

Architect received District direction to use/specify Thermoplastic Membrane Roofing for this campus. Henry's is a built-up roofing system, therefore can not approve Request for Substitution.

-Juan Cantoran, RCA
12/23/2020

SECTION 01 60 00.01

REQUEST FOR SUBSTITUTION

SUBSTITUTION REQUEST NO. 1

DATE: 12/17/2020

PROJECT NAME: Pacific HS Modernization

PROJECT NUMBER: 1-78-21

TO: Juan Cantoran @ Ruhnau Clark Architects

FROM: Scott Lyon @ Bell Roof Company

We hereby submit for your consideration the following product comparisons of the specified product and the proposed substitution. The undersigned fully understands that failure to answer any item below may be cause for rejection of request for substitution.

Request for substitution shall only be made during bidding (not later than 7 days prior to bid opening for inclusion by Addendum) except under conditions beyond control of Contractor.

Specified Product: Thermoplastic Membrane Roofing

Project Manual Section Title Roofing Number 075400 Page 6 Paragraph 2.01

Drawing No. N/A Detail No. N/A

Proposed Substitution: Henry Cold Applied Built-up Roof System

Manufacturer: Henry - Gideon Brown (gbrown@henry.com) Tel: 806-206-7578

A. Reason request for substitution is being submitted:

Henry is District Standard and Preferred Roofing System

B. Does proposed substitution affect in any way the Structural Safety, Access Compliance, or Fire & Life Safety portions of the project? No x Yes

Explain _____

- B. Does proposed substitution affect dimensions, gages, weights, etc. on Drawing?

No X Yes _____

Explain _____

- D. Does proposed substitution require changes in Drawings or design and installation changes? No _____ Yes _____

(If yes, cost of these changes is the responsibility of the Contractor.)

- E. Does proposed substitution affect product cost, delivery time, or construction schedule?

No X Yes _____ Explain

- F. Does proposed substitution comply with specified ICC Number, UL Rating, ASTM Numbers? No X Yes _____ Explain

ICC, UL Rating, and ASTM comply with Henry System and Products

- G. Does proposed substitution affect other trades and systems such as wiring, piping, ductwork, structure, etc.? No X Yes _____ (Explain which and how)

If yes, has impact on their work been included in price of proposed substitution?

No _____ Yes _____.

- H. Does proposed substitution product guarantee differ from that of the specified product?

No X Yes _____ Explain

If the substitution request is accepted, it will result in: No cost impact X credit of \$

_____.

Attach a listing of 3 projects (one in service for at least 3 years) using the proposed substitution.

Class A

1. Deck: NC

Incline: 2

Membrane: — Bakor Inc. "Bakor 790-11 Hot Rubberized Asphalt" or "Henry 790-11 Hot Rubberized Asphalt", applied as a hot fluid a min of 3 mm (1/8 in.) thickness when cooled.

Insulation: — Dow Chemical "Styrofoam RM" or UC Industries "Foamular 404", applied loose over max 6 mil thick polyethylene adhered to "Bakor 790-11 Hot Rubberized Asphalt" or "Henry 790-11 Hot Rubberized Asphalt" while still warm.

Surfacing: — Crushed stone applied loose at 1000 lb/sq min, over one layer of any of the following: 2 oz/sq yd mats Phillips "P3B", Confil D6891+ or Fabrene "VIE", concrete paver blocks, poured in place, concrete slab or Styrofoam CT board (polystyrene surfaced with 3/8 in. min concrete mortar), butted together.

COLD APPLICATION SYSTEMS

Class A

Base sheets and ply sheets may be adhered with hot asphalt (15-25 lb/sq) or Henry Cold Application Cements ("#203", "#403" or "#902"), applied at 1 to 2 gal/sq. unless otherwise specified; adhesive may be applied by brush, roller, notched squeegee, or spray equipment.

"#607" (33 lb) fiberglass base sheets are suitable alternates for the "#604" (25 lb, Type G2) base sheets specified below.

"#288 Desert Tan Elastomeric Roof Coating" is a suitable alternate to "#287 White Coating" specified below.

"#282 Desert Tan Elastomeric Roof Coating" is an acceptable alternate to "#280 White", is an acceptable alternate to "#100 ElastoMulsion®" and "#107 Asphalt Emulsion". All three products are interchangeable. Unless otherwise indicated the insulation may be mechanically fastened or adhered with "Gilsonite No. 601" at 4 gal/sq; the base and ply sheets are adhered with "Gilsonite No. 601" at 4 gal/sq.

"#280 White (cold climate formula)" may be used in lieu of "#280" in any applicable Classification.

Unless otherwise indicated, "Henry 280DC White Elastomeric Roof Coating" (must be applied at 3 gal./sq.), may be used in lieu of "#280 White" or "#299 White Elastomeric Roof Coating" in all applicable Classifications.

Unless otherwise indicated, "Henry 558 Aluminum Roof Coating" (must be applied at 1-1/2 gal./sq.), may be used in lieu of "#229 Aluminum Emulsion Roof Coating" in all applicable Classifications.

1. Deck: C-15/32 Incline: 1/2

Insulation (Optional): — Perlite or glass fiber, any thickness.

Base Sheet: — One layer "#604", 40 lb or inverted "#605", 80 lb fiberglass capsheet, mechanically fastened or spot adhered with Henry Cold Application Cement, 1 gal/sq or hot asphalt, 15 lb/sq.

Ply Sheet: — Two or more layers "#604", adhered with Henry Cold Application Cement, 2 gal/sq or hot asphalt, 25 lb/sq.

Protective coating: — "#107 Asphalt Emulsion", 9 gal/sq reinforced with 3/4 in. chopped glass fiber, 3 lb/sq, spray applied.

Reflective coating: — "#120 Premium Non-Fiberglass Aluminum Roof Coating", 1/2 gal/sq, "#229 Aluminum Emulsion Roof Coating", 1 gal/sq, "#280 White", 1 gal/sq or "#220 Alumin-Top® Roof Coating", 1-1/2 gal/sq.

2. Deck: C-15/32 Incline: 1/2

Base Sheet: — One layer "#604", 40 lb. or inverted "#605" fiberglass G3 mineral capsheet (72 lb), mechanically fastened or spot adhered with Henry Cold Application Cement, 1 gal/sq or hot asphalt 15 lb/sq.

Ply Sheet: — Two or more layers polyester fabric adhered with "#107 Asphalt Emulsion", 3-4 gal/sq.

Protective coating: — "#107 Asphalt Emulsion", 12 gal/sq reinforced with 3/4 in. chopped glass fiber, 4 lb/sq, spray applied.

Reflective coating: — "#120 Premium Non-Fiberglass Aluminum Roof Coating", 1/2 gal/sq, "#229 Aluminum Emulsion Roof Coating", 1 gal/sq., "#280 White", 1 gal/sq or "#220 Alumin-Top®", 1-1/2 gal/sq.

3. Deck: NC Incline: 1/2

Insulation (Optional): — Perlite, glass fiber, polyurethane, isocyanurate, isocyanurate/perlite, polyurethane/perlite or wood fiber, any thickness.

Base Sheet: — One layer "#604" or modified bitumen base sheet, mechanically fastened or spot adhered with "#902 Permanent Bond Adhesive (PBA®)", 1-1/2 to 2 gal/sq.

Ply Sheet (Optional): — One layer Type "#604", adhered with "#902 Permanent Bond Adhesive (PBA®)", 1-1/2 to 2 gal/sq.

Membrane: — "INTEC/FLEX FR 3" or "INTEC/FLEX FR-4.5", adhered with "#902 Permanent Bond Adhesive, (PBA®)", 1-1/2 to 2 gal/sq.

4. Deck: NC Incline: 1/2

Insulation (Optional): — Polyisocyanurate, 1-3 in. followed by wood fiber, hot mopped in place.

Base Sheet: — One layer "#604", 25 lb, mechanically fastened or spot adhered with Henry Cold Application Cement, 2-1/2 to 4 gal/sq.



Physical Properties

Appearance Fabric	Flash Point 212°F	Maximum VOS 0 calculated
Color Black	Maximum VOC 0 calculated	

Approvals and Certifications

Manufactured to exceed the requirements of ASTM D-3909 and Federal Specification SS-R-602D, Class 3.

UL listed for Class A and B fire rated roof coverings.

Consult Henry Representative for specific assembly ratings and requirements.

See Henry Specification Manual for detailed Roofing, Re-roofing, and Roof Maintenance & Restoration.



Description

HE606 - SBS 80# UNDERLAYMENT is a fire rated cap sheet manufactured to meet the needs of a quality built-up roofing system especially formulated for cold weather application. This cap sheet can be applied with hot mopping asphalt or cold process procedures.

This product is manufactured on tested fiberglass mat. The glass mat is impregnated and coated with a lightly modified rubberized asphalt, filled with fire retardant fillers, and surfaced with mineral/ceramic color coated granules for ultraviolet protection and weatherability.

Usage

HE606 - SBS 80# UNDERLAYMENT is used as a Fire Rated Cap Sheet to meet the needs of a quality built-up roof.

Coverage

SIZES:

- Roll length: Approximately 33'
- Roll width: Approximately 39.4"
- Roll weight: Approximately 78 lbs
- Rolls Per Pallet: 25

Surface Preparation

The substrate surface must be smooth enough to prevent puncturing of the buffer layer under normal roof traffic.

Application

Application details as specified for each project must be followed as they will vary to suit project conditions. Cut the rolls into lengths suitable for application and laid flat to eliminate curl. Unless otherwise specified, this buffer layer is laid mineral side down with 2" side laps and 4" end laps and nailed to nailable decks or spot-adhered, cold or hot method, to non-nailable decks and certain insulation boards.

Cleanup

Asphalt can be removed by use of mineral spirits, paint remover, or kerosene. Use caution when handling solvents.

Caution

WARNING: This product contains detectable amounts of chemicals known to the State of California to cause cancer, or birth defects or other reproductive harm.

EMPLOYERS should obtain a copy of the **Material Safety Data Sheet (MSDS)** from your supplier or directly from Henry at the toll free number or website below.

Product Sizes

39 3/8IN X 33FT ROLL (78 lb)

Limited 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 be defective within 12 months of purchase, provided it has been applied in accordance with our written directions for uses we recommended 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 FOR A PARTICULAR PURPOSE. MANUFACTURER SHALL HAVE NO LIABILITY OF ANY KIND BEYOND PRODUCT REPLACEMENT, INCLUDING FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES RESULTING FROM ANY DEFECTS OR ANY DELAYS CAUSED BY REPLACEMENT OR OTHERWISE. THIS LIMITED WARRANTY PROVIDES THE PURCHASER'S EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT.**



Physical Properties

Appearance Fabric	Flash Point 500°F	Maximum VOS 0 calculated
Color Black	Maximum VOC 0 calculated	

Approvals and Certifications

Manufactured to meet the requirements of ASTM D-4601, Type II and Fed. Spec. SS-R-602B, Type III.

FM approved. Subject to the conditions of approval as a roof coating when installed as described in the current edition of the FMRC approval guide.

UL listed for Class A and B fire rated roof coverings.

Consult Henry Representative for specific assembly ratings and requirements.

(800) 486-1278

See Henry Specification Manual for detailed Roofing, Reroofing, and Roof Maintenance & Restoration.



Description

HE604 - FIBERGLASS BASE SHEET is a heavy duty asphalt coated sheet for use in built-up roofing systems, for ply sheets, and base sheets. The sheet has a core of heavyweight non-woven fiberglass mat making it particularly suitable for use in fire retardant membrane assemblies. It may be applied with cold application asphalt cement, such as **Henry # 203, # 403, # 902, or # 903**, hot asphalt, or modified (SBS) asphalt. Unlike saturated felt or lightweight fiberglass ply sheet, **HE604 - FIBERGLASS BASE SHEET** has a coating layer of asphalt on each side that reacts with the solvents in **Henry Cold Application Cement** to provide excellent adhesion without decrease in tensile strength. It has lay lines appropriate for normal roofing side laps. The surface of the sheet is lightly sprinkled with sand to prevent sticking in the roll.

Usage

HE604 - FIBERGLASS BASE SHEET is a coated asphalt sheet for use in built-up roofing systems, for ply sheets, and base sheets.

Coverage

Sizes

- Roll Length-----Approximately 108' (32.9m)
- Roll Width-----Approximately 36" (0.92m)
- Rolls Per Pallet-----25
- Approximate Roll Weight-----75 lbs (34 kg/ sq. m)
- Net Coverage-----Approximately 3 squares (27.9 sq. m)

Important Physical Properties

Tensile strength @ 0° F.

- MD 65 lbf/in
- CD 55 lbf/in

Top Surface-----Sanded

Bottom Surface-----Sanded

Surface Preparation

Follow the details as specified for each particular roof system or project as they may vary.

Application

Application details as specified for each particular roof system or project are to be followed as they may vary. Prior to application cut the rolls into lengths suitable for installation and lay flat to eliminate curl. Unless otherwise specified, the base ply is laid with 2" side laps and 4" end laps and nailed, spot-adhered or fully adhered with cold application cement or hot asphalt. Subsequently plies are completely adhered, cold or hot method.

Cleanup

Asphalt can be removed by use of mineral spirits, paint remover, or kerosene. Use caution when handling solvents.

Caution

CAUTION:

The rolls must be stored off the ground and protected from moisture prior to application. They shall be stored and shipped in a vertical position.

WARNING: This product contains detectable amounts of chemicals known to the State of California to cause cancer, or birth defects, or other reproductive harm. Contains sand (crystalline silica).

WARNING: This product contains detectable amounts of chemicals known to the State of California to cause cancer, or birth defects or other reproductive harm.

EMPLOYERS should obtain a copy of the **Material Safety Data Sheet (MSDS)** from your supplier or directly from Henry at the toll free number or website below.

Product Sizes

36IN X 108FT ROLL (75 lb)

Limited 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 be defective within 12 months of purchase, provided it has been applied in accordance with our written directions for uses we recommended 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 FOR A PARTICULAR PURPOSE. MANUFACTURER SHALL HAVE NO LIABILITY OF ANY KIND BEYOND PRODUCT REPLACEMENT, INCLUDING FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES RESULTING FROM ANY DEFECTS OR ANY DELAYS CAUSED BY REPLACEMENT OR OTHERWISE. THIS LIMITED WARRANTY PROVIDES THE PURCHASER'S EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT.**



Last Rev Date: 10/18/2013

Physical Properties

Appearance Black liquid	Consistency @ 77° F Spray grade	Maximum VOS 2.08 lbs/gal
Asphalt By Weight 52% min.	Flash Point 105°F (ASTM D-93)	Solids By Weight 75% (ASTM D-4479)
Base Selected asphalts	Lap Peel Strength 48.9 lbf/in. min. (ASTM D-3019)	Specific Gravity @ 77° F (25°C) 1.08
Color Black	Maximum VOC 250 g/l (ASTM D-3960)	Weight Per Gallon 9.0-9.2 lbs (ASTM D-1475)

Approvals and Certifications

Manufactured to meet the requirements of ASTM D-3019, Type III, Grade I and Dade County Compliant.

UL listed for Class A and B fire rated roof coverings.

FM approved. Subject to the conditions of approval as a roof coating when intalled as described in the current edition of the FMRC approval guide.

Consult Henry Representative for specific assembly ratings and requirements.

See Henry Specification Manual for detailed Roofing, Reroofing, and Roof Maintenance & Restoration.



Description

HE902 - PERMANENT BOND ADHESIVE is a premium, modified, and rubberized, Cold-AP® waterproof roofing adhesive. It is squeegee or spray grade, and is made from asphalt and solvents formulated to bond layers of asphalt coated base sheets in built-up roofing applications. As a replacement for hot asphalt in BUR, **HE902 - PERMANENT BOND ADHESIVE** provides the following benefits:

- **SAFE** - Eliminates burn and fire hazards of hot asphalt
- **STRONG** - Greater cohesive strength for a reliable roof
- **FLEXIBLE** - Greater cold weather flexibility than hot asphalt
- **EFFICIENT** - Cold-AP® requires less labor than hot asphalt
- **APPROVED** - U.L. Class A in a variety of roof systems

Usage

Use for BUR, bonding asphalt coated fiberglass base sheets, modified base and cap sheets, polyester, conventional mineral surfaced cap sheets and bonding gravel or granule surfacing.

Coverage

Apply uniformly between layers of roofing at the rate of 1 1/2 to 2 gallons per 100 sq. ft. DO NOT OVER APPLY. For spot application of the first layer to smooth, non-nailable surfaces, use 1 gallon per 100 square feet. For bonding gravel use 5 gallons per 100 square feet.

Surface Preparation

All surfaces to be coated must be clean, dry, smooth and even. Surface must be free from oil, grease, rust, scale, loose paint, dirt, and all foreign matter that would interfere with a good bond. NOTE: A roof membrane in poor condition, moisture in the existing roof or local building codes may require tearoff of an old roof.

Application

Stir adhesive to uniform consistency before using. Do not thin. It is suitable for spray application with most roof coating pumps and spray guns - air-atomized or airless type. The pump must be able to deliver at least 800 to 1000 psi at the spray gun tip. The tip must be .100 size with 80° fan "ten eighty" tip. The hose diameter must be at least 3/4" I.D. with the last 50' being 1/2" I.D. For hose lengths longer than 200', 1" I.D. is recommended. The product must be at least 70°F (21°C) at the tip for spray applications. Apply adhesive evenly and uniformly with full coverage between each layer. After adhesive is placed, a few minutes of "open time" will accelerate curing time. Roofing may usually be placed up to 1/2 hour after adhesive has been applied. While adhesive is tacky, press roofing into adhesive by brooming. Roll seams with a weighted roller several hours later. Adhesion is improved by brushing underside of sheets at laps and walls with a thin film of adhesive. Remove excess adhesive from exposed surfaces. On walls, apply adhesive to both surfaces and allow approximately 1/2 hour open time. On slopes over 1" in 12", blind nail 2nd and 3rd layer 1" down from upper edge every 12".

Top Coating: Allow one week of warm, dry weather before surfacing BUR with emulsion and a reflective coating.

Built-Up Roofing: BUR is a demanding and exacting job for the roofing professional - it is not recommended for the Do-It-Yourselfer. As it is impossible to cover all the details of built-up roofing here, follow the directions of the roofing material manufacturer and follow NRCA guidelines for details and terminations.

Precautions

Not all APP torch down membranes are alike, and as such, application with APP membranes may not yield satisfactory results. Please contact the Henry Technical Service Department and the APP membrane manufacturer before proceeding. DO NOT USE with #15 or #30 saturated felts. DO NOT USE with solvent sensitive insulation, rubber or PVC sheet roofing. Do not heat container except with a belt-type electric pail or drum heater limited by thermostat so as not to exceed 80°F (27°C). Weather should be at least 65°F (18°C), dry and clear, with no threat of rain for 48 hours. CLOSE AIR INTAKES ON ROOF UNTIL SOLVENTS DISSIPATE! Do not store at temperatures greater than 110°F (43°C). When transporting this product, be sure the pail is secured and the lid is tight. Do not allow pail to tumble, as this may loosen the lid and allow leakage to occur. Do not use this product as a coating, or to attempt to seal gravel, rubber, or PVC sheet roofing, or shingles of any kind.

NOTE: Asphalt-based coatings form a water soluble residue as they weather. In areas without regular rainfall, the roof should be hosed off occasionally to prevent build up and discoloration (removable with soap and water). Areas that pond water may accumulate more asphalt residue.

Cleanup

Clean tools with **Henry Scrubbers™ Hand & Tool Cleaning Towels** or kerosene, paint thinner or mineral spirits. Clean hands with **Henry Scrubbers™** or with waterless hand cleaner.

Caution

WARNING! COMBUSTIBLE! Contains petroleum distillate. Keep away from heat and flame. Do not heat container or store at temperatures greater than 110° F (43°C). **CLOSE AIR INTAKES** on roof until solvents dissipate. Contains volatile solvents that might contaminate potable water. Close container after use. **DANGER! HARMFUL OR FATAL IF SWALLOWED!** If swallowed, do not induce vomiting. CALL A PHYSICIAN IMMEDIATELY! Use protective measures to avoid contact with eyes and skin. In case of eye contact, open eyelids wide and flush immediately with plenty of water for at least 15 minutes. In case of accidental injection by spray equipment, GET MEDICAL ATTENTION IMMEDIATELY! **USE ONLY WITH ADEQUATE VENTILATION!** Avoid breathing of vapor. If you experience eye watering, headaches, or dizziness, leave area immediately or increase fresh air or wear respiratory protection (NIOSH/MSHA TC 23C or equivalent). Repeated and prolonged occupational overexposure to solvent vapor may cause permanent brain and nervous system damage, and may cause liver or kidney damage.

FOR EXTERIOR USE ONLY.

KEEP OUT OF REACH OF CHILDREN!

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

Employers should obtain a copy of the **Material Safety Data Sheet (MSDS)** from your supplier or directly from Henry at the toll free number or website below.

Product Sizes

BULK (GALLONS) (10 lb)

5 GALLON (47 lb)

55 GAL/205 L (513.7 lb)

Limited 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 be defective within 12 months of purchase, provided it has been applied in accordance with our written directions for uses we recommended 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 FOR A PARTICULAR PURPOSE. MANUFACTURER SHALL HAVE NO LIABILITY OF ANY KIND BEYOND PRODUCT REPLACEMENT, INCLUDING FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES RESULTING FROM ANY DEFECTS OR ANY DELAYS CAUSED BY REPLACEMENT OR OTHERWISE. THIS LIMITED WARRANTY PROVIDES THE PURCHASER'S EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT.**



Last Rev Date: 08/24/2015

Physical Properties

Appearance Black liquid	Consistency @ 77° F Thixotropic liquid	Maximum VOC 0 calculated
Application Temperature 50° F and rising	Flammability Non-flammable when wet	Solids By Volume 40 - 50%
Base Asphalt, bentonite clay emulsion	Flash Point >212° F	Solids By Weight 47 - 53% (ASTM D-2939)
Brookfield Viscosity 8000-15,000 cPs (ASTM D-2196)	Freezability Keep from freezing	Weight Per Gallon 8.5 - 9.1 lbs/gal
Color Black		

Approvals and Certifications

Exceeds the requirements of ASTM D-1227-95, Type III, Class I, Dade County Compliant.

UL listed for Class A and B fire rated roof coverings.

FM approved. Subject to the conditions of approval as a roof coating when installed as described in the current edition of the FMRC approval guide.

Consult Henry Representative for specific assembly ratings and requirements. (800) 486-1278

See Henry Specification Manual for detailed Roofing, Reroofing, and Roof Maintenance & Restoration.



Description

HE107 - ASPHALT EMULSION SEALER AND DAMPPROOFER is a premium, versatile protective coating. Non-flammable while wet, corrosion resistant and waterproof when dry. Crack and "alligator" resistant.

Features:

- For dampproofing exterior below-grade foundations and walls
- Protects roofing materials, roofing and masonry
- Base coat for energy saving reflective coatings
- Crack and "alligator" resistant
- Corrosion resistant and waterproof
- Non-fibred

Coverage

Approximately 100 square feet per 3 - 4 gallons (9 m sq. per 11-15 L) when applied as one coat.

Surface Preparation

Clean: Surface must be clean, dry and sound. Remove rust with wire brush. Sweep or rinse to clear dust, dirt, and residues. Scrub areas where water ponds with detergent and water, and rinse well.

Repair: Inspect area to be coated. This product is not designed to seal leaks. Repair all cracks, splits and holes by layering **Henry 181, 183, 195, or 196 Fabric** between two heavy coats of **Henry 204® Plastic Roof Cement** or **Henry 209 Extreme Wet Patch® Roof Leak Repair** and allow to cure for 30 days.

Application

For tighter bond, surface should be damp, but free of ponding water. Stir coating thoroughly and apply with heavy-duty sprayer, deep-pile paint roller or roofing brush, keeping strokes in one direction. For hard-to-clean surfaces such as built-up roof with gravel removed or priming concrete and masonry, thin product with 20% water.

Recoat: For best results, apply a second coat as soon as the first is thoroughly dry. Apply the second coat at right angles to the first. To renew smooth-surface roofs, reinforce valleys and seal flashings, embed a layer of polyester fabric without wrinkles or buckles into the wet base coat and "broom in" immediately, then apply a 2nd coat when first is dry.

Optional: Apply a reflective coating as soon as the top coat has cured.

MONOLITHIC™: For a reinforced waterproof surface, use approved glass chopper spray gun to cover prepared surface with 9 gallons per 100 sq. ft. (34 L per 9 m sq.) of product, evenly blended with 3 lbs. per 100 sq. ft. (1.4 kg per 9mm) of 3/4" **Henry 189 Fiberglass Roving**.

EXTERIOR, BELOW GRADE, DENSE SURFACES: For dense concrete not subject to hydrostatic pressure, 1 coat, about 1/16" (1.6mm) thickness is usually adequate. If applying by spray or for severe conditions, 2 coats are preferred. Fill all crevices and grooves. Make sure coating is continuous with no breaks or pinholes. Coat over exposed top and outside footing edges. Spread around all joints, grooves, and slots and into all chases, corners, reveals, and soffits. Bring coating up to finished grade.

EXTERIOR, BELOW GRADE, POROUS SURFACES: For porous surfaces such as concrete block, 3 alternate techniques are equally effective; base your choice on local preference and available equipment.

A) Two Coat System: Apply a base coat of **HE107**, cut 20% by volume with clean water, over entire prepared surface. Apply base coat at a rate of 1.5 gallons per 100 square feet. Allow base coat to dry tacky to touch and apply 1 coat of **HE107** as described under Dense Surfaces. Allow to set 24 - 48 hours before backfilling as described previously.

B) Membrane System: For severe conditions or added protection, apply a base coat followed by a coat of **HE107** as described above. Within 2 hours, apply **Henry 183 Glass Fabric** membrane over all surfaces of coating, overlapping edges at least 3" to 4". Embed glass fabric into coating without wrinkles or buckles. Within 24 hours, apply an additional coat of **HE107**; allow to set at least 24 - 48 hours and backfill as previously described.

C) Parge Coat System: Apply a parge coat of cement mortar to the block wall, carrying the parge coat from the bottom of the footings to grade level and forming a cove at the junction of the wall and footing. Allow to cure. Apply 1 - 2 coats of product as described under Dense Surfaces. Allow to set and then backfill as previously described.

INTERIOR, ABOVE GRADE, WEATHER RESISTIVE BARRIER: For exterior face of interior walls in cavity wall construction. Compatible with masonry, concrete, CMU and gypsum sheathing. Apply 1 coat, carrying coating in and around all joints, grooves and slots, following all reveals and soffits of windows and continuing 12" (30.5 cm) out on adjoining partitions and soffits. Allow to set. If walls are to receive hard wall plaster, use furring strips or metal lath.

Precautions

DO NOT APPLY IF RAIN OR TEMPERATURES BELOW 50°F (10°C) ARE EXPECTED WITHIN 24 HOURS. Do not heat container or store at temperatures greater than 110°F (43°C). When transporting, make sure the pail is secured and the lid is tight to prevent spills. DO NOT ALLOW COATING IN PAIL TO FREEZE. Not recommended over gravel, plywood, rubber, or PVC sheet roofing or shingles of any kind. Typical age limit for roofs to be coated is 7 to 10 years, but varies with roof condition. Application over hot applied asphalt may not prevent alligatoring.

Drying: Usually 6-24 hours in hot and dry weather conditions. Drying will be slower, 2 to 7 days in cool, damp weather. Allow to dry completely between coats. Coating becomes waterproof only after drying thoroughly.

Cleanup

Clean wet coating from hands and tools with **Henry Scrubbers™ Hand & Tool Cleaning Towels** or soap and water. If dry, clean tools with kerosene, paint thinner or mineral spirits.

Caution

WARNING: Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

Prevention: Wash thoroughly after handling. Avoid breathing mists and sprays. Use only outdoors or in a well-ventilated area. Wear protective gloves and eye protection.

IF ON SKIN: Wash with plenty of soap and water. If skin irritation 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. Call a POISON CENTER or doctor if you feel unwell.

Storage: Store in a well-ventilated place. Store locked up.

Disposal: Dispose of contents/containers in accordance with local/regional/national/international regulations.

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

FOR EXTERIOR USE ONLY.

NOT FOR USE ON DRIVEWAYS.

KEEP FROM FREEZING.

KEEP OUT OF REACH OF CHILDREN.

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

Note: Asphalt-based coatings form a water soluble residue as they weather. In areas without regular rainfall, the roof should be hosed off occasionally to prevent build up and discoloration (removable with soap and water). Areas that pond water may accumulate more asphalt residue.

Product Sizes

BULK (GALLONS) (8.58 lb)

4KG (9.48 lb)

GALLON (9.5 lb)

5 GAL/18.93 L (47 lb)

5 GALLON (47 lb)

55 GAL/205 L (499 lb)

275 GALLON (2365 lb)

Limited 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 be defective within 12 months of purchase, provided it has been applied in accordance with our written directions for uses we recommended 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 OR INCIDENTAL DAMAGES RESULTING FROM ANY DEFECTS OR ANY DELAYS CAUSED BY REPLACEMENT OR OTHERWISE. THIS LIMITED WARRANTY PROVIDES THE PURCHASER'S EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT.**

This limited warranty is in addition to and supplemented by the product warranty located on our website at: www.henry.com/warranty which also applies to this product.



Physical Properties

Appearance Ropelike strands	Fiber Diameter 6 microns, minimum	Maximum VOC 0 g/l
Color White	Flash Point >212°F	Maximum VOS 0 lbs/gal

Description

HE189 - FIBERGLASS ROVING is used with the **Monolithic™ System** for roofing and waterproofing. **HE189 - FIBERGLASS ROVING** is continuous filament glass fiber consisting of approximately sixty strands held together loosely in rope form by a special sizing. It is designed for spray application using a glass chopper spray gun to provide reinforcement for asphalt emulsion coating. The emulsion and glass fibers chopped to a typical length of 3/4" are spray applied simultaneously providing a reinforced waterproof monolithic surfacing. When applied at the normal rate of 9 gallons of **# 107 Asphalt Emulsion** and 3 pounds of glass fiber, the tensile strength of the film is increased four times that of an unreinforced film. The reinforcement also enables the application of more than double the film thickness without shrinkage cracks.

Usage

HE189 - FIBERGLASS ROVING is an essential component in the **Monolithic™ System**.

Coverage

Normal application rate is 9 gallons of **# 107 Asphalt Emulsion** and 3 pound of glass fiber per 100 square feet.

Surface Preparation

Follow the directions on surface preparation for **# 107 Asphalt Emulsion** application.

Application

The only method of application is through an approved air operated glass chopper spray gun designed to cut the roving into uniform lengths; 3/4" is standard but shorter lengths are recommended on irregular surfaces to minimize exposed fibers.

During application, the roving coil should be kept within ten feet from applicator. It may be carried by the applicator in back-pack or in suitable cart tended by an assistant.

Cleanup

Wash hands with soap and water when finished.

Caution

Use appropriate gloves and other protective clothing when handling this product.

EMPLOYERS should obtain a copy of the **Material Safety Data Sheet (MSDS)** from your supplier or directly from Henry at the toll free number or website below.

Product Sizes

1 LB

Limited 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 be defective within 12 months of purchase, provided it has been applied in

accordance with our written directions for uses we recommended 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 FOR A PARTICULAR PURPOSE. MANUFACTURER SHALL HAVE NO LIABILITY OF ANY KIND BEYOND PRODUCT REPLACEMENT, INCLUDING FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES RESULTING FROM ANY DEFECTS OR ANY DELAYS CAUSED BY REPLACEMENT OR OTHERWISE. THIS LIMITED WARRANTY PROVIDES THE PURCHASER'S EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT.



TECHNICAL DATA SHEET
Pro-Grade® 294
Base Coat & Sealer

Physical Property	Typical Value	Test Method
Appearance	Gray, fluid	-
Elongation, Initial	>400%	ASTM D2370
Flash Point	Non-flammable	-
Solids Content by Volume	51-55%	ASTM D2697
Tensile Strength, Initial	>150 psi	ASTM D2370
Viscosity (Brookfield)	12,000-20,000 cPs	ASTM D2196
VOC Content (maximum)	50 g/l	EPA Method 24
Weight per Gallon	10.5-11.3 lbs.	ASTM D1475

Approvals and Certifications

- FM Certified
- Florida Approved
- Miami-Dade County Approved
- UL Certified

Description

Pro-Grade® 294 Base Coat & Sealer is a one-component, water-based elastomeric base coating and sealer that is highly resistant to disbonding and prohibits passage of asphaltic oils from existing asphalt roof materials.

Features

- Excellent stain-blocking performance for silicone roof surface coatings
- Good performance in ponding water conditions
- Superior in-service flexibility at low temperatures
- Solvent-free and VOC compliant in all jurisdictions
- Easy application with roller, brush or commercial spray equipment

Usage

Pro-Grade® 294 is used as a base coat for **Pro-Grade® 280 Elastomeric White Roof Coating** and stain-blocking sealer for **Pro-Grade® 988 Silicone Roof Coating**. It may be applied over previously coated roofs, smooth asphalt built-up roofing (BUR), modified bitumen (MB), aged EPDM, Hypalon® and PVC roofs, metal roofs, concrete roofs and stucco and masonry parapet walls.

Application

Clean: Before coating the roof, use a pressure washer with greater than 2,000 psi to clean the roof with a non-filming detergent, such as TSP or TSP substitute. For aged EPDM single ply membrane, apply **Henry® RubberKote® 825 Rinseable Primer** to clean and enhance adhesion of coatings. Use appropriate pressure and take caution not to inject water into the roofing substrate when power washing. 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 mildew or mold. Remove rust on metal with a wire brush, sandblast or mechanically abrade until substrate is smooth and rust free. Rinse the roof to ensure it is free of all detergent or anything else that could affect adhesion. Using a leaf blower or broom, clear any remaining dust, dirt, debris or other foreign material that may prevent proper adhesion.

Pro-Grade® 294 Base Coat & Sealer

Repair: Inspect area to be coated. On metal roofs, remove old and damaged mastic repairs at laps, seams and fasteners. Repair all defects including cracks, splits, holes, blisters, deteriorated flashings, cracked metal edging and any other defects affecting the water tightness of the roofing systems. Do this by layering **Henry® 195 Polyester Fabric**, **Henry® 196 Polyester Fabric**, or **Henry® 296 ElastoTape Repair Fabric** between two heavy coats of **Henry® 289 White Roofing Sealant** and allow to form a skin and set up – from 2 to 24 hours, depending on depth of fill and weather conditions – before coating. Tighten or replace fasteners on metal roofs as necessary. Seal fasteners and seams with **Henry® 289** and allow to cure. Ensure all roof drains and gutters are clean and clear, and cut back any vegetation that is growing above the roof which may cause debris to fall on the roof and clog drains and gutters in the future. All roof areas must promote positive drainage. Contact Henry® Product Support for water ponding areas and other questions regarding repair of existing roof.

NOTE: Existing roof membrane, insulation and all substrates must be sound, dry, clean and free of oil, grease, dirt, excess mortar, frost, laitance, loose and flaking particles, or other contaminants. All leaks must be sealed prior to application of coating. 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 heat container or store at temperatures greater than 120 °F. DO NOT ALLOW COATING IN PAIL TO FREEZE. Not for use over plywood, walking decks, gravel, uncoated polyurethane foam, TPO roofing, Kynar® / Hylar® coated metal roofs, shingles of any kind, or old roofs that are too dry and brittle to withstand the shrinkage stresses that occur after the application of any coating.

Apply: Choose a warm, sunny day – the roof surface should be warm to the touch. If the roof surface is too hot to touch (140 °F+), it is too hot to coat. Apply to a clean dry surface. Do not dilute. Stir coating to a uniform consistency, and apply by heavy-duty spray or deep-pile paint roller. When applied by roller, keep strokes in one direction. For newly-applied asphalt emulsion, apply coating as soon as it has cured, normally 1–7 days. Please consult Henry® Product Support for specific questions regarding application of this product.

Coverage

Minimum coating coverage is 1.5 gallons/square when used as a base coat prior to application of **Pro-Grade® 280**. Minimum coating coverage is 1.25 gallons/square when sealing granulated cap sheets and 1.0 gallons/square for sealing smooth cap sheet/BUR prior to applying **Pro-Grade® 988**. Application rates should be adjusted to meet each particular roof's specified requirements. Coverage rates are theoretical and do not take into account material loss due to spraying, surface texture, etc. Thicker dry film results in better performance and longer coating life.

For Henry® Material Plus and Gold Seal Warranty, refer to the appropriate Henry® Restoration System (HRS) Application Guide or Guide Specifications for application and coverage rate requirements.

Clean-up

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

Packaging

5 Gallon, 55 Gallon, 275 Gallon

Color

Gray

For more information, visit www.henry.com or for technical assistance call us at 800-486-1278. For more information on Henry's® product warranty and liability disclaimer please visit www.henry.com/warranty. Refer to the Safety Data Sheet prior to using this product. The Safety Data Sheet is available at www.henry.com or by emailing Henry® Product Support at productsupport@henry.com or by calling 800-486-1278.

Henry, Henry RubberKote and Pro-Grade are registered trademarks of Henry Company
Hypalon is a registered trademark of DuPont Performance Elastomers LLC
Kynar is a registered trademark of Arkema
Hylar is a registered trademark of Solvay

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. Henry® Company 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.

Physical Properties

Accelerated Weathering 1000 hrs Pass - No cracking or checking (ASTM D-4798)	Fungi resistance, rating 0 (ASTM G-21)	Tensile Strength Film (Initial) >240 psi (ASTM D-2370)
Appearance Smooth Paint Like	Maximum VOC 25 g/l	Thermal Emittance 0.90 (ASTM C-1371)
Application Temperature 50° F and rising	Near Normal Emittance (LEED) 0.94 (ASTM E-408)	Viscosity 115 - 130 KU (ASTM D-562)
Brookfield Viscosity 30,000-40,000 cPs (ASTM D-2196)	pH >9.0	Water Swelling, Mass% <11.0 (ASTM D-471)
Color White	Solar Reflectance Index 112 (ASTM E-1980)	Water Vapor Permeance <7.0 (ASTM E-96)
Elongation (Initial) >250% (ASTM D-2370)	Solar Reflectance, Initial 0.88 (ASTM C-1549)	Weight Per Gallon 11.0-11.3 lbs
Elongation after 1000 hr. WOM >230% (ASTM D-2370)	Solids By Volume >52.0% (ASTM D-2697)	Wet Adhesion to Concrete Substrate, pli >5.8 (ASTM D-794/D-903)
Flash Point Non-Flammable	Solids By Weight >65.0%	Wet Adhesion to Galvanized Metal, pli >10.5 (ASTM D-794/D-903)
Freezability Do not freeze	Tear Resistance >80 lbf/in (ASTM D-624)	Wet Adhesion to SBS Mod. Bitumen, pli >7.5 (ASTM D-794/D-903)

Approvals and Certifications

Meets ASTM D-6083, Energy Star, Florida Product Approval, Miami-Dade County Product Approval, UL, and CEC Title 24. It is also CRRC rated and can contribute to LEED certification credits.

Description

HE280DC - WHITE ELASTOMERIC ROOF COATING is a water-based 100% acrylic latex coating. It is designed to reduce surface temperature and penetration of the sun's rays, which helps lower roof and interior temperatures as well as energy costs. Properly applied, it is highly resistant to disbonding, chalking, mildew, fungi, and discoloration.

Usage

Previously coated acrylic and aluminum roofs, asphalt emulsion, aged asphalt, including Built-Up Roofing (BUR) and Modified Bitumen (MB), aged EPDM and PVC roofs, metal roofs, concrete roofs, and recoating acrylic coated Spray Polyurethane Foam (SPF) roofs.

Systems Installations: Refer to appropriate Guide Specifications for required coverage rates and warranty guidelines.

Coverage

Smooth Surfaces: Approximately 100 sq. ft. per 1 gallon, applied as two coats. For 20 dry mils, approximately 100 sq. ft. per 1 1/4 gallons, applied as two coats.

Rough Surfaces: Approximately 100 sq. ft. per 2 to 3 gallons depending on porosity and roughness of surface, applied as two coats.

Surface Preparation

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 roofing 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 mildew or mold. Remove rust on metal with a wire brush, sandblast, or mechanically abrade. Give the roof a final rinse to ensure it is free of all detergent or anything else that could affect adhesion. Using a leaf blower or broom, clear any remaining dust, dirt, debris, and other foreign material that may prevent proper adhesion.

Repair: Inspect area to be coated. Repair all cracks, splits, and holes by layering **Henry 195 or 196 Polyester Fabric**, or **Henry 296 ElastoTape® Repair Fabric** between two heavy coats of **Henry 289 White Roofing Sealant - Elastomeric** and allow to form a skin and set up - from 2 to 24 hours, depending on depth of fill and weather conditions - before coating. Tighten or replace fasteners on metal roofs as necessary. Seal fasteners and seams with **Henry 289 White Roofing Sealant - Elastomeric** and allow to cure. Ensure all roof drains and gutters are clean and clear, and cut back any vegetation that is growing above the roof which may cause debris to fall on the roof and clog drains and gutters in the future. All roof areas must promote positive drainage. Contact Henry Product Support for water ponding areas and other questions regarding repair of existing roof.

Application

Apply: Seal leaks prior to application. Apply on a sunny day when roof surface is warm to the touch. Surface must be dry. If the roof surface is too hot to touch (>140°F/60°C), it is too hot to coat. Stir coating thoroughly and apply with heavy-duty sprayer or a deep-pile paint roller with wood handle and metal threads, keeping strokes in one direction. For newly-applied asphalt emulsion, proceed as soon as it has cured, normally 1-7 days. Please consult Henry Product Support for specific questions regarding application of this product.

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

Precautions

DO NOT THIN. DO NOT APPLY WHEN AIR TEMPERATURE IS BELOW 50°F (10°C), OR IF THERE IS A THREAT OF RAIN, FOG, DEW, OR TEMPERATURES BELOW 50°F (10°C) WITHIN 48-72 HOURS. Do not heat container or store at temperatures greater than 120°F (49°C). When transporting, make sure the pail is secured and the lid is tight to prevent spills. **DO NOT ALLOW COATING IN PAIL TO FREEZE.** This coating is not recommended over plywood, walking decks, gravel, uncoated polyurethane foam, TPO roofing, shingles of any kind, or old roofs that are too dry and brittle to withstand the shrinkage stresses that occur after the application of any coating. Do not apply to wet or saturated roofs. Wear sunglasses when applying in the sun.

Cleanup

Before coating dries, clean hands, 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.

Caution

Warning: Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

Prevention: Wash thoroughly after handling. Avoid breathing mists and sprays. Use only outdoors or in a well-ventilated area. Wear protective gloves and eye protection.

Response: IF ON SKIN: Wash with plenty of soap and water. If skin irritation 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. Call a POISON CENTER or doctor if you feel unwell.

Storage: Store in a well-ventilated place. Store locked up.

Disposal: Dispose of contents/containers in accordance with local/regional/national/international regulations.

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.

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

Product Sizes

55 GAL/205 L (666 lb)

5 GALLON (1368 lb)

275 GALLON (3044 lb)

Limited Warranty

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; therefore, Henry Company cannot guarantee results of the application of the coating including, but not limited to: appearance, watertightness, and suitability of the substrate. The substrate to be coated must be structurally sound and have reasonable life expectancy prior to being coated. 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 recommended a suitable for this product. Proof of purchase must be provided. This warranty is void if the coating is coated over, patched, painted, or covered in any way with any product other than this coating or approved products. **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 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 ALL CONTAINERS OR PACKAGES OF PRODUCT PURCHASED FOR A FULL REFUND (PROVIDED THE CONTAINERS OR PACKAGING IS UNOPENED AND LESS SHIPPING CHARGES IF ANY) WITHIN 30-DAYS OF PURCHASE. 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. For further details of Henry's product warranty, see our website at www.henry.com/warranty.



Last Rev Date: 07/11/2014

Physical Properties

Appearance Liquid	Heat Resistance No sag (ASTM D-2939)	Thermal Emittance, Initial 0.55
Brookfield Viscosity 7000 cPs, 20 RPM @ 77° F (ASTM D-2939)	Maximum VOC 50 g/l	Viscosity 5000 - 8000 20rpm 77°F, cPs
Color Silver	Solar Reflectance, Initial 0.51 (ASTM C-1549)	Water By Volume 72.8%
Flash Point 212° F (ASTM D-2939)	Solids By Weight 37.0% (ASTM D-2939)	Water By Weight 64.6%
Flexibility (Low Temperature) Pass (ASTM D-2939)	Specific Gravity @ 77° F (25°C) 1.11	Weight Per Gallon 9.1-9.5 lbs (ASTM D-2939)
Freezability Do not freeze	SRI, Initial 47	

Approvals and Certifications

Manufactured to meet the requirements of ASTM D-6848. UL Classified and Fire Rated. Contact Henry Technical Service Dept. for further details.



Description

HE558 - AQUA-BRITE ALUMINUM ROOF COATING, a professional's product is designed to add years of service and reflectivity to a roof surface. **HE558 - AQUA-BRITE ALUMINUM ROOF COATING** is a combination of premium aluminum flakes suspended in emulsified asphalt providing outstanding weathering resistance and reflectance. This product reduces surface temperature and penetration of the sun's rays to the roof surface thereby retarding deterioration of that surface. It helps reduce interior temperature and protects the roof and roofing membrane by reducing heat absorption, asphalt oxidation, and rapid thermal dimensional changes. Meets SCAQMD standards. Replaces products formerly marketed as **ProGrade #818 AquaBrite** and **Henry #229 Aluminum Emulsion**.

Usage

HE558 - AQUA-BRITE ALUMINUM ROOF COATING can be used as a reflective coating for smooth surfaced built-up roofing and modified bitumen membranes. The following types of roof systems can also be coated when they are properly prepared: smooth surfaced asphalt roofing, weathered asphalt built-up roofing, and weathered galvanized metal.

Coverage

Coverage is 1.5 gal. per 100 sq. ft. on smooth surfaces. Coverage varies with surface texture.

Surface Preparation

Surface must be clean and in good repair. Carefully inspect area to be coated, including around pipes, chimneys, equipment, roof edges, and walls. Repair all cracks, breaks, splits, and holes by embedding polyester fabric or open mesh glass fabric between 2 heavy coats of **Henry #204 Plastic Roof Cement**, **Henry #505 Flashmaster™** or **Henry #289 White Roofing Sealant** applied over and at least 2 inches beyond repair. **Henry # 289 White Roofing Sealant** can usually be coated within 24 hours. Use **Henry #209 ElastoMastic®** on all metal roofs. Allow mastic to cure 30 days before coating to avoid discoloration. Seal leaks before coating! Solvent-based roof coatings and newly applied hot asphalt must be allowed to cure a minimum of 3 months prior to coating. Wire brush all rusted metal. Remove all debris, loose gravel, and dirt from the roof by brooming or vacuuming; power-wash the entire roof. Product can be applied directly to granulated mineral cap sheet roofing (conventional or modified) or to weathered metal roofing which is clean, dry and in good repair. For all other surfaces, first apply a base coat of **Henry #107® Asphalt Emulsion** at a rate of 3-4 gallons per 100 square feet. Emulsion base coat must be fully cured before applying **HE558 - AQUA-BRITE ALUMINUM ROOF COATING**; usually in 3-7 good drying days.

Application

Stir material in container thoroughly in a bottom to top motion. Do not use high speed mixers. Apply with a good quality soft synthetic bristle brush/broom, long napped (1/2") roller, or spray gun (0.35 to 0.80 inch orifice.) Apply at 1.5 gallons per 100 square feet. Apply liberally, brushing in one direction only. Avoid over-brushing, which will interfere with the leafing action of the aluminum and create a dark surface. Do not use a standard stiff bristle roofing brush; poor coverage, streaking, or a grained appearance may result.

For best results, it is recommended to spray applications of **HE558 - AQUA-BRITE ALUMINUM ROOF COATING** as a single coat. Spray in parallel strokes to avoid blotchy appearance. Coating should be applied under normal environmental conditions without thinning.

CURING: Allow enough time for the surface to cure completely before applying aluminum roof coating. Failure to allow for complete cure may result in cracking, alligating, or wide fissures opening up within the **HE558 - AQUA-BRITE ALUMINUM ROOF COATING** film.

Asphalt emulsion coatings and solvent vehicle asphalt primer are usually completely cured within a few days in good drying weather, when applied according to Henry Company's recommendations (avoid over application). Solvent based asphalt roof coatings or newly applied hot asphalt coatings should be allowed to cure a minimum of 30 days in good drying weather. After the hot asphalt coating has cured, a 3-4 gallons/100 square feet application of **Henry HE107 Asphalt Emulsion** must be applied before applying **HE558 - AQUA-BRITE ALUMINUM ROOF COATING**.

DRAINAGE:

HE558 - AQUA-BRITE ALUMINUM ROOF COATING is to be applied only to roofs with positive drainage. The minimum roof slope for use of coating products is 1/4" in 12". **HE558 - AQUA-BRITE ALUMINUM ROOF COATING** may not be used on surfaces that experience ponding water. Ponding water is defined as water remaining on a roof surface 48 hours after rain has stopped.

GENERAL SURFACE PREPARATION:

Determine the type of roof surface. Repair all blisters, breaks, buckles, and loose membranes before applying the coating. If the surface is contaminated with a fungus or mold, wash thoroughly with a mixture of 1 cup of household bleach in 5 gallons of water. Allow to stand 1 hour. Rinse thoroughly. Repeat if necessary. The surface must be thoroughly flushed and dried to accept any coating.

Consult with the manufacturer of the modified bitumen membrane to determine if their membrane will accept a coating. Review joint task force statement from the RCMA and ARMA on "Methods for Preparation of Modified Bitumen Membranes for the Application Surface Coatings".

APPLICATION TO VARIOUS MODIFIED BITUMEN SURFACES:

SMOOTH OR SAND SURFACE (APP or SBS MODIFIED)

- All surfaces must be brushed and washed clean. Allow to dry.
- Surfaces of systems adhered by hot mopping or torching may be washed as soon as the membrane is installed and cooled.
- Surfaces of cold application method (adhesive) systems may be coated after 60 days, if the surface is capable of being walked on.
- Surfaces exposed more than 6 months must be **power** washed AND primed with base coat of **HE107 Asphalt Emulsion** at 2-3 gal. per 100 sq.ft.
- All newly applied surfaces must be vigorously brushed and washed with a trisodium polyphosphate solution until all surface separating agent is removed. Surface may be washed as soon as the membrane is installed and cooled. Flush surface and allow to dry before applying the coating.
- Surfaces that have been weathered more than 30 days OR surfaces that exhibit oil/exudation must be **power** washed.
- Smooth surface APP exposed more than 5 years must be **power** washed AND primed with a **Henry Primer**.

GRANULE SURFACED MODIFIED SBS OR APP BITUMEN MEMBRANES:

- Hot mopped or torch applied membranes should be coated as soon after installation as is practical.
- Surfaces of cold application method (adhesive) may be coated after 60 days, if the surface is capable of being walked

Application

- on.
- Prior to coating, ensure that granules are tight and that the membrane is in good condition.
- Wash with standard water pressure and detergent. Flush and allow to dry. Surface may be washed as soon as the membrane is installed and cooled.
- Excessively weathered and loose granules must be power washed with a minimum 1500 psi water jet. Flush and allow to dry. Mechanically remove loose granules by brush and vacuum all loose surfacing. Excessively weathered surfaces should be primed with a solvent primer.

GENERAL NOTE:

Due to the molecular characteristics of asphalts and the blending of APP copolymers used in the production of some modified bitumen membranes, they may exude oil. This is most likely to happen as a result of hot and/or humid weather and elevated surface temperatures. If APP modified bitumen membranes exude oils extensively, they can cause roof coatings to delaminate and discolor.

Precautions

Do not use high-shear pumps and mixers, which will damage the aluminum and create a dark surface. Use only diaphragm pump and hand or low speed mechanical mixing. Do not apply unless temperatures are at least 50°F (10°C) and rising. Do not apply if there is a threat of rain, DEW, or temperatures below 50° F forecasted within 24 hours. **HE558 AQUA-BRITE ALUMINUM ROOF COATING** should not be stored at elevated temperatures. Storage at excessive temperatures may result in premature gassing of the product in the container. Keep from freezing. When transporting this product, be sure the pail is secured and the lid is tight. Do not allow pail to tumble as this may loosen the lid and allow leakage to occur. Do not heat container or store at temperatures greater than 110°F (43°C). Product has a limited shelf life; but may be stored up to 6 months at room temperature.

NOTE: This coating, like all asphalt-based products, forms a small amount of water soluble material as it weathers. Normally this is not noticeable because the rain washes it away. However, roofs having a pitch less than 1/2" per foot, or ones having poor drainage, will accentuate the problem by allowing water to stand in low spots, thus concentrating the water soluble material. If there is no rainfall, hose these roofs off to remove the water solubles. Frequent inspection of these roofs is recommended because abnormally rapid deterioration of any roofing material may occur where water stands for long periods.

Cleanup

All equipment can be cleaned up with water and heavy duty detergent. Dried material can be removed with kerosene or mineral spirits. Use care in handling solvent.

Caution

CAUTION! Do not heat container or store at temperatures greater than 90° F. Close container after each use. **DO NOT TAKE INTERNALLY!** Use protective measures to avoid contact with eyes and skin. **If swallowed, CALL PHYSICIAN IMMEDIATELY!** **In case of eye contact**, open eyelids wide and flush immediately with plenty of water for at least 15 minutes. **GET MEDICAL ATTENTION.** **In case of accidental injection** with power spray equipment, **GET MEDICAL ATTENTION IMMEDIATELY.** **KEEP OUT OF REACH OF CHILDREN! DO NOT ALLOW THIS PRODUCT TO FREEZE!**

WARNING: This product contains detectable amounts of chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

EMPLOYERS should obtain a copy of the **Material Safety Data Sheet (MSDS)** from your supplier or directly from the toll free number or website below.

Product Sizes

GALLON (9.37 lb)	5 GALLON (46.86 lb)	50 GAL/186 L (538.5 lb)
250 GALLON (2366 lb)		

Limited Warranty

The Stay Bright® 7 year Extended Warranty is in addition to our Limited Warranty. Call and request a Henry #558 Product Data Sheet for details.

LIMITED 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 be defective within 12 months of purchase, provided it has been applied in accordance with our written directions for uses we recommended 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 FOR A PARTICULAR PURPOSE. MANUFACTURER SHALL HAVE NO LIABILITY OF ANY KIND BEYOND PRODUCT REPLACEMENT, INCLUDING FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES RESULTING FROM ANY DEFECTS OR ANY DELAYS CAUSED BY REPLACEMENT OR OTHERWISE. THIS LIMITED WARRANTY PROVIDES THE PURCHASER'S EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT.**



Physical Properties

Appearance Black liquid	Consistency @ 77° F Light-bodied liquid	Solids By Volume 38.8%
Base Air blown asphalt	Flash Point -138° F (ASTM D-3278)	Solids By Weight 44.8%
CARB:Primer Max. MIR 1.20	Maximum VOC 550 g/l	Weight Per Gallon 7.34 lbs
Color Black	Maximum VOS 4.59lbs/gal	

Approvals and Certifications

Meets or exceeds the requirements of ASTM D-41, and Federal Specification SS-A-701B.

Description

HE104Q - QUICKDRY ASPHALT PRIMER (AEROS OL CAN) is a light-bodied, asphalt based material designed for priming surfaces prior to the application of hot-mopped or cold-applied asphalt coatings, roof cements and asphalt-based roof and flooring adhesives. Its highly penetrating qualities help assure a firm, tough bond.

NOTE: HE104Q - QUICKDRY ASPHALT PRIMER (AEROS OL CAN) in the spray can size complies with Air Quality Management District regulations.

Usage

- Metal edging and flashings
- Weathered composition roofing
- Concrete and masonry surfaces (prior to the use of solvent-based asphalt coatings or adhesives)
- Gypsum surfaces (prior to the use of solvent-based asphalt coatings or adhesives)
- Roofing surfaces prior to application of **Ruftac®** or other SBS self-adhering membrane

NOTE: For priming concrete, masonry or other porous surfaces to receive asphalt emulsion, use the emulsion diluted 20% with water.

Coverage

Coverage is 33 sq. ft. per can depending on porosity of surface.

Surface Preparation

Surface must be clean, dry, free of moisture as well as grease and oil.

Application

Shake can vigorously until ball rattles freely before using. Apply with good coverage to a clean, dry surface. Allow to dry thoroughly before applying coatings or adhesives. Avoid over-application and build-up of surface film. After spraying, turn can upside down, point nozzle into refuse can or at paper and push spray head for about 2 seconds to clear valve. If valve clogs, remove from can and clean in paint thinner.

Cleanup

Equipment can be cleaned with kerosene or mineral spirits. Clean hands with waterless hand cleaner. Use care in handling solvents.

Caution

DANGER! EXTREMELY FLAMMABLE! DO NOT PUNCTURE, INCINERATE OR BURN CAN EVEN WHEN EMPTY. Exposure to heat or prolonged exposure to sun may cause bursting.

CAUTION! COMBUSTIBLE! Contains petroleum distillate and hydrocarbon propellants. Keep away from heat, sparks and flame. Do not heat container or store at temperatures greater than 110°F. CLOSE AIR INTAKES until solvents dissipate. Contains volatile solvents that might contaminate potable water. Close container after each use. Dispose of container and unused contents in accordance with Local, State and Federal regulations. **DANGER! HARMFUL OR FATAL IF SWALLOWED!** If swallowed, do not induce vomiting. CALL PHYSICIAN IMMEDIATELY! Use protective measures to avoid contact with eyes and skin. In case of eye contact, open eyelids wide and flush immediately with plenty of water for at least 15 minutes. GET MEDICAL ATTENTION! **USE ONLY WITH ADEQUATE VENTILATION!** Avoid breathing of vapor. If you experience eye watering, headaches or dizziness, leave area or increase fresh air or wear respirator (NIOSH/MSHA TC 23C or equal). Repeated and prolonged occupational overexposure to solvent vapor may cause permanent brain and nervous system damage, and may cause liver or kidney damage. **KEEP OUT OF REACH OF CHILDREN.**

WARNING: This product contains detectable amount of chemicals known to the State of California to cause cancer, or birth defects or other reproductive harm.

EMPLOYERS should obtain a copy of the **Material Safety Data Sheet (MSDS)** from your supplier or directly from Henry at the toll free number or website below.

Product Sizes

17 OZ AEROSOL (1.65 lb)

Limited 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 be defective within 12 months of purchase, provided it has been applied in accordance with our written directions for uses we recommended 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 FOR A PARTICULAR PURPOSE. MANUFACTURER SHALL HAVE NO LIABILITY OF ANY KIND BEYOND PRODUCT REPLACEMENT, INCLUDING FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES RESULTING FROM ANY DEFECTS OR ANY DELAYS CAUSED BY REPLACEMENT OR OTHERWISE. THIS LIMITED WARRANTY PROVIDES THE PURCHASER'S EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT.**



TECHNICAL DATA SHEET
Henry® 209XR

Extreme Rubberized Wet Patch® Roof Leak Repair

Physical Property	Typical Value	Test Method
Appearance	Black thick paste	-
Base	Refined asphalt	-
Polymer Type	SEBS	-
Behavior @ 140 °F (60 °C)	No blistering/sagging/sliding	ASTM D4586
Consistency @ 77 °F (25 °C)	Soft, easily trowel-able paste	ASTM D217
Underwater Adhesion	100%	ASTM D3409
Freeze Resistance	Does not freeze	-
VOC	300 g/l maximum	EPA Method 24
Flash Point	105 °F (40.6 °C)	ASTM D3278
Pliability @ 32 °F (0 °C)	No cracking or separation	ASTM D4586
Water by Weight	3% maximum	ASTM D4586
Weight per Gallon	8.3-9.3 lbs.	ASTM D1475

Approvals and Certifications

- Miami-Dade County Approved
- Meets or exceeds ASTM D3409, Standard Test Method for Adhesion of Asphalt-Roof Cement to Damp, Wet, or Underwater Surfaces
- Meets or exceeds ASTM D4586, Standard Specification for Asphalt Roof Cement

Description

Henry® 209XR Extreme Rubberized Wet Patch® Roof Leak Repair is an ultra-premium, rubberized roof sealant with excellent adhesion, especially at moving joints where its flexibility and elasticity make it superior to standard roof cements. Instantly stops leaks in severe weather conditions and is especially easy to spread in cold temperatures.

Features

- Stops leaks instantly, even in standing water
- Apply from -20 °F to 140 °F (-28.9 °C to 60 °C)
- 100% wet surface adhesion per ASTM D3409
- No blistering, sagging or sliding per ASTM D4586
- Permanently resists shrinkage
- Product performance is not impacted by permanent UV exposure
- Lifetime limited warranty

Product Size

11 fl. oz. cartridge, 1 gallon and 3.5 gallon

Usage

- Repairs holes, cracks and splits on composition, mineral surface cap sheet, asphalt coated, SBS modified, metal and masonry roofs.
- Seals leaks and openings around flashings, chimneys, vents, skylights, joints in metal edging, gutters, etc.

Henry® 209XR Extreme Rubberized Wet Patch® Roof Leak Repair

Application

Clean: Clean dirt and loose material from surface. Remove embedded gravel and old roof cement that would interfere with a good bond. Remove rust and scale with wire brush.

1. Apply ½" to ¾" thick with a trowel or putty knife. Work into hole and spread 2" to 4" beyond, feathering the edges.

Cartridge: Cut nozzle at angle, puncture inner seal and apply with caulking gun. Work into hole ½" to ¾" thick with a trowel or putty knife. Press firmly and spread at least 2" beyond, feathering edges.

2. Reinforce with Henry® 181 or Henry® 183 Roof Repair Fabric if hole is over ¼" wide or 2" long. Henry® roof repair fabric required for lifetime warranty.

3. Cover repair with a second layer of cement.

DO NOT THIN. Do not heat container or store at temperatures >110 °F (>43 °C). When transporting, make sure the pail is secured and the lid is tight to prevent spills. **CLOSE AIR INTAKES ON ROOF UNTIL SOLVENTS DISSIPATE!** May not yield satisfactory results over some APP torch down membranes. Contact Henry® and membrane manufacturer before use. Not recommended for use over gravel, rubber or PVC sheet roofing or wood shingles. To extend repair life, coat with a Henry® roof coating after 30 days.

Coverage

Approximately 12 sq. ft. per gallon applied 1/8" thick. Approximately 15 linear feet of 3/8" bead per 11 fl. oz. size cartridge.

Clean-up

Clean tools with mineral spirits. Clean hands with waterless hand cleaner.

Limited Product Warranty

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 the life of the existing roof, provided it has been applied in accordance with our written directions and used with Henry® repair fabric. 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® 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® 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® express warranty.

For more information, visit www.henry.com or for technical assistance call us at 800-486-1278. Refer to the Safety Data Sheet prior to using this product. The Safety Data Sheet is available at www.henry.com or by emailing Henry® Product Support at productsupport@henry.com or by calling 800-486-1278.

® Henry and Wet Patch are registered trademarks of Henry Company

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. Henry® Company 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.

Henry® Company, 999 N. Sepulveda Blvd., Ste. 800 El Segundo, CA 90245
Tel: 800-486-1278 Email: techservices@henry.com
www.henry.com

Revision Date: 6/28/2017



#1 CHOICE OF PROFESSIONALS.

TECHNICAL DATA SHEET

NP180s/s

Base Sheet

Physical Properties

-Thickness	0.090 inches (2.2 mm) \pm 10%	-Thickness	2.2 mm (90 mils)
-Tensile Strength		-Roll Length	49.2 ft.
Machine Direction	100 lbf/inch	-Roll Width	39 3/8"
Cross Machine Direction	80 lbf/inch	-Gross Coverage	161.4 ft ²
-Elongation @ 0°F		-Net Coverage	147.8 ft ²
Machine Direction	40%		
Cross Machine Direction	37%		
-Tensile Tear			
Machine Direction	100 lbf/inch		
Cross Machine Direction	70 lbf/inch		
-Low Temperature Flexibility			
Machine Direction	0°F		
Cross Machine Direction	0°F		
-Dimensional Stability			
Machine Direction	<0.5%		
Cross Machine Direction	<0.5%		
-Top Surface	Sanded		
-Bottom Surface	Sanded		
Manufactured and Tested in accordance with ASTM D5147: Standard Test Method for Sampling and Testing of Modified Bitumen Roofing Membranes and/or Manufactured to meet ASTM D6164, Type I, Grade S.			

Uses

NP180s/s Base Sheet is designed for use as a base sheet in variety of **Elasto-Seal® 790-11**, Green Roofing, *modifiedPLUS®* modified bitumen systems or other waterproofing and roofing systems.

Refer to Guide Specifications for detailed use at www.henry.com

Features

- SBS polymer provides flow resistance at high temperatures and flexibility at low temperatures for lasting durability.
- Sand surfaced on both sides for use in hot or cold applied systems
- Non-woven polyester 180g/m² re-inforcement
- Designed for application in new construction, re-roofing and retrofit roofing.
- Excellent tear resistance

Limitations

Non-resistant to oils and solvents. Refer to manufacturer for specific chemical resistance. Not designed for permanent exposure. Install *modifiedPLUS®* granule surfaced cap sheet over base sheet for permanent exposure.

Storage

Store rolls on end, on original pallets or elevated platform. Protect from weather or store in an enclosed area not subject to heat over 120°F.

Surface Preparation

Refer to published Guide Specifications for acceptable substrates at www.henry.com

Application

Refer to published Guide Specifications for acceptable substrates at www.henry.com

Limited Warranty

We, the manufacturer, warranty 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 be defective within 12 months of purchase, provided it has been applied in accordance with our written directions for uses we recommended as suitable for this product. Proof of purchase must be provided. **DISCLAIMER OF WARRANTIES:** The 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, and we, the manufacturer, shall have no further liability of any kind including liability for consequential or incidental damages resulting from any defects or any delays caused by replacement or otherwise.

<>



Physical Properties

Appearance Fabric with adhesive backing	Elongation (Initial) 85% MD (ASTM D-1682)	Maximum VOS 0 lbs/gal
Application Temperature 50° F. and rising	Flash Point 430°F	Thickness (mils, dry) 75 mils (ASTM D-1777)
Color Black	Maximum VOC 0 g/l	Water Vapor Permeance 0.1 perms (max.) (ASTM E-96 Method B)

Description

HE600 - RUF-TAC is a tough SBS-modified roofing membrane manufactured by Henry Company. The adhesive asphalt underside is self-adhering to most substrates without the need for heat or adhesives. **HE600 - RUF-TAC** is easy-to-apply, waterproof and has excellent elongation. The non-woven polypropylene fabric reinforcement provides strength and endurance with superb flexibility. The release paper on the under side prevents sticking in the roll and protects the self-adhesive asphalt layer prior to application. Side laps are self-sealing; end laps are sealed with **Henry # 209 Elastomastic**. A protective/reflective coating or other surfacing is required to protect the surface of **HE600 - RUF-TAC** from solar rays.

USES

- Sealing metal edging and flashing metal.
- Base and Wall flashings.
- Sealing end laps of metal coping and expansion joints.
- Sealing joints and fasteners on corrugated metal and air conditioning ducts.
- Repair of splits, breaks and blisters in built-up roofs.
- Flashing air conditioning supports.
- Mobile home, patio, and room addition roofs.
- SBS-Modified roofing systems especially suited for small or hard-to-work in areas.
- Ice shield under shingles and tile roofs.

IMPORTANT PHYSICAL PROPERTIES

1) Grab Tensile

- 180 lbs. MD (ASTM D-1682)
- 190 lbs. XMD (ASTM D-1682)

2) Elongation

- 85% MD (ASTM D-1682)
- 75% XMD (ASTM D-1682)

3) Strip Tensile

- 60 lbs./in. (ASTM D-822)

4) Puncture Resistance

- 200 lbs. (ASTM E-154)
- 80 lbs. (CW02215 - Corps of Engineers)

Coverage

SIZES

- 36" X 38'-----50 lbs. each (1 roll/ ctn)
- 9" X 50'-----12.5 lbs each (4 roll/ctn)
- 12" X 50'-----16.6 lbs each (3 roll/ctn)

COVERAGE

- 36" X 38' -----104.5 sq.ft.
- 9" X 50'-----37.5 sq. ft.
- 12" X 50'-----50 sq. ft.

Surface Preparation

Prime perimeter edges, base of protrusions, concrete, metal, and wood with **Henry #103 or #104 Asphalt Primer** and allow to dry.

Roof Repairs: Cut and flatten blisters, curled edges, and unnecessary projections to provide a smooth, even surface.

Clean the substrate, removing all gravel, water, dust, residues, dirt, and oil. Roof must be dry, clean and smooth. Prime dusty surfaces with a light coat of **Henry Asphalt Primer** and allow to dry.

Compatibility Rating of Substates with Ruftac®

- Aluminum Sheet, Sheet Metal, Asphalt Coating, Concrete - Good.
- Existing Built-Up Roof (with gravel removed), or Buffer Layers - Good.
- Fiberglass Base of Ply Sheet, Gypsum Board, Plywood - Good.
- Fiberglass Insulation Board - Fair.

Application

The procedures that follow are intended as a general guide. For greater detail, U.L. Approved Systems, or other installations contact a Henry representative.

Roof System: Contact a Henry representative for recommendations.

Base Flashing: (a) where cant strips are parallel to the **HE600 - RUF-TAC** membrane direction, install the membrane to the base of the cant only. Reinforce the angle with 12" wide **HE600 - RUF-TAC** extending 6" on the deck then apply a second layer extending from the top of the base flashing to a line on the deck 14" from the cant strip. All 4" laps without the self-sealing edge shall be sealed with a ribbon of Elastomastic extending 2" onto the substrate. (b) Where cant strips are at right angles to the membrane direction, install the membrane to the top of the cant. Cover the base flashing area with 36" width **HE600 - RUF-TAC** extending from the top to the flashing on the deck 14" from the cant strip. The 12" wide angle-reinforcing strip referred to in (a) above may be omitted.

Metal Edge Flashing: (a) Where existing metal edging is to be reused, extend the base sheet to the inner edge of metal and the 12" **HE600 - RUF-TAC** to within an inch of the lip and press the outer 2" of membrane into a ribbon of Elastomastic. (b) Where new metal edging is required, extend the base sheet and **HE600 - RUF-TAC** 2" over the edge of the roof, install the new metal over it and seal in the primed metal flange with a 12" strip of **HE600 - RUF-TAC**. Press both edges of **HE600 - RUF-TAC** strip into a ribbon of Elastomastic.

Protective Coating: Coat all **HE600 - RUF-TAC** surfaces with **Henry # 229, # 220, or # 520 Aluminum Fiber Coating** applied at the rate of 1-1/2 gallons/100 sq. ft. In valley and low areas, a base coat of **Henry # 107 or # 307 Asphalt Emulsion** is recommended prior to the aluminum coating. Apply Emulsion at 3 to 6 gallons/100 sq. ft. Coating may be applied as soon as **HE600 - RUF-TAC** is completely adhered, or may be delayed for several weeks after membrane application, if surface is thoroughly cleaned.

Limitations: Temperatures above 50° F. are required for easy application of **HE600 - RUF-TAC**. Lower temperatures may necessitate the use of heating equipment. Application directly over gravel surface is not recommended. Do not allow adhesive layer to fold over and contact itself as separation is virtually impossible, particularly in warm weather.

Cleanup

Asphalt can be removed by use of mineral spirits, paint remover, or kerosene. Use caution when handling solvents.

Caution

WARNING: This product contains detectable amounts of chemicals known to the State of California to cause cancer, or birth defects or other reproductive harm.

EMPLOYERS should obtain a copy of the **Material Safety Data Sheet (MSDS)** from your supplier or directly from Henry at the toll free number or website below.

Product Sizes

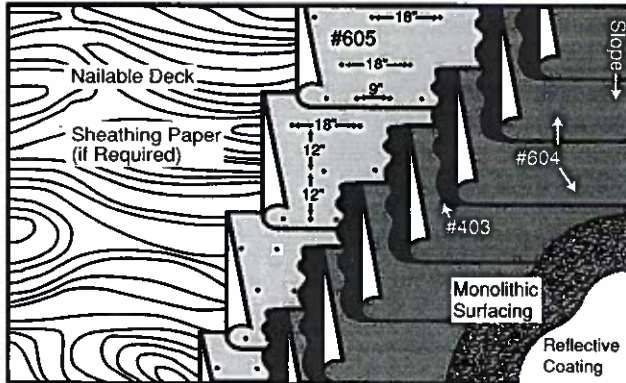
12IN X 50FT ROLL (23 lb)

36IN X 38FT ROLL (52 lb)

Limited Warranty

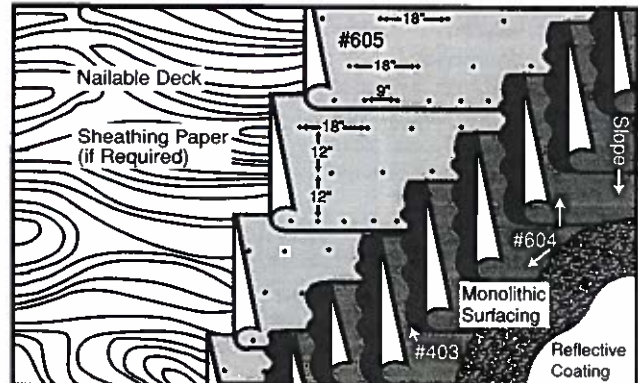
We, the manufacturer, warrant only that this product is free of defects, since many factors which affect the results obtained from this product - such as weather, workmanship, equipment utilized and prior condition of the substrate - are all beyond our control. We will replace at no charge any product proved to be defective within 12 months of purchase, provided it has been applied in accordance with our written directions for uses we recommended 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 FOR A PARTICULAR PURPOSE. MANUFACTURER SHALL HAVE NO LIABILITY OF ANY KIND BEYOND PRODUCT REPLACEMENT, INCLUDING FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES RESULTING FROM ANY DEFECTS OR ANY DELAYS CAUSED BY REPLACEMENT OR OTHERWISE. THIS LIMITED WARRANTY PROVIDES THE PURCHASER'S EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT.**

3-PLY



GUIDE SPEC H3-NGC-MR

4-PLY



GUIDE SPEC H4-NGC-MR

DESCRIPTION

- ◆ Consists of mechanically attached Underlayment and 2 or 3 plies of Fiberglass Base Sheet adhered with ColdAp® Cement. Membrane is surfaced with Asphalt Emulsion reinforced with Chopped Fiberglass and finished with Reflective Coating. Specification suitable for nailable deck without insulation.
- ◆ Cold application
- ◆ Roof warranties available. Consult with Henry Representative for requirements in your area.

INSERT "PART 1 – GENERAL" as part of this specification

PART 2 – PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Materials manufactured or supplied by Henry Company, 2911 Slauson Ave., Huntington Park, CA 90255. (213) 583-5000.

2.02 PRODUCT DELIVERY

- A. Bulk delivery material shall be accompanied by a Henry Company bill of lading.

2.03 MATERIALS

- A. Sheathing paper (wood decks only) -1 ply
- B. BASE PLY (Select 1):
 1. ~~#605~~ Underlayment, Inverted (now #606)
 2. #607 33# Fiberglass Base
- C. INTERPLY – 2 or 3 layers (Select 1):
 1. #604 25# Fiberglass Ply Sheet (Standard)
 2. #607 33# Fiberglass Base (Heavy Duty)
- D. INTERPLY ADHESIVE – 1½-2 Gallons/Square/Ply (.6-.8l/m²)(Select 1):
 1. #902 Permanent Bond Adhesive (SBS Modified)
 2. #403 ColdAp Cement
- E. SURFACING - 9 Gallons with 3 lbs. Glass/Square (3.7l with .15kg/m²):
 1. #107 Asphalt Emulsion – and #189 Chopped Fiberglass

F. REFLECTIVE SURFACING (Select 1):

1. #229 Aluminum Emulsion- 1½ Gallons/Square (.6l/m²)
2. #220 Fibered Aluminum - 1½ Gallons/Square (.6l/m²)
3. #280 Elastomeric White Roof Coating #294 BASE Coat

G. MISCELLANEOUS PRODUCTS

1. Primer (Select 1):
 - a. #104 Asphalt Primer
 - b. #105 Water-Based Primer (S. CA.)
2. #505 FlashMaster
3. Ruftac – 75 mil - SBS modified self-adhesive membrane
4. Reinforcing Glass – Yellow
5. Walk pads
6. Approved mechanical fasteners

PART 3 – APPLICATION

3.01 GENERAL

- A. Henry Company's General Requirements and Product Data are a part of this specification.
- B. (Include if reroofing) Do not remove any more roofing than can be replaced the same day.

3.02 EXAMINATION

- A. Inspect deck and advise Owner's Representative of any corrections required before proceeding with roofing.

3.03 PREPARATION

- A. Sweep or vacuum all surfaces prior to commencement of roofing. Allow surface to dry before proceeding.
- B. Cut base and ply sheets into appropriate lengths. Allow plies to flatten before application.

3.04 MEMBRANE APPLICATION:

- A. (Wood decks only.) Over roof deck install one layer of rosin sheathing paper. Lap each sheet 2" (51mm) and nail sufficiently to hold in place.
- B. **BASE PLY** Apply (INSERT SELECTED PRODUCT #) base ply with 2" (51mm) side laps and 4" (102mm) end laps. Apply the first sheet of base with a 12" (305mm) width and the remaining sheets full width. Nail base sheet at side laps 9" (229mm) on center and 18" (457mm) on center, staggered in two rows 12" (305mm) from each edge.
- C. **INTERPLIES.** (Select 1):
 - 1. **TO COMPLETE 3-PLY ASSEMBLY:** Over the base sheet, apply 2 (INSERT SELECTED PRODUCT #) interply sheets set in a uniform application of (INSERT SELECTED PRODUCT #) cold applied cement at a rate of 1-1/2 to 2 gallons per 100 sq.ft. (.6-.8l/m²). Apply the first sheet with an 18" (457mm) width then over that a full width piece. Install the remaining sheets full width overlapping preceding sheet 19" (482mm). On slopes greater than 1½":12" (125mm/m), backnail interply sheets 2" (51mm) from top edge, 12" (305mm) on center. On slopes over 3" in 12" (250mm/m), install interplies parallel to slope blindnailing 4" (102mm) end laps only, 6" (152mm) on center.
 - 2. **TO COMPLETE 4-PLY ASSEMBLY:** Over the underlayment, apply 3 (INSERT SELECTED PRODUCT #) interply sheets set in a uniform application of (INSERT SELECTED PRODUCT #) cold applied cement at a rate of 1-1/2 to 2 gallons per 100 sq.ft. (.6-.8l/m²). Starting at the low point, apply a 12" (457mm) wide piece, then over that, one 24" (610mm) wide, then over both, a full width piece. Install the remaining sheets full width overlapping preceding sheet 24-2/3" (699mm).

- D. Before the end of each day, roll the membrane with a 75 lb. (34kg) (minimum) weighted roller. Provide waterstops and seal all terminations.

3.05 FLASHINGS

- A. Install Flashing Specifications Numbers _____, _____.

3.06 SURFACING (Monolithic System)

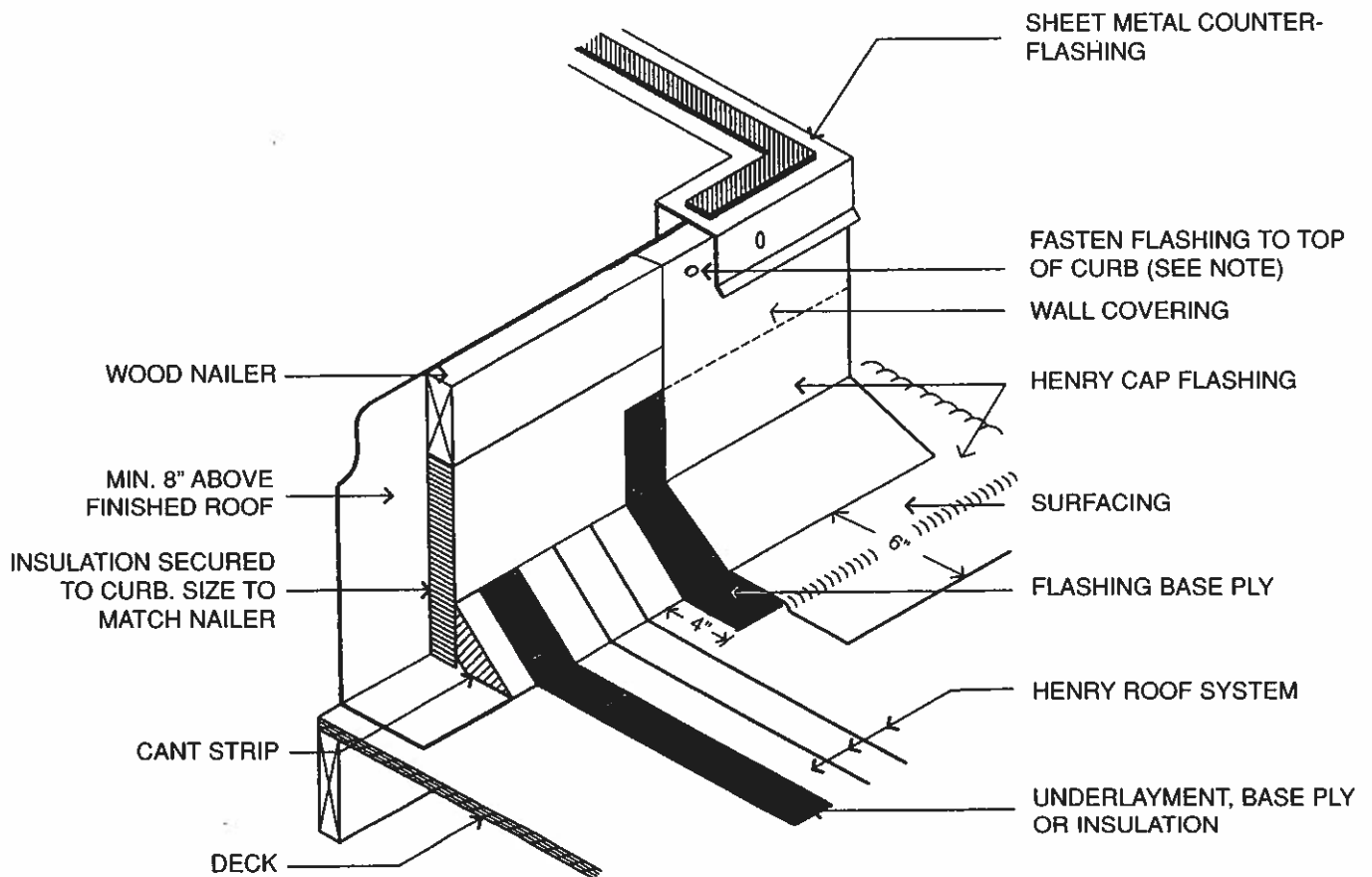
- A. After adhesive has thoroughly cured (no solvent odor is evident and laps cannot be pulled apart), sweep or pressure blow dust and debris from the roof surface to provide a clean surface. Hose and/or scrub off with water any residue accumulation.
- B. Protect adjacent walls not scheduled for emulsion and reflective coating. Protect equipment, roof top units, etc. from overspray.
- C. Cover prepared surfaces with not less than 9 gallons per 100 sq.ft. (3.7l/m²) of undiluted #107 Asphalt Emulsion. Evenly blend emulsion with 3 lbs. (1.4kg) of ¾" (19mm) long chopped glass reinforcing sprayed with equipment approved by Henry Company. Tufting of the glass fibers is not acceptable. Spray emulsion in a pattern into laps of base sheet so that when system is dry, there are no voids or bridging of glass over any seam of the membrane.
- D. Spray base flashings and other designated surfaces with the Monolithic System.

3.07 REFLECTIVE COATING:

- A. As soon as emulsion surfacing has cured (tack-free and black), clean the surface of dust and debris. Scrub out any pockets of residue.
- B. **SELECT ONE:**
 - 1. Apply #229 Aluminum Emulsion Coating at the rate of 1½ gallons per 100 square feet (.6l/m²) in one coat.
 - 2. Apply #220 Fibered Aluminum Coating at the rate of 1½ gallons per 100 square feet (.6l/m²) in one coat.
 - 3. Apply #280 White in two coats at minimum ¾ gallon per square (.3l/m²) per coat, following instructions and limitations on product data sheet.
- C. Any areas that peel must be redone before the project will be considered complete.



METAL CURB FLASHING

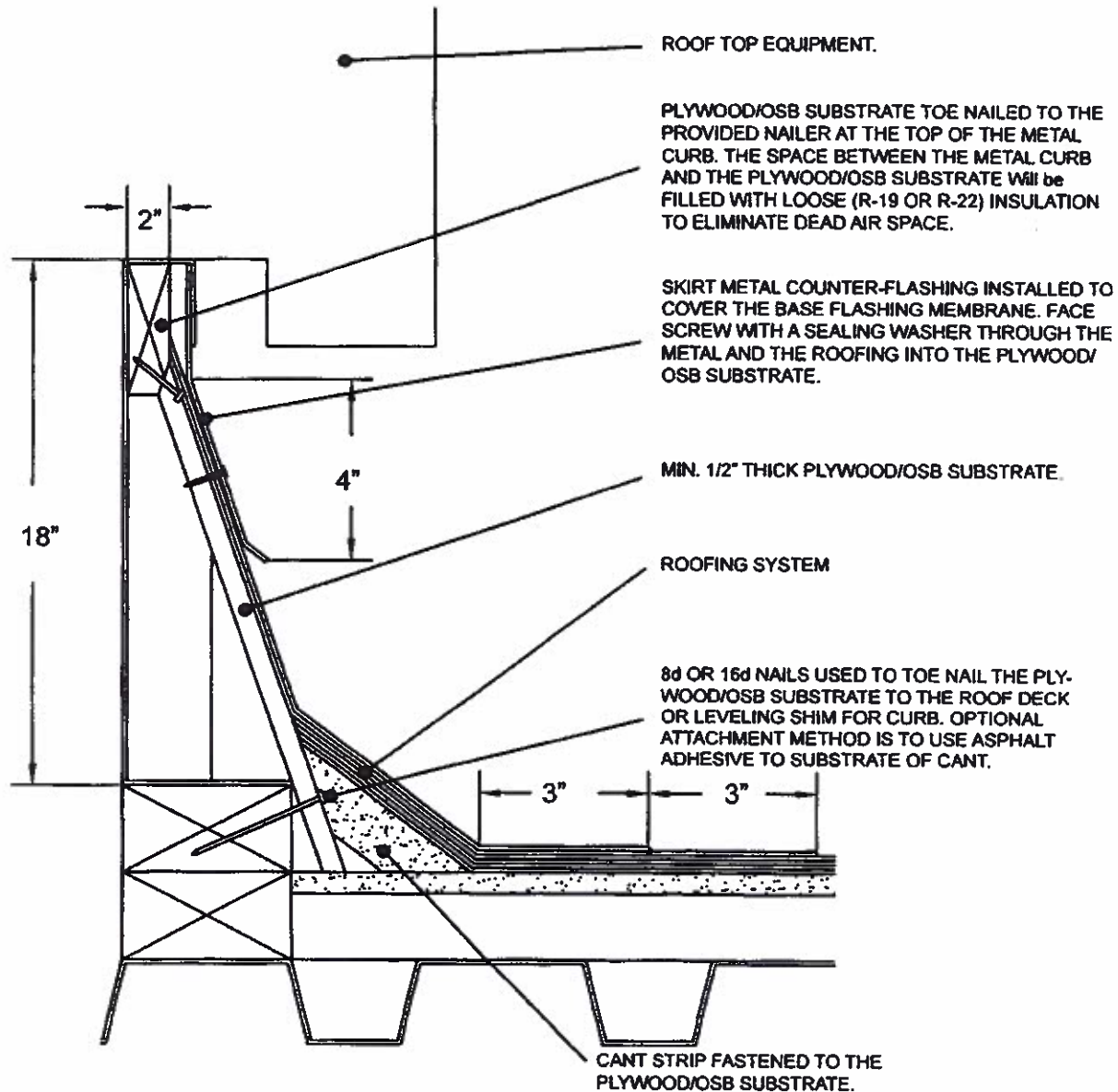


NOTE:

1. COUNTER-FLASHING SKIRT REQUIRED WHEN FASTENERS ARE EXPOSED.

DETAIL #H-C2

PYRAMID BASE FLASHING



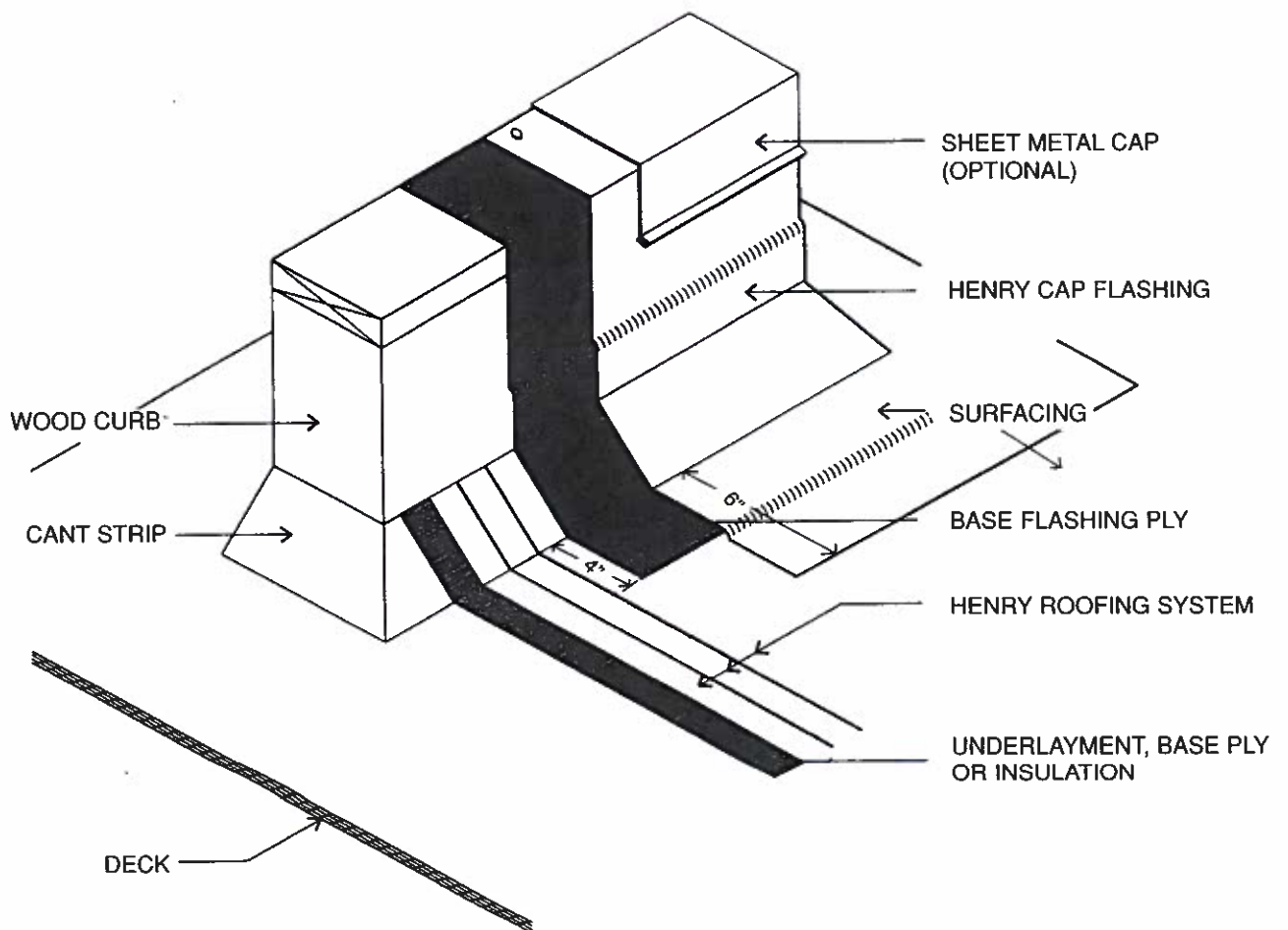
NOTES:

THIS DETAIL IS RECOMMENDED FOR USE AS AN ALTERNATE TO A DUAL CANTED BASE FLASHING. DUAL CANTED BASE FLASHING CAN BRIDGE ONCE ELEVATED ROOF TEMPERATURES OCCUR.

LOW SLOPE



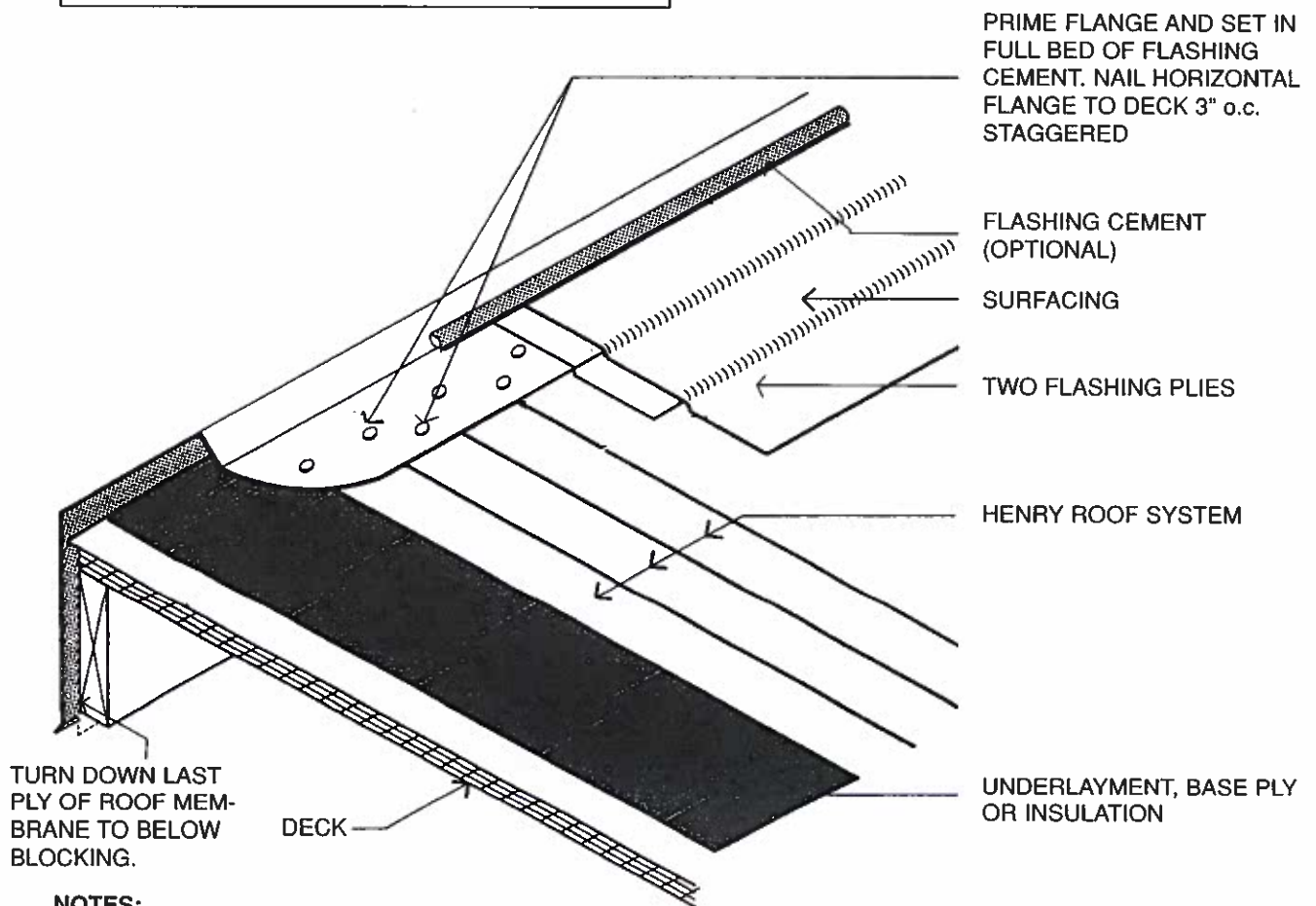
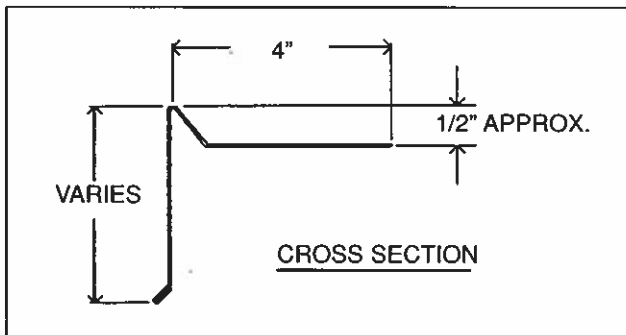
EQUIPMENT SUPPORT



DETAIL #H-C3



EDGE FLASHING



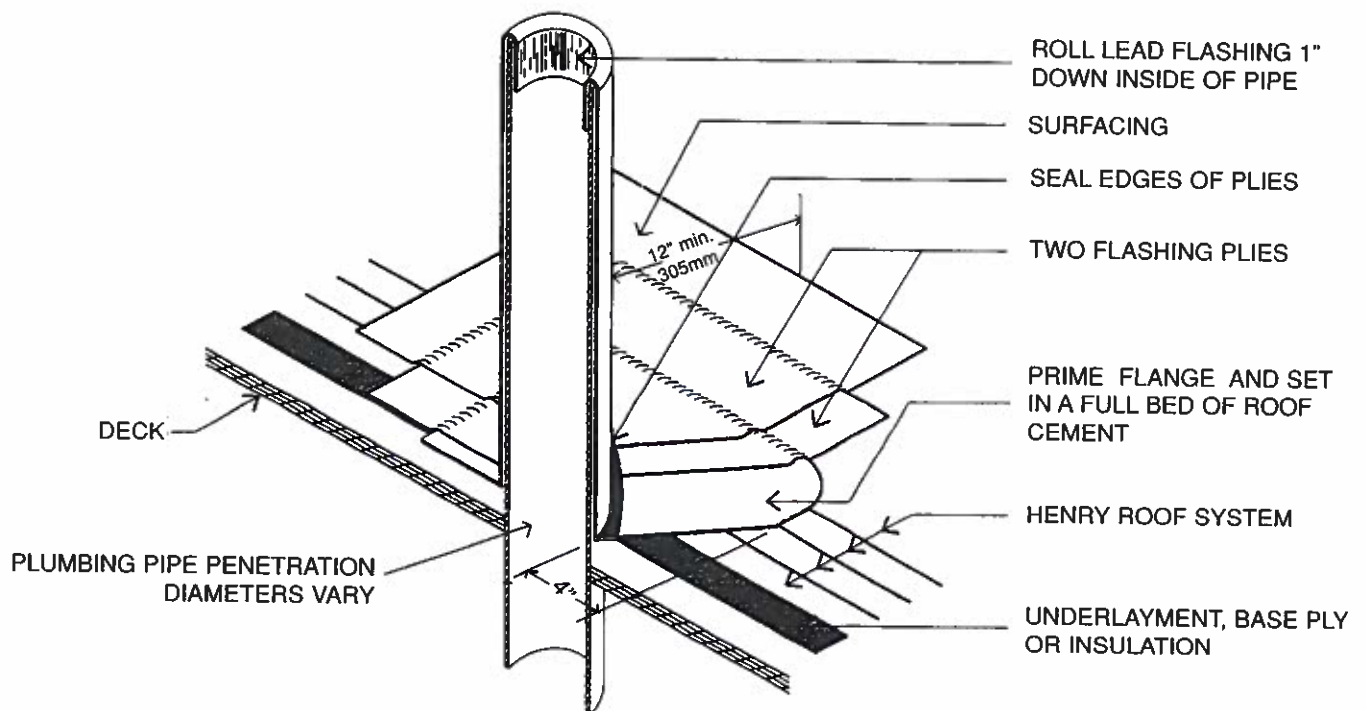
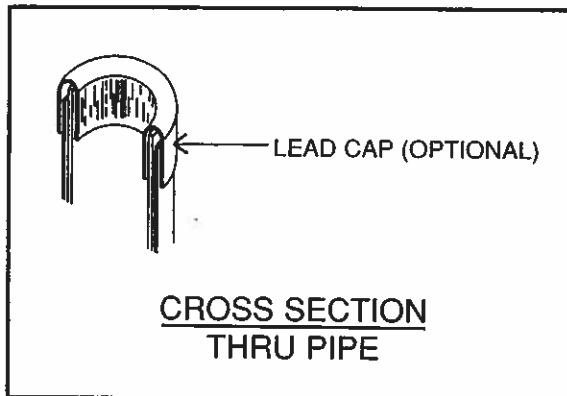
NOTES:

1. 4" SHEET METAL FLANGE ON DECK.
2. SET METAL ON FINISHED ROOF PLIES AND STRIP-IN BEFORE SURFACING.
3. NAILER REQUIRED ON INSULATED SYSTEMS.

DETAIL #H-E1



PIPE PENETRATION LEAD FLASHING



DETAIL #H-P2

Henry®

THIS INDICATES THAT

Bell Roof Company

is hereby authorized as a Henry® Gold Seal Authorized Contractor eligible to install and apply for Henry® Gold Seal Warranties on the following systems:

Hot Applied <i>modified</i> PLUS Systems	Monolithic Systems
Cold Process <i>modified</i> PLUS Systems	Cold Process BUR Systems
Polyester Maintenance Systems	

Issue Date: 3/2/2018
Expiration Date: 3/1/2021
Authorization #: 137291-007

Issued By: *William Ribac*
Mr. Nelson Ribac
Legal & Warranty Manager



____ Year Warranty

WARRANTY No. _____ DATE OF COMPLETION _____

WARRANTY ANNIVERSARY DATE _____ AREA OF ROOF _____ SQUARES

PROJECT NAME _____

PROJECT ADDRESS _____

OWNER _____

OWNER'S ADDRESS _____

TELEPHONE () _____ FAX () _____

HENRY APPROVED CONTRACTOR _____

CONTRACTOR ADDRESS _____

TELEPHONE () _____ FAX () _____

BUILDINGS IN PROJECT _____

ROOF SPECIFICATION _____

FOR A PERIOD OF _____ YEARS from the Date of Completion, **Henry Company**, a California Corporation (**Henry**), WARRANTS to the above Owner ("Owner") that the Henry Roof System, when properly installed by the identified **Henry Certified Contractor (HCC)**, when affixed to the building described above (the "facility"), will not deteriorate to the extent that the Henry Roof System will permit leaks into the facility when exposed to ordinary wear and usage.

In the event any leaks into the facility result from failure of the Henry Roof System to properly perform as described in this warranty, **Henry** shall take all actions necessary to return the Henry Roof System to a watertight condition or to provide for the replacement of the Henry Roof System if **Henry** unilaterally determines such replacement to be more cost effective than continuing to repair leaks.

**IF YOUR ROOF LEAKS, IMMEDIATELY CALL THE HCC
AT THE NUMBER ABOVE OR HENRY TOLL FREE AT (800) 676-6921.**

Owner shall advise **Henry** or **HCC** within 24 hours of first noticing any leaks. Failure to so advise in a timely manner shall relieve **Henry** and **HCC** of any obligation to repair any damage to the Henry Roof System caused by such delayed notice.

Upon receiving such notice, **Henry** shall respond within 48 hours of this notice and make its best effort to stop the leaks. Thereafter, if further work is required, the Henry Roof System will be more permanently repaired as weather conditions permit. If the leaks are the responsibility of **Henry**, there will be no charge for any leak repairs. If the leaks are a result of causes not covered by this Warranty or as defined below, the Owner shall pay for the reasonable costs of repair to those portions of the Henry Roof System so damaged. "Reasonable costs" under this Warranty shall be charges by **HCC** for per hour wage of the roof mechanic(s) required, and per man charges for insurance and labor burden, actual cartage, equipment, transportation, costs of all materials, **HCC's** profit of 15% and, if processed through **Henry**, a fee for **Henry's** administration of \$75.

HCC's Responsibilities

In order for **HCC** to meet the requirements of this warranty, **HCC** shall:

1. apply the Henry Roof System in accordance with **Henry** specifications and in accordance with good roofing practices.
2. pay for all materials **Henry** provides **HCC** which are incorporated into the Henry Roof System.
3. submit all parts of the **Henry** Limited Roofing System Warranty application to **Henry** prior to commencement of any roofing on the facility which will be covered by this warranty.
4. accommodate all inspections of the Henry Roof System as required by **Henry** with the inspector identified by **Henry** for this project.
5. provide the Owner and user of the facility a copy of **Henry's** Roof Owner's Maintenance Manual which describes the Owner's responsibilities for proper usage and care of the Henry Roof System and explain the Owner's requirements.
6. notify **Henry** in writing of any leaks to the Henry Roof System reported to **HCC** within five (5) calendar days of being notified by the owner or user of the facility.

Owner's Responsibilities

In order for the Owner to meet the requirements of this warranty, Owner shall

1. comply with its obligations described in **Henry's** Roof Owner's Maintenance Manual and, during the term hereof, have any repairs and alterations made to the Henry Roof System by the **HCC** or other contractor so qualified by **Henry**.
2. notify **HCC** and **Henry** within twenty four (24) hours of discovery of any leaks to the Henry Roof System, noting as many specifics of the conditions observed so prompt investigation can properly proceed.

ANY FAILURE BY HCC OR THE OWNER TO MEET THESE REQUIREMENTS VOIDS THIS LIMITED WARRANTY AND RELEASES HENRY FROM ANY LIABILITY FOR LEAKS IN THE HENRY ROOF SYSTEM

Henry's Responsibilities

Henry shall:

1. reasonably accommodate all requests by **HCC** to assist and inspect the roofs on the facility.
2. timely investigate all claims by **HCC** or the Owner of leakage in the Henry Roof System during the term hereof.
3. supply at **Henry's** expense all materials and labor required to return the Henry Roof System to a watertight condition for all appropriate claims made under this limited roofing system warranty.

Misuse of the Henry Roof System and Exclusions From Coverage

The Henry Roof System*, when properly installed and used, should not leak during the term of this agreement.

* THE "HENRY ROOF SYSTEM" INCLUDES THE FOLLOWING ITEMS SUPPLIED BY HENRY: ADHESIVES, WATERPROOFING BITUMEN, POLYESTER OR FIBERGLASS REINFORCING PLY SHEETS, ALL COMPONENTS COMPRISING MONOLITHIC COATING, INCLUDING CHOPPED FIBERGLASS, FINAL REFLECTIVE COATING MATERIALS, RUFTAC REINFORCING SHEETS AND ASPHALTIC FLASHING MATERIALS;

AND EXCLUDES ITEMS: GRANULES, ANY SHEET METAL PRODUCTS, ANY VENTS, GUTTERS (AND OTHER RAIN GEAR, SUCH AS SCUPPERS), SKYLIGHTS, CONTRACTOR FABRICATED FLASHINGS AND ANY OTHER ITEMS INCORPORATED INTO THE ROOFING SYSTEM NOT SUPPLIED BY HENRY.

This warranty does not obligate Henry for leak damages or required repair which occurs, directly or indirectly, as a result of a) natural disasters, hail, excessive wind damage, falling objects and other acts of God and usage beyond reasonable expectation of Henry when the Henry Roof System was accepted b) misuse, abuse or negligence on the part of the Owner or building or mechanical tradesmen; c) traffic or storage on the roof; d) failure of building components not included in the Henry Roof System; e) changes in building usage which add different stresses to the roof system than anticipated at the time the Henry Roof System was completed; f) chemical attack, exposure to oil, corrosives, solvents or vermin, etc.; g) failure or movement of existing underlying roof(s), the substrate, roof insulation, underlying materials not supplied as part of the Henry Roof System, including, but not limited to, metal, lead, plastic, rubber, concrete and masonry materials, whether due to design defects, structural movement or mechanical failures; h) moisture migration either through, or around the building structure such as roof top equipment, walls, copings, pitch pans, or low profile details which do not conform with NRCA details; and j) ponding conditions, i.e., areas which do not freely and properly drain accumulated water within 48 hours of measurable precipitation.

MAINTENANCE RESPONSIBILITY IS THE OWNER'S

THIS HENRY ROOF SYSTEM LIMITED WARRANTY IS NOT A MAINTENANCE AGREEMENT OR AN INSURANCE POLICY. ROUTINE INSPECTIONS AND MAINTENANCE OF THE ROOF SYSTEM MUST BE COMPLETED BY THE OWNER ON A REGULAR BASIS AND IS THE OWNER'S RESPONSIBILITY. REFER TO THE ROOFS OWNER'S MAINTENANCE MANUAL PROVIDED TO OWNER FOR PERFORMING REGULAR AND ROUTINE ROOF INSPECTIONS AND REPAIRS.

LACK OF REGULAR MAINTENANCE SHALL VOID THIS WARRANTY.

DISPUTE RESOLUTION

In the event Henry, HCC, and the Owner cannot agree as to responsibilities under this Warranty, since such issue(s) is (are) primarily technical in nature, based upon reasonable application of custom and usage, rather than legal theory, the parties agree to submit any such disagreement to arbitration as an exclusive remedy for resolution of any such disagreement. Pursuant to applicable sections of the state law in which the facility is located, all parties specifically waive any litigation alternative for resolution of any dispute.

Any arbitration shall proceed in accordance with the specific directions of a professional roofing consultant mutually selected by the parties. In the event the parties cannot agree on any one individual or firm, each party shall select a professional roofing consultant and the consultants selected by the parties shall then mutually select one, unaffiliated professional roofing consultant to become arbitrator of the issues raised. The person selected in either fashion shall become the Arbitrator.

Once a decision is reached by the Arbitrator, the non-prevailing party (or parties) is (are) responsible for all costs of the arbitration proceedings, including reasonable attorneys' fees of the prevailing party(ies). As part of any award or decision, the Arbitrator shall determine the amount and reasonableness of such costs. The prevailing party(ies) assumes all responsibility for enforcing the decision of the Arbitrator in the applicable court including all costs therefore. Any enforcement action shall be to enforce the Arbitrator's findings and for costs of enforcement, which the parties hereto agree shall be chargeable to the non-prevailing party(ies) by such court in any enforcement action.

In the event the Owner files any litigation in any court regarding the responsibilities of Henry or HCC or both for performance of the roof system described herein, Henry shall file a petition with any such court for dismissal of such action as meeting its obligations under the contractual arrangement represented by this Warranty and the parties hereto agree that dismissal of such action must be mandated by this court, regardless of the nature of any claim which may be made, since the parties agree all such controversy shall be resolved in accordance with this arbitration provision.

LEGAL LIMITATIONS

TO THE EXTENT PERMITTED BY APPLICABLE LAW, Henry DISCLAIMS ANY OTHER WARRANTY THAN THAT PROVIDED FOR HEREIN. Henry's EXCLUSIVE RESPONSIBILITY AND LIABILITY UNDER THIS WARRANTY AND IN CONNECTION WITH ITS DEALINGS WITH THE Henry Roof System IS TO TAKE WHATEVER ACTION THAT MAY BE NECESSARY TO MAINTAIN THE Henry Roof System IN A WATERTIGHT CONDITION FOR THE TERM OF THIS WARRANTY. ALL PARTIES FURTHER AGREE THAT ANY CLAIM IN CONNECTION WITH THIS ROOFING SYSTEM SHALL BE UNDER THIS WARRANTY AND IF ANY DISPUTE ARISES IN CONNECTION WITH COVERAGE UNDER THIS WARRANTY, THEY SHALL BE EXCLUSIVELY RESOLVED IN ACCORDANCE WITH THE DISPUTE RESOLUTION PROCEDURE DESCRIBED HEREIN.

TO THE EXTENT OF SUCH LIMITATIONS, Henry SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES TO THE BUILDING STRUCTURE (UPON WHICH THE ROOF SYSTEM IS AFFIXED) OR ITS CONTENTS, LOSS OF TIME OR PROFITS OR ANY INCONVENIENCE. Henry SHALL NOT BE LIABLE FOR ANY DAMAGES WHICH ARE BASED UPON NEGLIGENCE, BREACH OF WARRANTY, STRICT LIABILITY OR ANY OTHER LEGAL THEORY OF LIABILITY OTHER THAN THE EXCLUSIVE LIABILITY SET FORTH IN THIS WARRANTY. INCIDENTAL AND CONSEQUENTIAL DAMAGES SHALL NOT BE RECOVERABLE EVEN IF THE REMEDIES OR THE ACTIONS PROVIDED FOR IN THIS WARRANTY FAIL OF THEIR ESSENTIAL PURPOSE.

THIS AGREEMENT IS ASSIGNABLE WITH THE EXPRESS WRITTEN AGREEMENT OF HENRY.

IN WITNESS WHEREOF, Henry, HCC and the Owner have caused this Limited Roofing System Material & Labor Warranty to be duly executed and issued to cover the roof system described in this limited roofing system material & labor warranty agreement.

Henry Company

HCC

Building Owner

By: _____
Title

By: _____
Title

By: _____
Title

Substantiating Data: Attach product data/brochures and Vendor qualifications for both specified and substitute product. Provide samples for both specified and substitute products, if applicable.

Certification: Undersigned has examined Construction Documents, is familiar with specified product, understands indicated application of product, and understands design intent of the Architect caused by the requested substitution.

Submitted by:

<u>Scott Lyon</u>	<u></u>	<u>12/17/2020</u>
(Type Name)	Signature	Date

Signature must be made by person having legal authority to bind his firm to the above terms.

Architect's Comments:

 Accepted, accepted as noted, not accepted, received too late.

Reviewed by:

<u>Architect</u>	<u>Date</u>
<u>Construction Manager</u>	<u>Date</u>
<u>District</u>	<u>Date</u>

END OF SECTION