

Application guide

Henry® Pro-Grade® Acrylic Roof Coating System

This application guide provides instructions for successfully applying a Henry® Pro-Grade® Acrylic roof coating system* on metal, aged single ply (PVC, EPDM and Hypalon®), asphalt roofs (roll roofing, modified bitumen and built-up roofing) and previously coated roofs. A Pro-Grade® Acrylic roof 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. This application guide is not intended for applications on shingles, coal tar substrates, gravel covered roofs, cold storage or cryogenic structures, and Kynar® or Hylar® coated metal roofs. Metal roofs must be greater than 28 gauge (0.015").

FC Foundation coat

BC Base coat

TC Top coat

S Sealant

RC Reinforced coating

Coverage rates

10-year Pro-Grade® Acrylic roof coating system* options

Coating assembly configuration		Granulated cap sheet	Smooth cap sheet/BUR (non-aggregate)	Single ply (PVC/ EPDM/ Hypalon®)	Metal****
Option #1 (Pro-Grade® 276 for material only warranties)	FC Pro-Grade® 197	5.00 gal./sq. (32 mil DFT)	4.00 gal./sq. (25 mil DFT)	n/a	n/a
	BC Pro-Grade® 280, Pro-Grade® 294 or Pro-Grade® 276	1.50 gal./sq. (13 mil DFT)	1.50 gal./sq. (13 mil DFT)	n/a	n/a
	TC Pro-Grade® 280 or Pro-Grade® 276	1.50 gal./sq. (13 mil DFT)	1.50 gal./sq. (13 mil DFT)	n/a	n/a
Option #2	BC Pro-Grade® 280 or Pro-Grade® 294	1.75 gal./sq. (14 mil DFT)	1.50 gal./sq. (13 mil DFT)	1.50 gal./sq. (13 mil DFT)	1.50 gal./sq. (13 mil DFT)
	TC Pro-Grade® 280	1.75 gal./sq. (14 mil DFT)	1.50 gal./sq. (13 mil DFT)	1.50 gal./sq. (13 mil DFT)	1.00 gal./sq. (9 mil DFT)
Option #3 (material warranty)	BC Pro-Grade® 276	1.50 gal./sq. (13 mil DFT)	1.50 gal./sq. (13 mil DFT)	n/a	n/a
	TC Pro-Grade® 276	1.50 gal./sq. (13 mil DFT)	1.50 gal./sq. (13 mil DFT)	n/a	n/a

12-year Pro-Grade® Acrylic roof coating system* options

Option #1	FC Pro-Grade® 197	4.00 gal./sq. (25 mil DFT)	3.00 gal./sq. (19 mil DFT)	n/a	n/a
	RC Henry® 195 Polyester Fabric	Reinforcement	Reinforcement	n/a	n/a
	FC Pro-Grade® 197	4.00 gal./sq. (25 mil DFT)	3.00 gal./sq. (19 mil DFT)	n/a	n/a
	BC Pro-Grade® 280 or Pro-Grade® 294	1.50 gal./sq. (13 mil DFT)	1.50 gal./sq. (13 mil DFT)	n/a	n/a
	TC Pro-Grade® 280	1.50 gal./sq. (13 mil DFT)	1.50 gal./sq. (13 mil DFT)	n/a	n/a
Option #2	BC Pro-Grade® 294	n/a	n/a	n/a	1.50 gal./sq. (13 mil DFT)
	TC Pro-Grade® 280	n/a	n/a	n/a	1.50 gal./sq. (9 mil DFT)

Ancillary components for all warranted assemblies

Application	Product name	Product description	Coverage rate
Metal seams, fasteners and defects	S Henry® 295 Metal Seam Sealer**	Metal seam sealer	Varies by application
MB/BUR fasteners/defects	S Henry® 289 White Roofing Sealant	Roofing sealant	Varies by application
Single Ply fasteners/defects	S Henry® 900 Construction & Flashing Sealant	Roofing sealant	Varies by application
MB/BUR cap sheet and Single Ply seams	Option #1	RC Pro-Grade® 280, Pro-Grade® 294 or Pro-Grade® 276	Acrylic roof coating
		Henry® 195 Polyester Fabric	Reinforcement fabric
	Option #2	RC Pro-Grade® 197	Asphalt emulsion
		Henry® 195 Polyester Fabric	Reinforcement fabric
EPDM Primer	Henry® 825 RubberKote™ Rinseable Primer	Single ply roof cleaner	2,500 square feet per 5 gallon pail

*Authorized Henry® Pro-Grade® Acrylic roof coatings include: Pro-Grade® 280, Pro-Grade® 294 or Pro-Grade® 276. Contact Henry® Company for project specific recommendations.

**Requires 7 day cure time prior to Pro-Grade® Acrylic application. Use Henry® 289 White Roofing Sealant in areas where Henry® 295 Metal Seam Sealer does not meet local VOC requirements.

***Built-Up Roof (BUR) and reinforced foundation coat assemblies do not require pre-treatment of secure and intact seams.

****For slopes greater than 3:12 contact Henry® Technical Support or your local Henry® sales representative. Include a stretch factor increase of 15 to 30% when calculating metal roof surface area. DFT = Dry Film Thickness (minimum requirement)

Warranty: Henry® Pro-Grade® Acrylic 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. Adhesion tests: (For instructions see link):

www.us.henry.com/acrylic-adhesion-instructions

- A. Granulated modified bitumen: not required
- B. Adhesion test requirements:
 - 1. Conduct at least two tests in the field of existing roof membrane, one every 10,000 sq. ft., plus any area of worn roofing, such as cracked or abraded surfaces.
 - 2. Any change in roof substrate
 - 3. Existing roof areas installed in phases
 - 4. Shaded areas
 - 5. Areas indicating ponding water
- C. Verify minimum 2.0 pli adhesion strength for each test for warranty eligibility.
- D. Adhesion test results less than 2.0 pli:
 - 1. Contact Henry® Product Support or your sales representative if results are less than 2.0 pli.

III. 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 Pro-Grade® Acrylic roof coating* 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

IV. Repair or replace defective existing roofing:

- A. Ensure skylights, scuppers, gutters, penetrations and structures are firmly secured, watertight and in good working condition.
- B. Ensure fasteners are secure and tight; replace loose fasteners with larger diameter fastener.
- C. Metal:
 - 1. Replace damaged, weakened or corroded metal panels, fascia, gutters, vents, ridge caps or flashings compromising structural integrity.
 - 2. Remove loose rust with wire brush, sandblast or mechanical abrasion until substrate is smooth and free of loose rust.
 - 3. Remove old and damaged mastic, sealant, and coating at laps, seams and metal fasteners.
- D. 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.
- E. Single ply:
 - 1. To remove wet insulation and/or defective materials, cut membrane on three sides; fold back and replace with like-materials.
 - 2. Fold single ply roofing back into place and patch using like materials or appropriate seam repair tape.

V. 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® 280	50 °F (10 °C)
Pro-Grade® 294	50 °F (10 °C)
Pro-Grade® 276	50 °F (10 °C)
Pro-Grade® 197	50 °F (10 °C)
Henry® 289 White Roofing Sealant	50 °F (10 °C)
Henry® 295 Metal Seam Sealer**	35 °F (2 °C)
Henry® 825 RubberKote™ Rinseable Primer	40 °F (5 °C)
Henry® 900 Construction & Flashing Sealant	32 °F (0 °C)

STEP 2: Substrate preparation

I. Clean:

- A. Confirm local water run-off ordinances and restrictions prior to cleaning roof.
- B. Surface cleaning:
 1. PVC, Hypalon®, 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 with a solution of household bleach and water.
 - d. Rinse roof to ensure removal of all detergent or anything else that could affect adhesion.
 2. EPDM:
 - a. Apply Henry® 825 RubberKote™ Rinseable Primer per product technical data sheet (TDS).

II. Primers:

- A. Metal roof and metal components:
 1. Rust primer: Install a commercial grade rust-inhibitive primer per primer manufacturer recommendations.

III. Flashing and details:

- A. Complete flashings and details prior to Pro-Grade® roof coating* installation.
- B. Mix Pro-Grade® 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.
- D. Metal seams:
 1. Horizontal laps, un-crimped vertical seams and ridge cap seams:
 - a. Apply foot pressure to under lapping panel next to horizontal lap or vertical seam; stitch-fasten gaps opening more than 1/8" wide on metal panel lap ensuring a continuous substrate/eliminate gaps.

Pre-treatment of MB/BUR and Single Ply defects and loose or torn seams				
Flashing	MB/BUR	Single Ply		
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 4" wide Henry® 296 ElastoTape Repair Fabric over seam and fully embed into sealant, ensuring 2" 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. 	Apply Henry® 900 Construction & Flashing Sealant at 1/8" thick (125 wet mils), extend 2" minimum each side of seam.		
Option #2	n/a	Install roof seam tape in accordance with roof seam tape manufacturer's published literature.		
Pre-treatment of secure and intact seams***				
Flashing Options	Modified Bitumen (MB) unreinforced foundation coat assemblies	Single Ply	Metal	
			Crimped standing vertical	Horizontal laps, un-crimped vertical seams and ridge cap seams
Option #1	<ol style="list-style-type: none"> 1. Install Pro-Grade® 197 at 3 gallons per square (48 wet mils), extend 4" minimum on each side of seam. 2. Center 6" wide Henry® 195 Polyester Fabric over seam and fully embed into foundation coat, ensuring 3" of fabric on each side of seam. Brush or roll fabric for proper adhesion and remove all voids. 3. Apply Pro-Grade® 197 at 3 gallons per square (48 wet mils), extend 4" minimum on each side of seam; ensure fabric is fully coated. 	<ol style="list-style-type: none"> 1. Install one layer of Pro-Grade® Acrylic roof coating* at 2 gallons per square (32 wet mils), extend 4" minimum on each side of seam. 2. Center 6" wide Henry® 195 Polyester Fabric over seam and fully embed into roof coating, ensuring 3" of fabric on each side of seam. Brush or roll fabric for proper adhesion and remove all voids. 3. Apply a second layer of Pro-Grade® Acrylic roof coating* at 1 gallon per square (16 wet mils), extend 4" minimum on each side of seam; ensure fabric is fully coated. 	No seam pre-treatment required	<ol style="list-style-type: none"> 1. Install one layer of Pro-Grade® Acrylic roof coating* at 2 gallons per square (32 wet mils), extend 4" minimum on each side of seam. 2. Center 6" wide Henry® 195 Polyester Fabric at upturn and fully embed into roof coating, ensuring 3" of fabric on each side of seam. Brush or roll fabric for proper adhesion and remove all voids. 3. Apply second layer of Pro-Grade® Acrylic roof coating* at 1 gallon per square (16 wet mils), extend 4" minimum on each side of seam; ensure fabric is fully coated.
Option #2	<ol style="list-style-type: none"> 1. Install one layer of Pro-Grade® Acrylic roof coating* at 2 gallons per square (32 wet mils), extend 4" minimum on each side of seam. 2. Center 6" wide Henry® 195 Polyester Fabric at upturn and fully embed into roof coating, ensuring 3" of fabric on each side of seam. Brush or roll fabric for proper adhesion and remove all voids. 3. Apply second layer of Pro-Grade® Acrylic roof coating* at 1 gallon per square (16 wet mils), extend 4" minimum on each side of seam; ensure fabric is fully coated. 	n/a	No seam pre-treatment required	Apply Henry® 295 Metal Seam Sealer** in accordance with the product TDS at 1/8" thick (125 wet mils), extend 2" minimum each side of seam.

Roof curbs, parapets and pipe penetrations for MB/BUR, Single Ply and Metal roofs

Flashing Options	MB/BUR	Single Ply	Metal
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.	n/a	Apply Henry® 295 Metal Seam Sealer** at 1/8" thick (125 wet mils), extend 4" minimum onto horizontal/vertical surfaces.
Option #2	1. Install one layer of Pro-Grade® Acrylic roof coating* at 2 gallons per square (32 wet mils), extend 4" minimum onto horizontal/vertical surfaces. 2. Center 6" wide Henry® 195 Polyester Fabric at upturn and fully embed into roof coating, extend 3" on both horizontal/vertical surfaces. Brush or roll fabric for proper adhesion and remove all voids. 3. Apply second layer of Pro-Grade® Acrylic roof coating* at 1 gallon per square (16 wet mils), extend 4" minimum onto horizontal/vertical surfaces; ensure fabric is fully coated.		

Fastener heads for metal roofs and metal components on MB/BUR, single ply roofs

MB/BUR	Single Ply	Metal
Completely encapsulate fastener heads with Henry® 289 White Roofing Sealant.	Completely encapsulate fastener heads with Henry® 900 Construction & Flashing Sealant.	Completely encapsulate fastener heads Henry® 295 Metal Seam Sealer**.

Drains for MB/BUR and Single Ply roofs

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 Pro-Grade® 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 Pro-Grade® 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: Roof coating application

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

- A. Mix Pro-Grade® Acrylic roof coating* with drill and mixer blade prior to use until consistent viscosity is achieved.
- B. Clean/prepare substrate in accordance with **Step 2: Substrate preparation** of this application guide.
- C. 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**.
- D. Install Pro-Grade® Acrylic roof coating base coat*, extend 8" minimum up vertical surfaces; ensure coating is clean and dry prior to subsequent layer.
- E. Install Pro-Grade® 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 Pro-Grade® 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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