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## **Cleaning & Sealing Fundamentals**

This technical sheet aims to address the main issues regarding cleaning and sealing Heritage Collection™ Designer Concrete Brick. Further information for cleaning and sealing is available through the manufacturer's product data sheets. If questions arise or help is needed, please contact your Heritage Collection™ Designer Concrete Brick representative.

# Basic Steps of the Cleaning & Sealing Process

- Dilution
- Clean a Test Panel
- Pre-wet the Wall
- Apply Cleaner
- Final Rinse
- Sealing Concrete Brick



## **Cleaning Fundamentals**

### **Good Block-laying Practice**

Care should be exercised to keep walls as clean as possible during construction, as this will aid in final cleanup. Avoid smears, droppings, and over-brushing joints. Avoid grout spills flowing on masonry faces.



Protect masonry walls to prevent exposure to job-site contaminants and damage.

### **Progressive Cleaning**

Heritage Collection™ Designer Concrete Brick can withstand customary job-site stains and can be efficiently cleaned during the "final cleaning" phase, however, better-quality results are attained by employing progressive cleaning. Excessive or thick mortar droppings and smears, and any grout soiling should be removed during construction.

Brush off or use hand tools to knock down or pry away mortar "chunks" once firm, but before it sets hard (care must be taken not to scratch or mar the face of the brick).

Clean smears and splatters with a bucket of water and non-aggressive brushing.

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## Cleaning Fundamentals (Continued from page 1)

### **Cleaning Solutions**

Typically, concrete brick must be cleaned with a less aggressive cleaning agent than allowed on clay brick. Chemical cleaners containing hydrofluoric or muriatic acid can not be used because it will result in etching and dissolution of units.

Never use abrading methods, such as sand blasting or other abrasive materials. Clean concrete masonry units as early as possible, while the mortar stains are still fresh. Clean using a recommended buffered acid cleaner that dissolves fresh mortar, while not damaging the fully hardened concrete bricks.

### Approved cleaners for Heritage Collection™ **Designer Concrete Brick:**

Heritage Collection concrete brick should be cleaned with Prosoco Sure Klean Custom Masonry Cleaner, or EaCo Chem NMD 80, following the manufacturer's dilution ratios, and application recommendations. Both cleaners are concentrated cleaning solutions designed for dilution. Always pour cold water into an empty bucket first, then carefully add product. Do not use hot water, and use only polyethylene or polypropylene buckets because acidic materials and fumes will attack metal buckets The cleaner should be applied using a standard pump sprayer or low pressure sprayer, not to exceed 50 psi of pressure.

### **Dilution**

Cleaners are supplied as concentrated solutions designed for dilution. Dilute cleaners following manufacturer's product label or printed product data sheet for use on appropriate masonry elements incorporated into wall.

### **CAUTION:**

Chemicals can cause harm to the operator, building materials and the environment. Never add water to acid, always add acid to water. Never use hot water for mixture. Never use metal buckets; use sturdy plastic buckets.

### Clean a Test Panel

Clean a test panel made from the exact material as the project itself prior to beginning a fullscale cleaning operation. If a test panel is not possible, test the cleaner on an inconspicuous spot on the building.

Pretest diluted cleaner's effectiveness on stains and potential adverse reaction on the concrete brick and other masonry products.

Secure cleaned test panel approval as a quality control measure.

### **Preparation**

Mask or protect adjacent non-masonry building surfaces, hardware, windows, vehicles, etc. not intended to be acid cleaned. Protect landscaping from direct contact with cleaner.

### Timing

The longer mortar soiling is left on the surface of the brick, the more difficult the clean-down becomes. Clean concrete masonry units as early as possible, while the mortar stains are still fresh. Masonry surfaces clean most effectively within 7-14 days and should not go longer than 14-28 days after installation. Ideally, all caulking and sealing materials should be in place and cured before cleaning to prevent water from entering the wall system.

### **Temperature**

Best cleaning results are obtained when air and masonry surface temperatures are 40° F or above. Do not clean when temperatures are below freezing or will be overnight.

Do not apply to frozen surfaces.



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## **Cleaning Application**



### **Pre-wet the Wall**

Specified cleaners are formulated to be applied to a wet masonry wall. It is critical to keep the wall thoroughly wet throughout the cleaning process. Pre-wetting fills the microscopic pores in the concrete brick, thus preventing the cleaner from soaking in and remaining on the surface where it targets the stains.

Pre-wet (do not soak) with clean water utilizing a low pressure spray (below 50 psi).

### **Apply Cleaner**

Apply the diluted cleaner directly to the masonry surface using a low pressure sprayer or with bucket and brush. Do not scrub mortar stains or brick surfaces during this application. Apply SureKlean® cleaners working from the bottom to the top.

Apply NMD80 Cleaner working from the top to the bottom.

### **Dwell Time**

Allow cleaner to dwell on the masonry per manufacturer's recommended initial dwell time. Reapply cleaner without rinsing. After second application, gently scrub or scrape areas of heavy soiling using wood blocks or non-metallic scraper (care must be taken not to scratch or mar the face of the brick). Extended dwell times usually reduce the amount of scraping that may be required.

### **CAUTION:**

Do not allow the cleaning mixture to dry on the masonry surface.

If the masonry surface begins to dry out, apply additional diluted cleaner or begin the rinsing process.

### **Final Rinse**

Flush cleaning solution from the masonry surfaces with clean water.

Rinse SureKlean® cleaners working from the bottom to the top.

Rinse NMD80 Cleaner working from the top to the bottom.

A thorough rinsing will determine much of the quality of the job. Volume of water is more important than water pressure. Rinse with enough water and pressure to flush spent cleaner and dissolved soiling from masonry surfaces. Recommended rinsing criteria for Heritage Collection™ Designer Concrete Brick: Water flow rate of 4-8 gallons per minute. Water pressure between 400-1000 psi. Use a wide tip fan spray no less than 25 degrees; preferably 40 degrees.

Keep spray tip a minimum 8 inches from the face of the masonry.

### **CAUTION**

Do not use water pressure to "blow off" mortar chunks or soiling.

Do not work too close to surface or with too high of water pressure, as surface marking or damage may result.



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### **Sealing Fundamentals**

### **Sealing Concrete Brick**

Heritage Collection™ Designer Concrete Brick are manufactured containing an integral water repellent.

- For Veneer Units: Sealer is not required.
- For Single-Wythe Units: County Materials
  recommends that a clear water repellent sealer
  be applied to all single-wythe concrete masonry
  units to further prevent water penetration into
  the CMUs and mortar, to provide for a cleaner
  façade, to protect from environmental dirt and
  graffiti, and enhance color.

### **Preparation**

Mask or protect adjacent non-masonry building surfaces, hardware, windows, property, vehicles, etc. from product, residue, fumes, and wind drift.

### **Timing**

After masonry surfaces are cleaned and dry and mortar is cured, apply sealer. The standard rule before sealing masonry walls is to allow the mortar to cure for a minimum of 21-28 days.

### **Temperature**

Best sealing results are obtained when air and masonry surface temperatures are between 40-90° F.

Do not apply to frozen surfaces. If freezing conditions exist before application, allow masonry surfaces to thaw.

## **Sealing Application**

### **Apply Sealer**

Apply a single coat of clear drying, water based, silicone emulsion sealer at manufacturer's recommended coverage rate.

**Recommended product:** Weather Seal Blok-Guard® & Graffiti Control II by PROSOCO. Apply wet-on-wet working from bottom to top using brush, roller, or low-pressure spray (20 psi).