



EaCo Chem

THE COMPLETE CURE

**PROFESSIONAL SOLUTIONS FOR
NEW CONSTRUCTION CLEANING**

THE **PROFESSIONAL'S** GUIDE

**Dealing with the industry's most difficult problems with
troubleshooting, how-to instructions, and equipment to use.**

THE WAVE OF THE FUTURE

ONE CHOICE...BECAUSE IT WORKS!

THE BEST INFORMED CHOOSE



EaCo Chem has been producing exceptional cleaning chemicals for decades with nothing but the best results. Our chemistry has been approved worldwide on many projects. Professional cleaners that choose to stay ahead of their competition have one thing in common - the desire to be the best. That includes using the best chemicals.



Quinnipiac University, CT Crescent Dorms

INDUSTRIES WE SERVE:

- NEW CONSTRUCTION
- RESTORATION
- HARDSCAPE
- WINDOW RESTORATION
- HOUSE & DECK
- PAINT STRIPPING
- FLEET WASHING

THE COMPLETE CURE



MANGANESE

NEW CONSTRUCTION ISSUES SOLVED!



VANADIUM

CALCITE PRESOAK



CALCITE

EF-FORTLESS



EFFLORESCENCE

WHITE SCUM PRESOAK



WHITE SCUM/HAZE

PROFESSIONAL SOLUTIONS FOR NEW CONSTRUCTION CLEANING

THE WAVE OF THE FUTURE

WHAT IS THE "COMPLETE CURE"?



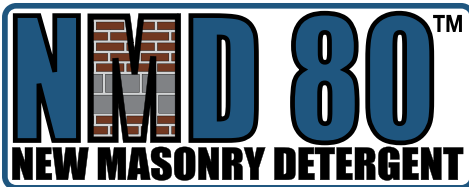
EF-FORTLESS

CALCITE
PRESOAK

WHITE SCUM
PRESOAK

The "Complete Cure for New Construction Issues" is a series of products and tests designed to resolve virtually any staining issue that may arise due to the new construction process: efflorescence, calcite, white scum, haze, vanadium, manganese, etc.

While we cannot specifically identify the cause of these stains, we have compiled enough information and history to confidently show where the stains are more commonly found. We are also able to identify the chemical make-up of most of the stains.



NMD 80 is a buffered detergent-based solution designed for the cleaning of new masonry structures. NMD 80 can be used on virtually any type of brick, block, stone, cast stone and pre-cast. Although NMD 80 is an acid, it will not harm glass or anodized aluminum when used as directed. There is no scrubbing necessary.

NMD 80 is best applied through an EC Jet, which will dilute the product 4 parts water to 1 part solution (4:1). When following the EaCo Chem process, NMD 80 will allow the user to increase square foot production and reduce labor.

Note: Always read the product data & specification sheet for details.

PREVENTION

The most important point to make about the "Complete Cure" is to prevent the problems from the start. Many of the issues that arise from new construction cleaning are a result of:

- Improper cleaning method
- Leaving the un-capped wall exposed to the elements
- Using unbuffered acids for your cleaning chemical
- Not allowing the wall to thoroughly dry

While we offer solutions to many issues associated with new construction cleaning, we offer a great system for prevention. The system includes our buffered new masonry cleaner, NMD 80™, along with our application process that is safe for almost all substrates.

The process - beginning at the top of the wall:

1. Lightly pre-wet (do not soak).
2. Using the EC Jet applicator, apply NMD 80™ (4:1) to the whole drop being cleaned.
3. After the first application, scrape the large chunks from the first 8 ft section.
4. Check the smears and tags to see if they crumble easily. N type mortar generally only requires one application. Harder mortars and extensive residue will benefit from repeated applications.
5. If needed, repeat application to melt remaining residue and extend dwell time.
6. With NMD 80™, the longer it stays wet on the wall, the better the results and the least amount of rinsing is needed.
7. Begin rinsing from top to bottom. Rinse style and pressure will vary depending on substrate. Use long, even strokes that overlap each other.



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EF-FORTLESS

EFFLORESCENCE

THE PROBLEM...

Efflorescence is often described as a white or ivory chalk-like deposit on masonry walls. Efflorescence will generally disappear when wet and re-appear when dry (see water test).

Efflorescence will most commonly form on brick, block, retaining wall blocks, pavers and manufactured stone. While normal rainfall should not create issues, extreme conditions may contribute to the problem. Prior to removal of efflorescence, precautions should be taken to prevent future occurrences. Some preventative measures include:

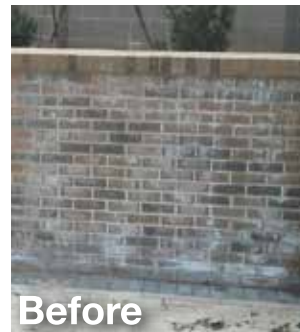
- Check for cracks in the cap-stones or mortar. If there are, make necessary repairs prior to cleaning.
- Check to see if the weep holes allow proper drainage from the wall.
- Allow the wall to thoroughly dry so all of the chlorine ions are able to migrate to the surface.



THE CURE...

EF-FORTLESS

EF-Fortless is a soap solution that counteracts efflorescence. The product is mildly acidic and safe for virtually all surfaces. When EF-Fortless stops foaming, the efflorescence is gone. This product does not need to be rinsed from vertical surfaces.



Once you have taken preventative measures to keep the water out and the surface is dry, removing the efflorescence should be simple. **EF-Fortless** applied to the surface undiluted or **NMD 80™** diluted (4:1) will dissolve powdery efflorescence and help prevent its return.

CLEAN-UP EFFLORESCENCE

Clean-up efflorescence is caused by chlorine ions left on the masonry surface by unbuffered acids used in the cleaning process. As the ions react with moisture, a calcium chloride substance rises to the surface and efflorescence is created.

In the case of clean-up efflorescence, it will most likely disappear in time, however most building owners will not accept the property until it is removed. If **NMD 80™** was not used for the initial clean, it may be used to remove the efflorescence.

Please note that not everything white on the wall is efflorescence. There are many other stains that can resemble efflorescence, but are chemically different. Please refer to our "Complete Cure Testing Procedures" on pg. 6 for more details.

*** Always refer to product data sheets prior to using any chemical. Always clean a test area and allow to dry before determining suitability of any cleaning product.*

THE COMPLETE CURE

THE WAVE OF THE FUTURE

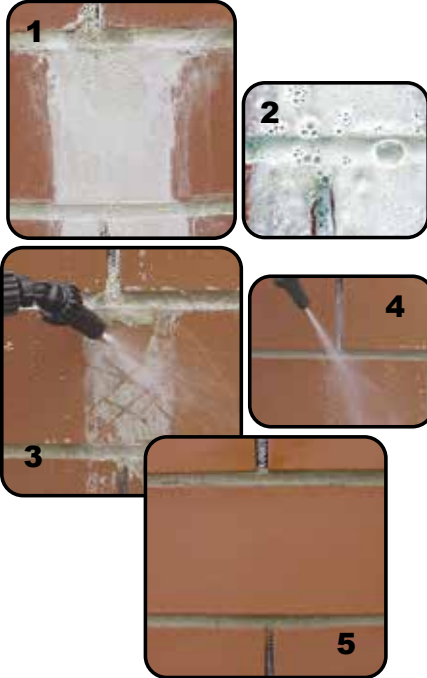
CALCITE PRESOAK

CALCITE & LIME RUN

THE PROBLEM...

Calcite, or calcium carbonate, will appear as a thick whitish deposit which usually builds over time. Calcite most commonly forms on clay brick, when excess moisture evaporates and leaves behind a heavy calcium residue.

This residue bonds to the masonry surface and the joints and can be very difficult to remove. More commonly found on brick, scraping alone may remove some from the surface, however the residue that has bonded to the surface can only be removed chemically.



Lime Run occurs as a steady release of calcium soaked water that creates a streak. Generally, lime run is treated just like calcite. When it is caught early enough, it can be dealt with using the normal washing process of **NMD 80™** diluted 4:1.

Photo 1 shows lime run formed under a weep hole in a retaining wall. Photo 2 shows **Calcite Presoak** bubbling while it softens the hard mineral layer. After the foam collapses, repeat the application.

Photos 3 & 4 show the remaining hard deposits being sprayed with **NMD 80™** at 4:1 with a five minute dwell time. Once a scratch test indicates the lime is crumbly, rinse using high or low pressure. Repeat with **NMD 80™** as necessary.

Photo 5 shows the lime run completely removed after a clear water rinse!

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THE CURE...

CALCITE PRESOAK

Calcite Presoak is a first step presoak to allow removal of calcium carbonate (to be followed with NMD 80™). Calcite Presoak will also remove lime run.

Calcite Presoak (only for clay brick), applied undiluted to the affected areas, will start to soften the calcium carbonate. In a severe situation like the one pictured to the right, multiple applications of **Calcite Presoak** may be needed. Allow each application to sit on the surface for approximately five minutes. When small "pinholes" appear in the deposit, **Calcite Presoak** has penetrated.

After the presoak has penetrated and the deposit has been softened, apply **NMD 80™** (undiluted to 4:1 depending on the degree of the deposit) without rinsing in between. Pressure wash the area and the residue will be removed, leaving the original surface and mortar.

Calcite removal from concrete masonry units (CMU) use **White Scum Presoak** followed with **NMD 80™**.



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**WHITE SCUM
PRESOAK**

WHITE SCUM

THE PROBLEM... White scum, or calcium silicate, has traditionally come as the result from improper use of a new masonry cleaner reacting with brick and forming insoluble salts. This is created by un-buffered hydrochloric acid combining with silicates and clay.

White scum is generally found on brick, block or concrete and can come from the center of the masonry unit. The appearance of white scum can be very similar to efflorescence. The water test will be necessary to determine the proper approach to removing these stains.

Once it is determined that the stains are actually white scum, removing them is relatively simple. Apply **White Scum Presoak** to the stained areas and allow a five minute dwell time. You will see heavy white foam that will soon disappear. The chemical is still working within the surface.

Multiple applications of presoak may be necessary depending on the degree of staining (properly test prior to full scale cleaning). When the presoak is no longer needed, apply **NMD 80™** (4:1) without rinsing the presoak off. Allow a five minute dwell time and then pressure rinse off. Repeat the process on any remaining stains.

Hardscapes

White scum can also appear on dry-stack retaining walls and pavers. These stains can arise from the shrink wrapping process that leaves behind water stains in some areas. These stains are considered light and easily removable.

White Scum Presoak can be diluted for this purpose.

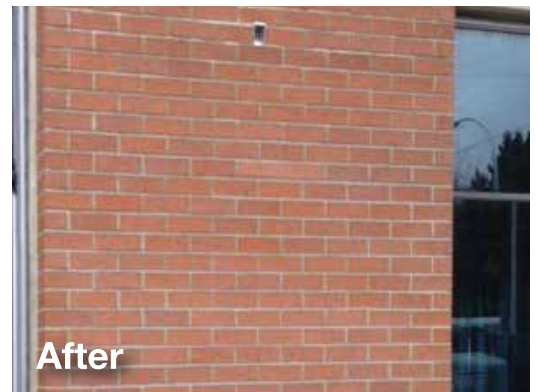
When heavy white scum appears on pavers or retaining walls, use the **White Scum Presoak** undiluted. **NMD 80™** can also be used undiluted on the remaining deposits.

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THE CURE...

**WHITE SCUM
PRESOAK**

White Scum Presoak is a first step to removal of calcium silicate (to be followed with **NMD 80™**). **White Scum Presoak** also works great for cleaning hardscape products.



PROFESSIONAL SOLUTIONS FOR NEW CONSTRUCTION CLEANING

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VANADIUM & MANGANESE

THE PROBLEM...

Vanadium and manganese are naturally occurring minerals in certain seams of clay. Like soluble salts, they are released when an abundance of water migrates through a masonry surface. The stains left behind appear either green or brown in most cases.

THE CURE...



OneRestore® is a commercial grade restoration detergent designed to restore virtually every type of exterior surface, including limestone, terra cotta, concrete, EIFS, glass, anodized aluminum, brick, block and stone. The main focus of OneRestore® has always been to successfully clean any surface, regardless of the stain.

These stains are commonly found on clay brick and are relatively simple to remove. One application of **OneRestore®** should remove them instantly depending on the severity of the stains. Generally a five to ten minute dwell time, followed by a pressure wash rinse will remove these stains.

Using **NMD 80™** on the initial clean can help prevent these stains from rising to the surface.

*** Note - if another chemical method was used to try and remove these stains, it may have set the stains further into the surface. Additional applications and longer dwell times may be needed.*

INTEGRAL WATER REPELLENT AND ADMIXTURES

Recent testing has shown us that certain brick or block with integral water repellents or admixtures are getting a white deposit on the surface that looks similar to calcite or white scum. We recommend following our complete cure testing procedures.

Note that step 4 indicates that the stain may not be calcite or white scum. **OneRestore®** will be a great option to remove these stains.

In Oklahoma, a contractor faced a similar situation and had no answers. After speaking to us, he tried **OneRestore®** to remove his stains with 100% success.

*** Always refer to product data sheets prior to using any chemical. Always clean a test area and allow to dry before determining suitability of any cleaning product.*



ONE CHOICE...BECAUSE IT WORKS!

COMPLETE CURE TESTING PROCEDURES

STEP ONE:	EXPECTED REACTION	NEXT STEP
Conduct the water test: Apply water to an affected area.	Stain should either disappear or still be visible after water is applied.	If stain disappears, proceed to step two; if stain is still visible, proceed to step four.
STEP TWO:		
Apply EF-Fortless over an affected area.	Heavy white foam.	Proceed to step three.
STEP THREE:		
Re-apply EF-Fortless to the same area as the initial test, but covering a slightly larger area.	No foam where EF-Fortless was initially applied.	If no foam on initial area, continue to clean the entire wall with EF-Fortless .
	More foaming where EF-Fortless was initially applied.	If initially treated area foams again, proceed to step four.
STEP FOUR:		
Apply Calcite Presoak (clay brick only) and White Scum Presoak to two different deposits. Rinse any rundown with a garden hose or sprayer. Allow to dwell for 5 minutes. Re-apply presoak, following the same instructions without rinsing the first application.	Heavy white foam on first application, but not the second application.	If there is no foaming on second application of the presoak, it is not calcite or white scum proceed to testing OneRestore ®.
	Heavy white foam on both applications.	For heavy deposits, step five. For lighter deposits, step six.
STEP FIVE:		
Apply NMD 80™ diluted 4 parts water to 1 part solution (4:1) without rinsing the presoak. Allow to dwell for 5 minutes.	Heavy white foam and deposit reduction. (If you see green foam, rinse just those spots immediately).	Which ever area has been removed the most, repeat process of presoak and NMD 80™ again with the appropriate presoak.
	When there is no foaming, it is time to rinse. Pressure rinse according to surface allowance.	**Multiple applications of presoak may be necessary prior to NMD 80™ .
STEP SIX:		
Apply NMD 80™ diluted 4 parts water to 1 part solution (4:1) without rinsing the presoak. Allow to dwell for 5 minutes.	Check for foaming. Any additional foaming indicates additional residue.	Repeat steps four and six with appropriate presoak until no foaming indicates complete removal.
	When there is no foaming, it is time to rinse. Pressure rinse according to surface allowance.	

NOTE:

This testing process often takes more time for a single spot removal than it takes to clean a large area. The reason is the wait time during the testing period. When actually cleaning, you would just apply chemical to as much area as you can without the product drying (at least five minutes) and then follow with **NMD 80™**. This process does not entail any standing around and waiting, and in the right conditions (no quick drying) you may constantly apply in an up to 20 minute cycle of presoaking and cleaning, followed by a pressure rinse.



Before



After

THE COMPLETE CURE

THE WAY OF THE FUTURE

THE WATER TEST

WHAT IS THE WATER TEST?

The water test is a simple way to determine if you are dealing with efflorescence or something else. For this test, all you need is a spray bottle with water.

If the area is sprayed with water and the stains disappear, your first step will be **EF-Fortless** (see step 1 in chart on previous page). If the stains are still visible after wet, **EF-Fortless** will not be your first step (skip step 1 and go directly to step 3).

These pictures to the right demonstrate when to skip step 1. As you will see in the picture at the bottom right, water was applied to an area and the stains are still very visible. This would tell you it is not efflorescence and you should move directly to the presoaks.



EQUIPMENT TO USE

EC Jet



- NO BRUSHING
- NO ETCH
- NO YELLOWING
- NO SANDY JOINTS
- NO EFFLORESCENCE

- EASY RINSE DOWN
- OVER SPRAY IS MINIMIZED
- SAVES TIME & MONEY
- RESISTS CORROSION FROM AGGRESSIVE CHEMICALS

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NMD 80™

NEW MASONRY DETERGENT



The Offices at Mayfaire, NC

- **Iron Spot Brick**
- **Stone**
- **Red Brick**
- **Buff Brick**
- **Precast**
- **Limestone**
- **Granite (unpolished)**
- **Windows**
- **Burnished Block**
- **Split Face Block**
- **Painted Surfaces**
- **Colored Block**
- **Colored Mortar**
- **Synthetic Stone**



**CLEANER
FASTER
SAFER**

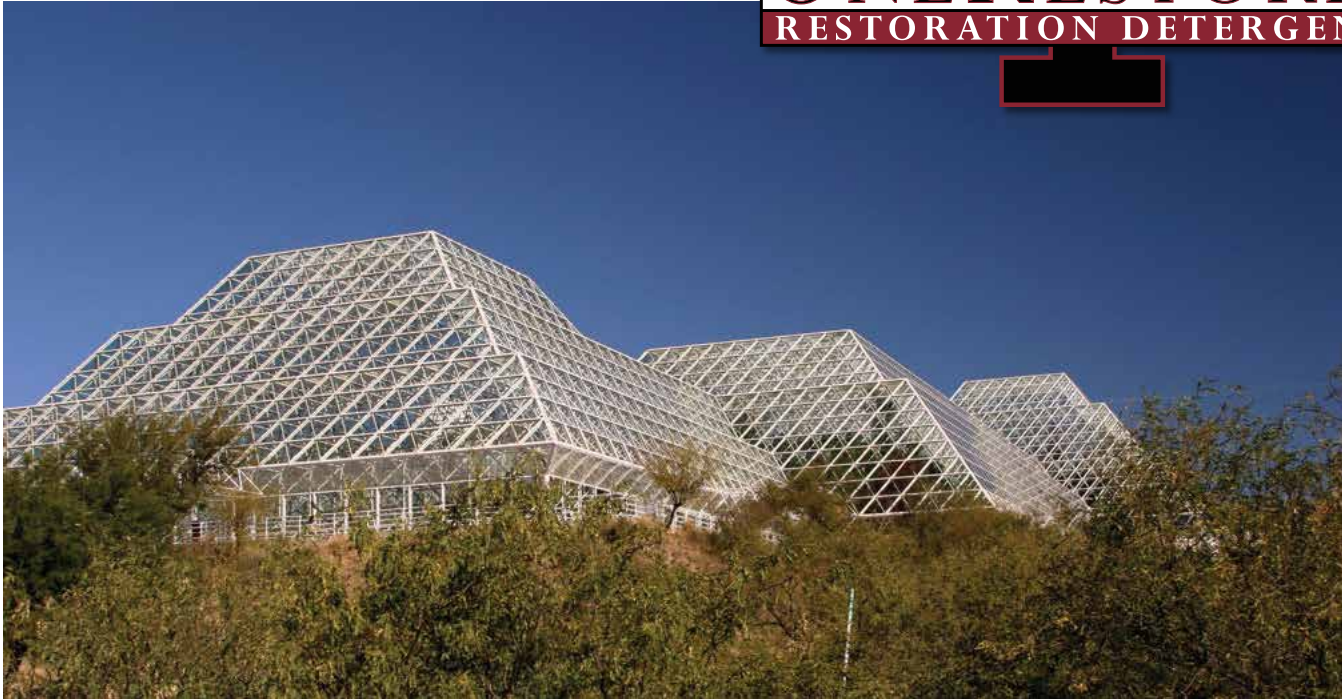


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RESTORE EVERYTHING SAFELY®

1 ONERESTORE® RESTORATION DETERGENT 1



The Biosphere 2 - Oracle, AZ

- **Limestone**
- **Sandstone**
- **Brownstone**
- **Marble (unpolished)**
- **Precast**
- **Exposed Aggregate**
- **Cast Stone**
- **Poured Concrete**
- **Brick**
- **Block**
- **EIFS**
- **Terra Cotta**
- **Granite (unpolished)**
- **Alucobond**
- **Paint**
- **Glass**
- **Anodized Aluminum**
- **Vinyl**
- **Metals**
- **Wood**
- **Composite Decking**
- **Stucco**
- **Sealer Cleaning/Removal**



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