



Before and after shot of rust that was cleaned with GSR.



Brick, concrete, and glass can all be cleaned with EaCo Chem's GSR.



Pollution stains were cleaned from the right side of this granite with GSR.



The left side of this Terra Cotta was cleaned with GSR.

Coverage Rates

Coverage rates will vary from 100-250 sq. ft./gal. depending on the surface porosity, texture and severity of staining.

Characteristics

Appearance & Odor: Water white liquid, acrid odor

Physical State: Liquid

pH: 2.0

Vapor Pressure (mmHg): N/A

Vapor Density (air=1): N/A

Boiling Point: 210 deg F

Freezing/Melting Point: N/A

Specific Gravity (WATER=1): 1.09

Evaporation Rate: N/A

Solubility in Water: Complete

Dilutions

1:1 to 10:1 is the best application range for restoration work. There is

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danger of burning the surface if the product is used repeatedly straight. Use straight to remove oil spots on concrete parking lots or structures. Use 8:1 to 20:1 for lane cleaning or sidewalk cleaning without heavy oil stains.

Note: Dilution's will vary based on application and surface to be cleaned.

Surface and Air Temperature

To avoid harm to masonry, do not clean when temperatures are below freezing or will be overnight. Best cleaning results are obtained when air and masonry surface temperatures are 40 deg. Fahrenheit or above. If freezing conditions exist prior to application, allow adequate time for masonry to thaw.

GSR

GLAZED SURFACE
RESTORATION DETERGENT

SAFE, SIMPLE AND PROFITABLE ^{HIGHLY}

EaCo Chem



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The Pittsfield Building (cover photo) loomed as a huge challenge for the cleaning contractor. Forty stories of terra cotta and thousands of windows covered with decades worth of dirt and grime. Adding to the challenge was the fact that this building was located in downtown Chicago, a city noted for its notoriously windy conditions.

The solution? EaCo Chem's Glazed Surface Restoration Detergent (GSR). Specially formulated for glazed brick and terra cotta cleaning, GSR is capable of much broader usage and its clean is essentially equal to any hydrofluoric acid-based product. **If used properly, it will not etch glass and it can also be used to clean most porous surfaces as well.**

With GSR's safety on glass, the contractor on the Pittsfield Building saved thousands of dollars in time and expense associated with covering glass and other sensitive surfaces. In addition, with Chicago's famed high winds constantly swirling, they didn't have to worry about overspray affecting the windows or surfaces of nearby buildings. **Most impressive was that the contractor's 2-man crew was able to clean an more than 3,000 square feet of exterior surface each night with exceptional results.**

Safer than HF but just as strong

GSR is a very effective non-hydrofluoric (HF) acid restoration detergent that was designed to be used on hard face brick and concrete where HF is likely to burn the surface. GSR offers the strength of HF but with a higher degree of safety and the ability to work without covering glass.* GSR's acid blend is often more effective than HF at removing the black mineral stains that occur on glazed surfaces with almost no chance of burning.

While specially formulated for glazed brick and terra cotta cleaning, GSR is capable of much broader usage including concrete and siding as well as for removing specific stains such as white scum, oil and rust. GSR is



The historic 40-story Pittsfield Building in Chicago cleaned with GSR. Years of pollutants and stains were easily and cost effectively removed, allowing the building's delicate terra cotta tiles to shine like new.

Siding (aluminum and vinyl)

GSR will remove virtually any dirt, soil, or stain that is on vinyl or aluminum siding. Used properly, GSR is safe on paint and glass. On houses, there may be stains under the eaves. These are generally from airborne solids, clay or dirt. GSR is optimized to remove these stains without covering or damaging glass or glaze. It was designed for application with a low pressure sprayer using hot or cold water. The trick to brushless cleaning is that the product must be placed on the surface using two quick applications which leads to complete soil release most of the time. High pressure rinsing is recommended.

White Scum

White scum is often confused with efflorescence. Yet, the two are very different. Unlike the chalky-white efflorescence that often occurs on buildings, white scum is insoluble to water and most-acid-based cleaning solutions. It's also very difficult to diagnose since it looks very much like efflorescence and calcite.

White scum is caused by masonry detergents reacting with minerals within the brick. This results in the creation of an insoluble salt formation. GSR is excellent for removing white scum. Use one or two applications of GSR to soften the hardened substance prior to using a final application of NMD 80.

Oil

Using GSR at 4:1 to 10:1 is great for softening and floating a wide variety of soils. It will also penetrate porous calcium-based substrates very effectively. GSR will provide spectacular release of deep stains in any average application.

Rust

GS Restoration will remove rust stains from concrete. Apply the product at a dilution range of 4:1 to 10:1 with a low pressure spray and rinse with a high pressure washer.



GSR is excellent at removing white scum, like seen in the photo above.



GSR was used on the area inside the circle on this oil stain on a concrete floor.

Concrete

If you had a rusting roof, perhaps the last thing you would be concerned about was a concrete parking lot. But that's exactly what happened at an Industrial Park complex in Kennison, GA. Corrosion on a metal roof created rust that traveled through downspouts and severely stained a concrete parking lot. As rusty water continued to flow, the stains grew larger and larger.

Coast and Valley, a contractor from Norcross, GA, was called into rectify the problem. They tested a number of products and combinations and settled on EaCo Chem's GSR and NMD 80 products. The most severe rust spots were pretreated with NMD 80 straight and followed with an application of GSR. Both were applied with a Flowjet electric sprayer.

The results were impressive EaCo Chem's products helped Coast & Valley remove the unsightly rust and returned the parking lot to its original condition. For the most part, the burnt orange hue was gone and its natural gray color was back.



The Spray On/Spray Off cleaning method makes GSR ideal for cleaning hard to reach places.



Before and after shots of a parking lot that was stained by rust and cleaned with an application of EaCo Chem's GSR followed by NMD 80.

GSR will melt rust and oil stains on concrete quickly. The product cleans concrete with minimal etch, therefore reducing the risk of future staining. The best application range is from straight to 10:1 on a prewet surface. The best use of GSR is two applications sprayed on several minutes apart without allowing the product to dry or rinsing between.

generally safe around glass and has been used on hundreds of buildings without covering the windows and doors. **One caution, however, is that it must not be allowed to dry on the surface.** It should be rinsed immediately. This product will mark anodized aluminum so precautions must be taken when used around this substrate.

**When used as directed.*

An often mistaken aspect of cleaning chemistry is the notion that it's as strong as it will ever get when it leaves the factory. All liquids being applied as restoration detergents contain water and water will and does evaporate. As this evaporation process takes place, it leaves the remaining chemical solids reacting on the surface in a higher, more concentrated form (stronger than right out of the bucket or drum). Such a highly concentrated chemical is likely to cause a burn on the surface.

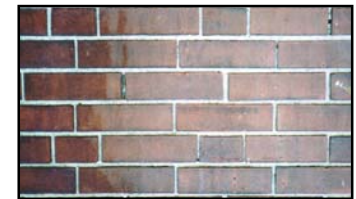
GSR used properly will not harm glass or plants and is very safe to the applicator. It is essential, however, to avoid this evaporation concentration. Wetting and rinsing will maintain dilution which makes the product non-damaging.

Glazed Brick

Glazed Brick is smooth in appearance and has a finish that uses the same raw materials that are in glass: Silica, flux and water. Fired to high temperatures, it will have a dense finish that does not absorb water. This finish is similar to glass and can burn just as easily. To guard against burning the surface, we generally recommend using two mild applications rather than one very strong one.

Certain types of glazes have a tendency to absorb metallic or pollution stains. These stains tend to be black.

Since a glazed surface is not very porous, there is not much benefit in prewetting it. When applying GSR with a sprayer, you should pay attention to rinsing any areas where overspray may land.



Left is the dramatic results of GSR used on brick. Above is haze on the same brick caused by a competitor's product.

GSR may be used in high concentration on those stains that you need to solubilize and rinse away. Apply top to bottom or bottom to top, making sure to control any overspray. Careful rinsing and a “double soap” application (applying the chemical twice to the same area without rinsing between applications or allowing it to dry) will deliver excellent results for glazed brick restoration.

Different stains will require different dilutions or even uncut product to be used. That is why we always recommend a test. After a thorough soap application, rinse with a pressure washer to remove the softened soils. Generally, one application process should be enough if your dilutions are correct. If not, resist the temptation to go stronger and repeat the process using an increased soak time.

If a stain is not completely removed or leaves shadows, it has likely penetrated deep into the brick. The first cleaning process will create a wet area in this porous portion of the brick and so it will stay wet longer. Reapply the soap in this area while you clean another area, keeping it wet on the surface. Slowly rinsing with high pressure is the best way to pull out a deep stain.

Terra Cotta

The Pittsfield Building story is a great example of just how effective GSR is on Terra Cotta. In fact, as part of the renovation process, many pieces of damaged terra cotta needed to be replaced.

Yet, when the new terra cotta was placed beside the older, freshly cleaned pieces, it was virtually impossible to tell them apart.

Another large project in which GSR was equally effective was the The Fairmont Hotel in New Orleans. The danger of burning the surface was extreme as the facade was terra cotta and the hotel had more than 1,000 100-year old hand floated



Closeup of the terra cotta front of the Fairmont Hotel.



St. Joseph brick being cleaned with GSR on the Fairmont Hotel.



A competitor's unsuccessful test patches on the Fairmont Hotel in New Orleans, LA.

windows. The inner court yard was made of very porous St. Joseph's brick with bad atmospheric staining.

A competitor had put up an array of 14 different test panels, none of which were effective in cleaning the soil. EaCo Chem recommended GSR to do a presoak on the brick followed by another application of the soap without rinsing in between, followed by a pressure wash rinse.

The superintendent on the job, Tom Neelings of D. Zhelinsky in California ran tests with the product and settled on a double straight application for the St. Joseph's brick and a 1:1 dilution for the terra cotta. He further tested the effects of the product on the windows and chose not to cover the glass. This of course profoundly affected his bottom line because now he was saving thousands of dollars in costs related to covering all of the windows.

The final results were that this 14-story building that spans an entire city block was cleaned and beautified with minimal inconvenience as the work progressed during daylight hours. GSR made glass and chemical burn to the building a nonfactor and brick stains were removed without hydrofluoric acid. In addition, the final chemistry cost was 35 percent below projections because NMD 80 was used to clean the masonry after pointing.



The Fairmont Hotel in New Orleans, LA was cleaned with GSR. This included the hotel's terra cotta facade.