Substrate, insulation and all surfaces must be sound, dry, clean and free of oil, grease, rust, dirt, excess mortar, frost, laitance, loose and flaking particles or contaminants.

II. Moisture survey:

- A. The installing contractor must verify the existing roofing assembly is dry and leak free prior to installation.
- B. Evaluate existing roof assembly for moisture, including saturated insulation, roof deck, roof components and defective roofing. Repair and replace in accordance with National Roofing Contractors Association (NRCA).
- C. Do not install asphalt emulsion over saturated insulation or substrates.
- D. Moisture survey includes a visual inspection and one or more of the following:
 - 1. Infrared thermography
 - 2. Nuclear scan
 - 3. Electric capacitance/impedance testing
 - 4. Roof core cut samples

III. Repair or replace defective existing roofing:

- A. Ensure skylights, scuppers, drains, gutters, penetrations and structures are firmly secured, watertight and in good working condition.
- B. Modified Bitumen/Smooth BUR:
 - 1. Remove and replace wet insulation and/or defective materials with like-materials and tie into existing roofing in accordance with NRCA.

IV. Weather considerations:

- A. Substrate must remain dry 12 hours after installation.
- B. Refer to minimum application temperature chart.

Minimum application temperature	
Product name	Substrate temperature
Pro-Grade® 197	50 °F (10 °C)
AcryShield 400	50 °F (10 °C)
AcryShield 505	50 °F (10 °C)
AcryShield 510	50 °F (10 °C)
AcryShield 550 HT	50 °F (10 °C)
AcryShield 610	50 °F (10 °C)
Henry® 289 White Roofing Sealant	50 °F (10 °C)

STEP 2: Substrate preparation

I. Clean:

- A. Confirm local water run-off ordinances and restrictions prior to cleaning roof.
- B. Surface cleaning:
 1. MB/smooth BUR and metal:
 - a. Carefully pressure wash roof surfaces with greater than 2,000 psi pressure to remove loose granules, debris, rust, scale, dirt, dust, chalking, peeling or flaking coatings, etc. Do not force water into the roof system or damage roof surfaces.
 - b. Remove grease, oils or contaminants which may interfere with adhesion using warm water and mild detergent.

- c. Treat areas of algae, mildew or fungus.
- d. Rinse roof to ensure removal of all detergent or anything else that could affect adhesion.

II. Flashing and details:

- A. Complete flashings and details prior to roof coating installation.
- B. Mix acrylic roof coating with drill and mixer blade prior to use until consistent viscosity is achieved.
- C. Refer to charts below for pre-treatment guidelines.

Pre-treatment of MB/BUR defects and loose or torn seams	
Flashing	MB/BUR
Option #1	<ol style="list-style-type: none"> 1. Generously apply Henry® 289 White Roofing Sealant under loose or torn seams, splits, cracks, blisters and cracked metal edging using a brush or trowel and firmly press loose roof membrane into sealant. 2. Apply Henry® 289 White Roofing Sealant at 1/8" thick (125 wet mils) minimum, extend 3" on each side of defect. 3. Center 6" wide Henry® 195 Polyester Fabric over seam and fully embed into sealant, ensuring 3" of fabric on each side of seam. Brush or roll fabric for proper adhesion and remove all voids. 4. Apply second layer of Henry® 289 White Roofing Sealant at 1/8" thick (125 wet mils) minimum, extend 3" on each side of defect; ensure fabric is fully coated.
Roof curbs, parapets and pipe penetrations for MB/BUR	
Flashing Options	MB/BUR
Option #1	Apply Henry® 289 White Roofing Sealant using a brush or trowel at 1/8" thick (125 wet mils), extend 4" minimum onto horizontal/vertical surfaces.
Option #2	Apply Seal-Tek Micro-Fibers using a brush or trowel at 1/8" thick (125 wet mils), extend 4" minimum onto horizontal/vertical surfaces.
Drains for MB/BUR	
<ol style="list-style-type: none"> 1. Remove and clean strainer, ring and other drain components. 2. Apply Henry® 289 White Roofing Sealant using a stiff bristled brush or sealant knife at 1/8" thick (125 mils) into the drain hole and completely encapsulating the drain bowl. 3. Install one layer of acrylic roof coating at 2 gallons per square (32 wet mils), starting from the drain bowl edge, extend 14" minimum beyond drain. 4. Fully embed Henry® 195 Polyester Fabric into roof coating, extend 12" beyond drain hole. Brush or roll fabric for proper adhesion and remove all voids. 5. Apply second layer of acrylic roof coating over fabric at 2 gallons per square (32 wet mils); ensure fabric is fully coated and extend roof coating 14" minimum beyond drain. 	

STEP 3: Asphalt emulsion application

I. Application of roof coating: Refer to the Coverage Rate Chart for warranted minimum requirements.

- A. Clean/prepare substrate in accordance with **Step 2: Substrate preparation** of this application guide.
- B. Refer to **coverage rate chart** for roof coating assembly configuration and coverage rates.
 1. No foundation coat: proceed to Step D.
 2. Unreinforced foundation coat assemblies:
 - a. Apply Pro-Grade® 197, starting installation at low point of roof; extend 8" up vertical surfaces.
 - b. Allow Pro-Grade® 197 to dry prior to subsequent layer. Proceed to Step D.
 3. Reinforced foundation coat assemblies:
 - a. Apply one layer of Pro-Grade® 197, starting installation at low point of roof; extend 8" up vertical surfaces.
 - b. Install Henry® 195 Polyester Fabric perpendicular to roof slope and fully embed into Pro-Grade® 197; ensure 4" overlap at seams. Brush or roll fabric for proper adhesion and remove all voids. Dry fabric overlap is not acceptable.
 - c. Immediately apply Pro-Grade® 197 onto Henry® 195 Polyester Fabric; ensure fabric is fully coated. Do not walk on wet Pro-Grade® 197. Allow to dry prior to coating application. Proceed to Step D.
- C. Mix acrylic roof coating with drill and mixer blade prior to use until consistent viscosity is achieved.
- D. Install acrylic roof coating base coat, extend 8" minimum up vertical surfaces; ensure coating is clean and dry prior to subsequent layer.
- E. Install acrylic roof coating top coat, extend 8" minimum up vertical surfaces; install perpendicular to cured base coat.

II. Walkways (optional):

- A. Ensure substrate is clean in accordance with **Step 2: Substrate preparation** of this application guide prior to coating application.
- B. Apply additional acrylic roof coating at traffic areas at a minimum 1 gallon per square (16 wet mils).
- C. Apply granules uniformly into wet roof coating at a rate of 20-30 pounds per square.
- D. Allow roof coating to dry.
- E. Remove loose particles from roof to avoid clogging drain.

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