

# **Henry<sup>®</sup> Maintenance System**

### APPLICATION GUIDE FOR 100% SILICONE

**Description:** This application guide provides instructions for application of a Henry Maintenance System (HMS) on metal, foam, concrete, single-ply and rubber roofs (TPO, PVC, EPDM and Hypalon®), and asphalt roofs (roll roofing, modified bitumen and built-up roofing), which are a minimum of 90-days old. When installed according to these instructions, Henry® 887 Tropi-Cool® 100% Silicone White Roof Coating is designed to provide a waterproof liquid-applied roofing system, supported with a LIFETIME LIMITED WARRANTY. This application guide is not intended to be used for applications on shingles, coal tar substrates, gravel covered roofs, or cold storage or cryogenic structures.

**Recommended Estimating Guidelines:** Certain conditions, such as granulated surfaces, aged surfaces, irregular surfaces, applicator technique and material loss may require additional product quantities. The following coverage rates and a minimum 10% more for estimating purposes is recommended to ensure you have enough products for the completion of your project.

COVERAGE RATES		
Application	Product	Coverage
Roof Coating	Henry® 887 Tropi-Cool® 100% Silicone White Roof Coating	319-square feet per 4.75-gallon pail
Penetrations, Flashings and Seams	Henry® 885 Tropi-Cool® 100% Silicone Seam & Repair Roof Sealant	12-square feet per 0.90-gallon pail applied 1/8" thick
Seam Reinforcement (Alternate option)	Henry® 887 Tropi-Cool® 100% Silicone White Roof Coating	63-linear feet per 0.90-gallon pail
	Henry® 296 ElastoTape Repair Fabric	150-linear feet per 150 ft. x 4" roll
Repairs	Henry® 884 Tropi-Cool® 100% Silicone Roof Sealant	32-linear feet of 1/4" bead per 10.1 fl. oz. cartridge

### **STEP 1: Prepare the substrate**

#### 1. Suitability of Substrate:

- A. Tropi-Cool® Silicone Coating is designed to be applied to clean, smooth, dry, frost-free and sound surfaces only.
- B. Tropi-Cool® Silicone Coating is designed to withstand moderate foot traffic associated with roof maintenance only. Do not apply in areas where heavy foot traffic is anticipated. Use extreme caution when applying and walking on silicone coated surfaces. Silicone coated surfaces are extremely slippery and can create a fall hazard resulting in death or injury.
- C. All areas must promote positive drainage.

#### 2. Weather Considerations:

A. Substrate temperatures must be above 35° F and rising, and at least 6° F above the dew point temperature and rising. Moisture, such as rain, must not come in contact with the roof during or within 15-mintues after installation.

#### 3. Moisture:

- A. All drains must be cleaned out and properly secured.
- B. The roof assembly must be completely dry and free of ice, snow, dew, and/or frost before installation.
- C. Roof decks, insulation or roof substrates saturated with water must be replaced.

#### 4. Clean:

- A. Remove all debris, including loose granules, from the roof.
- B. Carefully pressure wash all roof surfaces with appropriate pressure to remove dirt, dust, chalking, peeling or flaking coatings, etc. Do not damage roof surfaces or force water into the roof system.

- C. Scrub out any grease dirt or other contaminants that may interfere with adhesion. Use warm water and mild detergent to remove grease and oils. Treat algae or moss prior to pressure washing.
- D. The most effective method of cleaning algae and moss from a roof is with a 50:50 mix of laundry-strength liquid chlorine bleach and water. Apply with a sprayer and allow the solution to dwell on the roof surface for 15 to 20-minutes, and then rinse thoroughly with low pressure water. Extended dwell times may be necessary, however; avoid letting the solution dry completely as this may prevent complete rinsing. Take proper precautions to protect landscaping and surrounding areas from the chlorine bleach solution. Use appropriate personal protective equipment when working with chlorine bleach.
- E. Rinse roof to ensure removal of all detergent or anything else that could affect adhesion.

#### 5. Adhesion:

A. A test patch of Tropi-Cool® Silicone Coating must be applied to all varying roof substrates prior to application of this system to check for adhesion and compatibility. A minimum of two test patches must be performed on each substrate, plus one additional test patch per 10,000 square feet to be coated. Allow for coating to cure for a minimum of 72-hours prior to conducting adhesion test. If the test patches exhibit any incompatibilities, including discoloration, or if there is less than 2.0-pounds per linear inch adhesion please consult your local Henry® Sales Representative or call 1-800-486-1278 for alternate solutions regarding the application of this product.

### **STEP 2: Seal Potential Leaks**

- Blisters, Buckles, Splits, Cracks, Crazing, Loose Seams, and other Damaged Areas or Imperfections of the Roof System:
  - A. Repair or replace missing or damaged areas which may affect the watertightness of the roof or hinder Tropi-Cool® Silicone Coating adhesion.
  - B. Patch and repair damaged areas of the roof with Henry® 884 or Henry® 885 Silicone Roof Sealant.
- 2. Flashings, Curbs, Vents, Pipes, Skylights and Objects Affixed to the Roof
  - A. Verify objects affixed to the roof are firmly secured and in good working condition.
  - B. Remove any rust or loose materials, such as old roof cements or coatings. On metal roofs, remove rust with wire brush, sandblast, or mechanically abrade until substrate is smooth and rust-free.
  - C. Seal all pipes, skylights, flashings, curbs or any other roof penetrations where a leak may occur with a smooth 1/8" thick (125-wet mils) application of Henry® 885 Silicone Roof Sealant extending a minimum of 4" on each side (total of 8") and 4" up vertical surface ensuring a continuous and watertight finish.
  - D. Seal drains a minimum of 1" inside the drain pipe neck with a smooth 1/8" thick (125-wet mils) application of Henry® 885 Silicone Roof Sealant extending outside of the drain pipe and onto the horizontal surface 12" on all sides of the drain ensuring a continuous and watertight finish.

- E. Seal all exposed screws or other fasteners used on the roof with a smooth 1/8" thick (125-mils) application of Henry® 884 or Henry® 885 Silicone Roof Sealant so that the fastener is completely encapsulated and watertight.
- 3. Existing Roof Membrane Seams:
  - A. Seal all roof membrane seams (overlaps) using either of these options:
    - Option A: Apply a smooth 1/8" thick (125-wet mils) application of Henry® 885 Silicone Roof Sealant extending 3" on each side of the seam (total of 6" wide) to ensure a continuous and watertight finish.
    - Option B: Apply a 3-course application of Tropi-Cool® Silicone Coating and Henry® 296 ElastoTape Repair Fabric following this procedure:
      - a. Apply Tropi-Cool® Silicone Coating, extending 3" on each side of the seam (total of 6" wide) at a rate of 1.5-gallons per 100 square feet (24-wet mils).
      - b. Embed Henry® 296 ElastoTape Repair Fabric into the wet Tropi-Cool® Silicone Coating so that the Henry® 296 is centered over the roof membrane seam.
      - c. Apply an additional 6" wide coat of Tropi-Cool® Silicone Coating over the Henry® 296 ElastoTape Repair Fabric at a rate of 1.5-gallons per 100 square feet (24-wet mils).

## STEP 3: Apply Henry® 887 Tropi-Cool® Silicone Coating

- Coating may settle during storage. Mix well prior to and during use with a drill and mixing paddle until consistent viscosity is achieved.
  - A. 1- and 5-gallon size pails: use a minimum 3" diameter mixing paddle or hand mix with a suitable paddle.
  - B. Drums: use a minimum 6" diameter mixing paddle.
- 2. Apply Tropi-Cool® Silicone Coating in one coat smoothly and evenly over entire roof surface, including parapet walls at a minimum rate of 1.5-gallons per 100 square feet (24-wet mils). Dry film thickness (DFT) should be a minimum of 22-mils.
- 3. Coating must be evenly applied and pin-hole free.

- 4. On steep-slopes, rough or aged surfaces, additional coats may be required to obtain a uniform, consistent thickness.
  - A. Ensure coating is fully cured prior to additional coating installations. Cure times generally require a minimum of 2 to 6-hours depending on weather conditions.
  - B. Complete additional coats within 48-hours. Waiting longer than 48-hours may require initial coat to have to be washed prior to application of additional coats.
  - C. Apply subsequent coats perpendicular in fashion to the previous coat. For example, apply 1st coat north and south; apply 2nd coat east and west.

For more information, visit www.henry.com or for technical assistance call us at 800-486-1278.

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