



TECHNICAL DATA SHEET
687 100% Acrylic
Enviro-White™
Extreme Elastomeric Roof Coating

Typical Physical Properties

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|---|------------------------------|--|-------------------------------------|
| Appearance | Bright white liquid | Low Temp Flexibility (Initial) (ASTM D522) | Pass 0° F @ ½ in. bend |
| Solids by Weight (ASTM D1644) | 59% minimum | Low Temp Flexibility (After 1,000 hours aging) (ASTM D522) | Pass 0° F @ ½ in. bend |
| Solids by Volume (ASTM D2697) | 48% minimum | Solar Reflectance per CRRC (ASTM C1549) | 0.86 initial and 0.80 after 3 years |
| VOC | 50 g/l maximum | Thermal Emittance per CRRC (ASTM C1371) | 0.90 initial and 0.90 after 3 years |
| Weight per Gallon (ASTM D1475) | 10.50–11.50 lbs. | Solar Reflectance Index (SRI) per CRRC (ASTM E1980) | 109 initial and 100 after 3 years |
| Brookfield Viscosity (ASTM D2196) | 17,000–21,000 cPs, 6D/20 rpm | Water Absorption (ASTM D471) | 20% maximum |
| Tensile Strength Film (Initial) (ASTM D2370) | 150 psi minimum | Water Vapor Permeance (ASTM D96) | 20 perms maximum |
| Elongation (Initial) (ASTM D2370) | 250% minimum | Application Temperature (Ambient) | 50° F and rising |
| Elongation (After 1,000 hours aging) (ASTM D2370) | 150% minimum | | |

Approvals and Certifications

- Cool Roof Rating Council (CRRC) rated product: Product ID# 0620-0032
- Meets the requirements of California Energy Commission (CEC) Title 24 Section 118(i)3

Description

HENRY® 687 100% ACRYLIC ENVIRO-WHITE™ EXTREME ELASTOMERIC ROOF COATING reflects damaging UV rays and features Dirt Pick-Up Resistance (DPR) technology to keep your roof whiter and more reflective longer.

Features

- Save more than \$4,600 on cooling costs*
- Dirt Pick-Up Resistance† (DPR) technology for longest lasting reflectivity
- Waterproofs as part of a Henry® Maintenance System (HMS)
- Bright white with excellent hiding power
- Reflects >80% of sun's heat and UV rays after 3 years; prolongs roof life
- Mildew and stain resistant
- 12 year limited warranty with 1-time application

Product Size

1 GALLON, 5 GALLON, 55 GALLON, 275 GALLON

Usage

- Recoating roofs previously coated with asphalt emulsion, acrylic or aluminum coatings
- Aged asphalt roofs, including Built-Up Roofing (BUR) and Modified Bitumen (MB)
- Metal Roofs

Not recommended over shingles of any kind.

Application

CLEAN: Before coating the roof, use a pressure washer or high pressure nozzle and water hose to wash the roof with a non-filming detergent, such as TSP or TSP substitute. Use appropriate pressure and take caution not to inject water into the roof substrate. In areas with stubborn dirt, grease, or other contaminants, use a stiff bristle brush or broom to scrub the areas clean with additional water and non-filming detergent. Treat algae or moss. 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. In severe cases, it may take more than one bleach treatment to kill all of the moss. Give the roof a final rinse to ensure it is free of all detergent or anything else that could affect adhesion. Allow roof to dry completely before application. Using a leaf blower or broom, clear any remaining dust, dirt, debris, and foreign material that may prevent proper adhesion.

PREP: Carefully inspect area to be coated, including around pipes, chimneys, equipment, roof edges and walls. Repair all cracks, breaks, splits and holes by embedding **Henry® 296 ElastoTape Repair Fabric** between two heavy coats of **Henry® 289 White Roofing Sealant – Elastomeric**, applied over and at least 2" beyond repair. Tighten fasteners on metal roofs. Seal fasteners and seams with **Henry® 289 White Roofing Sealant – Elastomeric**. Allow all repairs to form a skin and set up from 2-24 hours, depending on depth of fill and weather conditions before coating. Ensure all drains are clean and clear and cut back any vegetation that is growing that may cause debris to fall on the roof and clog drains in the future. On metal roofs, remove rust by wire brushing.

Optional: Apply a base coat of **Henry® 107® Asphalt Emulsion Sealer & Dampproof**er at a rate of 3-4 gallons per 100 square feet. Emulsion base coat must be fully cured before applying reflective coating; usually in 3-7 good drying days.

APPLY: Mix thoroughly. Apply on a sunny day when roof surface is warm to the touch. Surface may be dry or slightly damp, but not wet. If the roof surface is too hot to touch >140° F (>60° C), it is too hot to coat. Apply with heavy-duty sprayer or deep-pile paint roller with wood handle and metal threads, keeping strokes in one direction.

RECOAT: Apply second coat when the first is dry, preferably on the same day. Allow to dry fully between coats. For large roofs, apply two coats to one section per day. Apply second coat at right angles to first coat. Schedule work so that coating has 2 hours to dry before nightfall.

NOTE: Ponding water resistant up to 48 hours. For older, low-slope roofs where depressions pond water for extended periods, **Henry® 176 PondPatch®** is recommended to provide positive slope in those areas and to eliminate ponding. Follow all product label instruction before coating.

Please consult Henry® Product Support for any specific questions regarding the application of this product.

Coverage

Smooth Surfaces: Approximately 500 square feet per 5 gallon size pail per coat (approximately 100 square feet per gallon per coat). Apply two coats.

Rough Surfaces: Approximately 100 square feet per 1.5 gallons per coat depending on porosity and roughness of surface. Apply two coats.

Clean-Up

Before coating dries, clean hand tools, spillage, etc., with warm soapy water. If coating has dried, clean hands with waterless hand cleaner. Soften the dried film on tools with mineral spirits, then scrape clean. When using mineral spirits, exercise safe practices concerning flammability and toxicity.

Precautions

DO NOT THIN. DO NOT APPLY IF RAIN OR TEMPERATURES BELOW 50° F (10° C) ARE EXPECTED WITHIN 12 HOURS (low temperature and/or high humidity may require longer drying time). DO NOT ALLOW COATING IN PAIL TO FREEZE. Do not heat container or store at temperatures >120° F (>49° C). When transporting, make sure the pail is secured and the lid is tight to prevent spills. This coating is not intended for application over plywood, walking decks, uncoated SPF roofs, rubber or PVC sheet roofs, silicone coated roofs, shingles of any kind, roofs previously covered with loose or embedded gravel ballast. Wear eye protection when applying in the sun.

Warning

This product contains chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Suspected of causing cancer. May cause respiratory irritation.

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye protection. Wash thoroughly after handling. Avoid breathing vapors, mists and sprays. Contaminated work clothing should not be allowed out of the workplace. Use only outdoors or in a well-ventilated area.

Response: IF EXPOSED OR CONCERNED: Get medical advice or attention. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs; Get medical advice or attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal: Dispose of contents/containers to an approved waste disposal plant.

See safety data sheet for further details regarding the safe use of this product.

KEEP OUT OF REACH OF CHILDREN.

FOR EXTERIOR USE ONLY.

KEEP FROM FREEZING.

Limited Product Warranty

We, the manufacturer, warrant only that this product is free of defects, since many factors which affect the results obtained from this product - such as weather, workmanship, equipment utilized and prior condition of the substrate - are all beyond our control. We will replace at no charge any product proved to have a material defect within 12-years of purchase, provided it has been applied in accordance with our written directions for uses we recommend as suitable for this product. Proof of purchase must be provided. **DISCLAIMER OF WARRANTIES AND LIMITATION OF LIABILITY: THIS LIMITED WARRANTY IS IN LIEU OF ANY OTHER WARRANTIES EXPRESS OR IMPLIED INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. MANUFACTURER SHALL HAVE NO LIABILITY OF ANY KIND BEYOND PRODUCT REPLACEMENT, INCLUDING FOR CONSEQUENTIAL, EXEMPLARY OR INCIDENTAL DAMAGES RESULTING FROM ANY DEFECTS OR ANY DELAYS CAUSED BY REPLACEMENT OR OTHERWISE. IF PURCHASER DOES NOT ACCEPT THESE TERMS OF HENRY'S LIMITED WARRANTY, PURCHASER MAY RETURN WITHIN 30-DAYS OF PURCHASE ALL CONTAINERS OR PACKAGES OF PRODUCT PURCHASED FOR A FULL REFUND (PROVIDED THE CONTAINERS OR PACKAGING IS UNOPENED AND LESS SHIPPING CHARGES IF ANY). RETENTION OF PRODUCT BEYOND 30-DAYS FROM PURCHASE, OR USE OF PRODUCT SHALL CONSTITUTE ACCEPTANCE OF HENRY'S LIMITED WARRANTY TERMS, CONDITIONS AND DISCLAIMERS. THIS LIMITED WARRANTY PROVIDES THE PURCHASER'S EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT.** To the extent that any part of this LIMITED PRODUCT WARRANTY AND LIABILITY DISCLAIMER is determined unenforceable under the law of the place of purchase of the product, that part is severed and the remainder of these terms remain in full force and effect. To the extent permitted by law, the duration of any implied warranties is limited to the duration of Henry's express warranty.

*Savings calculations are based on a 1,900 square foot building in Phoenix, AZ using the DOE Cool Roof Calculator, developed by the U.S. Department of Energy's Oak Ridge National Laboratory (Version 1.2): <http://www.ornl.gov/sci/roofs+walls/facts/CoolCalcEnergy.htm>

- Savings calculations are relative to a black roof.
- Calculations are based on the following input assumptions:
 - 3-year aged solar reflectance and infrared emittance as listed on the CRRC Products Directory: <http://coolroofs.org/products/results/search&channel=products/>
 - All other input fields are the listed "average" values. "Fuel" energy source for heating is selected, using natural gas and a furnace.
- Savings calculations are based on the above input assumptions, multiplied by the listed product warranty term.
- Savings calculations are hypothetical and based on DOE Cool Roof Calculator modeling only. YOUR ENERGY SAVINGS MAY VARY.

†Henry® Dirt Pick-Up Resistance (DPR) Test Method MOT P-14

STATEMENT OF RESPONSIBILITY

The technical and application information herein is based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability, or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use. Data sheets are updated on a regular basis; it is the user's responsibility to obtain and to confirm the most recent version. Information contained in this data sheet may change without notice.