TECHNICAL DATA SHEET

GC Epoxy Primer

Moisture Mitigating Epoxy-Based Primer

Physical Property per ASTM F3010-13	Typical Value	Test Method
Alkali Insensitivity	No effect, ph 14, after 14 days	ASTM D1308-02
Concrete RH resistance	Up to 100%	ASTM F2170-09
Solids Content by Volume	100%	ASTM D1644-2001 Method A
Adhesion	> 435 psi, substrate failure	ASTM C1583/ ASTM C1583M-04
Viscosity @ 68 °F (mixed)	1400-1800 cps	ASTM D2196-10
Moisture vapor emission rate reduction (MVER)	25lbs/24hrs/1000sf, reduced to 0.2lbs/24hrs/1000sf	ASTM F1869-10
Water Vapor Transmission	Over 98% reduction = less than 0.1 perms	ASTM E96M-05 (Wet Method)
VOC Content (maximum)	0 g/l	ASTM C1250-05 (as per C836M-10, C957M-10)

Description

Henry® GC Epoxy Primer is a 100% solids, two-component, epoxy sealer/primer.

Features

- Meets ASTM F3010-13 Requirements
- Specially formulated to be applied on saturated (up to 100% relative humidity) substrates
- Reduces moisture vapor emission rate (MVER) below 3lbs/24hrs/1000sf
- Can be applied on green (5 days after placement) concrete
- Highly alkaline resistant (concrete ph 14)
- Has no odor, solvent-free or zero VOC for LEED EQ 4.2 credit

Usage

Henry® GC Epoxy Primer is used to seal and prevent vapor drive (moisture emission) in concrete, wood, and exterior roof boards.

Application

Site conditions: All surfaces should be prepared as per the approved Henry® specification. Ensure water sealed in substrate will not affect other parts of building. Substrate moisture testing can be carried out to ASTM F2170-09 (RH) and F1869-10 (vapor pressure) but is not required. Air and substrate temperatures must be between 50 °F and 90 °F.

Surface preparation: Substrates to be coated must be free of laitance and contaminants that would impair adhesion.
Do not apply on substrates that have been treated with any type of form release agent or sealer.

- Concrete should be shot blasted or mechanically abraded
- Do not acid etch
- Surface profile must meet CSP-3, with no imperfections which would prevent the minimal film thickness being formed
- Fill all voids and bug holes
- Remove concrete reinforcing fibers
- Wood or Roof Board must be exterior grade, dry, clean and fixed with exterior deck screws
- Apply **Henry® GC Epoxy Primer**, when temperatures are constant or falling and out of direct sunlight, to minimize the risk of pinholes, blister formation or delamination due to substrate vapor pressure increase

If there are any doubts about the suitability of a substrate, further advice should be sought from a Henry® representative and a small trial area applied and tested appropriately.

Product mixing: Henry® GC Epoxy Primer Parts A (2 gallons) & B (1 gallon) are pre-measured.
Mix all Part A (resin) with all of Part B (hardener).
They must be thoroughly mixed, using an electric, slow speed (300-400rpm), high torque drill with spiral (JIFFY) mixing paddle.

Mix Ratio by Volume:

1) Pre-mix Part A (2 gallons), for 30 seconds in pail, to disperse color pigment uniformly.
   Dispense into separate, clean bucket, being careful not to hit sides.
2) Add Part B (1 gallon), taking care not to hit the sides, and mix for 1 – 1½ minutes.

Work the mixing paddle around the sides and bottom of the mixing pail to achieve a uniform, streak free, homogenous liquid.
Scrape out all the material from the mixing pail.
Do not mix new material with old, uncured material as this can significantly reduce work times. Use new pails frequently.

Pot Life @ 68 °F: 20-25 minutes. The working time of **Henry® GC Epoxy Primer** will be influenced by the length of time it is mixed (longer mixing results in shorter pot life), the substrate and ambient temperatures, and how quickly it is removed from the mixing pail and spread on the substrate.

Product Application: A mock-up can be carried out to decide the exact application rate (within Henry® guidelines) required to prevent pinholes in the cured coating and completely seal the substrate.

Henry® GC Epoxy Primer is normally applied in one coat (gray color).
It is applied evenly by notched squeegee and back rolled (at right angles to squeegee application) with a medium nap (3/8") roller.
Apply slight pressure on the roller to ensure all voids and pores are filled and remove all material puddles.
A monolithic and fully cured film must be formed.

It is then to be inspected for any pinholes or voids, which are then filled by putty knife, using **Henry® GC Epoxy Primer** and **Henry® Filler**, to form a heavy paste which can block the vapor emmission.
After application, in addition to a visual inspection, the **Henry® GC Epoxy Primer** surface can be tested to ASTM D4263 (taped plastic sheet), to ensure no moisture vapor is passing through.

Application Rate:

- 80-100 sq.ft/gal (240-300sq.ft./3 gal. kit)
- If required, second coat (red color), @ 125-150 sq.ft./gal (375-450sq,ft,/3 gal. kit)

WFT-DFT: 15 mils/coat, minimum

Re-coat and Traffic Times after application:
Minimum @ 68 °F = 4 hours, Maximum 48 hours. Colder temperatures will increase this time.
If overcoat time is exceeded, GC Primer must be abraded (to a dull finish), wiped with Acetone or MEK and clean cloths.
A second coat (red color) must be applied @ 130 sq.ft/gal (400 sq.ft/3 gal. kit).
The surface temperature of the first coat must at least 6° F above the dew point and rising. Use a surface dew point meter.

If required, the second coat (only), can be fully broadcast with Henry® approved aggregate to allow for an unlimited overcoat time or a shear bond of the next coating.

Product Restrictions and Limitations: Henry® GC Epoxy Primer will not bridge moving cracks or moving joints in the substrate.
It cannot be used for aluminum, copper, stainless or galvanized metals.
It can be rained or resist surface dampness 4 hours after installation @ 68 °F. Colder temperatures will increase this time.
If GC Primer gets wet during cure (rain, dew or fog), the surface will "bloom", evidenced by white spots that must be ground off.
It must then be re-applied.

NOTE: Before using **Henry® GC Epoxy Primer**, please refer to Safety Data Sheet (SDS). Ensure the same safe working methods are followed for all persons in the work area. Wear suitable protective clothing, butyl rubber or nitrile gloves and safety goggles with side shields during mixing and application.

When **Henry® GC Epoxy Primer** is applied in enclosed areas without natural ventilation, forced ventilation must be arranged. Avoid strong concentration of vapor as well as direct contact with skin or eyes.
If concentration exceeds recommended limits in SDS, a NIOSH approved respirator (OSHA 29 CFR 1910.134) is required.
Uncured polymers and curing agents may be alkaline, toxic or both. They may cause allergic reactions or hypersensitivity reactions.
Contact with skin – wash immediately with soap and water.
Contact with eyes – rinse immediately with lots of water and seek medical attention.

Clean-up

Clean-up of tools and equipment may be accomplished by using, Acetone, or MEK. Read and follow all Health and Safety instructions on SDS. Wash body with soap and water. Ensure all materials are mixed and cured before disposal, in accordance with federal, state and local regulations. Dispose of all packaging in accordance with federal, state and local regulations.

Packaging

KIT = 3 gallons in plastic pails
Part A Resin = 2 gallons
Part B Hardener = 1 gallon

Colors

Gray
Red

Shelf Life/ Storage

One year in unopened containers stored between 55 °F and 90 °F under dry, ventilated conditions and out of direct sunlight. Lower temperatures may cause crystallization. Storing the material at a higher temperature may reduce its shelf life. Keep in an upright position and do not over stack.