

PUMP STATIONS · AERATION BASINS

· LIFT STATIONS · HEADWORKS

SAUEREISEN

THE
ULTIMATE
RESTORATION
and
PROTECTION
for WASTEWATER
INFRASTRUCTURE

PRIMARY SETTLING TANKS · SLUDGE TANKS · EFFLUENT CHANNELS · MANHOLES · INTERCEPTORS · SCUM TROUGHS · SECONDARY TREATMENT TANKS · JUNCTION CHAMBERS

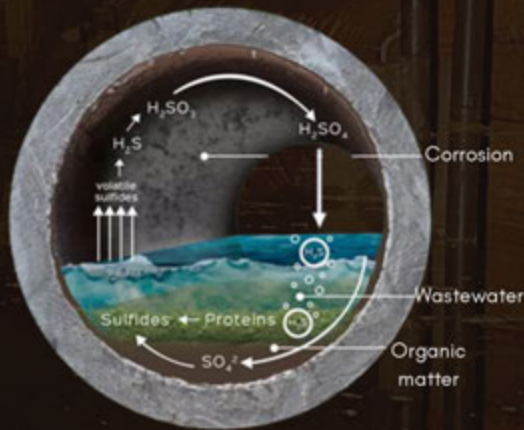
· PUMP STATIONS · CLARIFIERS · AERATION BASINS · WET WELLS · MANHOLES · GRIT CHAMBERS · DIGESTERS · LIFT STATIONS · CLARIFIERS · WET WELLS · EFFLUENT CHANNELS

CLARIFIERS · AERATION BASINS · WET WELLS · MANHOLES · GRIT CHAMBERS · DIGESTERS · LIFT STATIONS · SLUDGE TANKS

What is BIOGENIC CORROSION?

Wastewater contains organic matter that undergoes anaerobic decomposition in low-oxygen environments. During this process, **hydrogen sulfide gas (H_2S) is produced** which rises into the headspace of sewer systems, wet wells, and treatment tanks of sewer system collection and treatment structures. This promotes the growth of *Thiobacillus*, **a sulfur-oxidizing bacteria**, which forms a layer of biofilm above the water line. Biogenic corrosion, also known as microbiologically induced corrosion (MIC), occurs when this bacteria oxidizes the hydrogen sulfide and produces sulfuric acid which **accelerates the deterioration of concrete and metal structures**.

PROCESS OF H_2S OXIDATION AND SULFURIC ACID PRODUCTION



If left untreated, the structural integrity of critical infrastructure is compromised, resulting in **costly repairs and potential system failures**.

Sauereisen's protective linings and corrosion-resistant materials are specifically **engineered to prevent biogenic corrosion**, extending the service life of wastewater infrastructure.

Factors Contributing to CORROSION



THE SAUERISEN ADVANTAGE

Aging infrastructure, infiltration, and deterioration from harsh treatment chemicals also present significant challenges in maintaining treatment facilities.

Sauereisen's specialized products are **designed to restore** deteriorated structures **and protect** against further damage.

SUBSTRATE REPAIR.

When concrete or steel are subjected to aggressive chemicals or excessive loads, deterioration can threaten operations. Sauereisen substrate repair materials and underlayments allow concrete repair to proceed rapidly. Our products are formulated to exhibit rapid strength development and a fast cure for a quick return to service.

Prep Like a Pro

For optimal long-term performance, **proper surface preparation is key**. First, and of the utmost importance, remove all contaminants following AMPP/SSPC/NACE standards. Once a minimum **surface profile conforming to an ICRI CSP 4-6** is attained, ensure a **minimum pH of 8** for optimal adhesion.



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RESTOKRETE®

Designed to repair **deteriorated substrates** and
fill bug holes and voids in **new concrete**.

208 RestoKrete® Epoxy Modified Cement

An epoxy modified cement substrate repair material designed to fill voids, air pockets, and irregularities in both new and existing concrete and brick substrates. Trowel up to 1/2".

Pump, spray, or trowel applied

Moisture tolerant

209 RestoKrete® Filler Compound

Epoxy formulation designed to provide a uniform surface for the application of epoxy monolithics. Ideal for filling irregular surfaces and bugholes in concrete and steel. *Not compatible with vinyl ester topcoats.

3 hour recoat window

209FS RestoKrete® Filler Compound (Fast-Set)

Early high-strength, fast-setting epoxy formulation for filling irregular surfaces, voids, air pockets, and bugholes in concrete and steel. *Not compatible with vinyl ester topcoats.

Cures in 1 hour

209HB RestoKrete® Filler Compound (High-Build)

Epoxy filler compound engineered to resurface large irregularities and open joints in concrete and brick substrates. Ideal for a smooth finish and optimal bonding surface for epoxy topcoats. *Not compatible with vinyl ester topcoats.

Formulated to minimize sagging



RESTOKRETE.®

Designed to repair deteriorated substrates.

F120 RestoKrete® Underlayment

Fast-curing, high early strength, Portland based resurfacing material applied by gunite. Excellent freeze-thaw durability.

No re-coat window

Topcoat in 5-8 hours

F120FS RestoKrete® Underlayment (Fast-Set)

Fast-curing, high early strength, Portland based resurfacing material

No re-coat window

Topcoat in 3 hours

F121 RestoKrete® SubstrateResurfacer

High strength, rapid-set, Portland based substrate repair material designed for deterioration greater than small voids or irregularities in concrete or brick. Can be sprayed or trowel applied.

No re-coat window

Rapid application

F170 SewerSeal

100% calcium aluminate bonded cement with finely graded inert aggregate and fiber reinforcing used for repairing and sealing deteriorated masonry, brick, and concrete surfaces. This product exhibits high-strength quickly to withstand loads. Ideal for pumpable, sprayable, castable applications.

Moisture tolerant

Mild acid and alkali resistant



INFLOW & INFILTRATION

Designed to stop **inflow, infiltration** and active water leaks.

F88 Manhole ChimneySeal
Urethane-modified asphalt, designed to prevent water infiltration in the chimney area of manholes.

Fast, easy hand application



F370 Hydroactive
Polyurethane Grout
Expanding hydrophobic chemical grout for cracks and voids.

Bonds to wet surfaces

20x expansion

F180 InstaPlug
Rapid setting, hydraulic water plug for sealing active water leaks, filling small voids and special anchoring applications.

Bonds to damp surfaces

No odor

F190 H2OPruf
Crystalline water proofing coating for use on the positive or negative side of concrete or masonry structures to prevent water seepage. Withstands up to 30psi of hydrostatic pressure.

All Sauereisen substrate repair products can be top coated the following day!



PROTECT.

Primers

500 PenePrime

Water-borne epoxy primer specifically formulated to penetrate deep within concrete substrates to ensure maximum adhesion. Can also be used to mitigate outgassing of concrete substrates. Easily applied by spray, brush or roller.

Water-based

Low VOCs

Enhances bond

Minimizes outgassing

501 ConoWeld

Primer used in conjunction with Sewergard® coatings and linings as a bond-enhancing primer for direct applications on concrete and steel. Applied by spray, brush, or roller.

100% solids

Seals porous substrates

Low VOCs

Linings

Sauereisen linings offer advanced physical properties that are a step above thin film coatings. Our linings are **able to withstand significant physical abuse** with the added benefit of **low permeability**, making these corrosion barriers a stand-alone system. Applied at a thickness of **40 to 300 mils**, binder systems include epoxies, novolak epoxies and vinyl esters available in spray and trowelable versions.

381 ConoFlex

A polyurethane lining designed for low permeability, impact resistance, and chemical protection. 381 is ideal for protecting substrates subject to movement and harsh environments. Its fast cure time ensures a quick return to service.

Low-permeability

100% Solids

Flexible

FDA Compliant

USDA BioPreferred

SEWERGARD®

ULTIMATE CORROSION PROTECTION

210



New construction
and rehab
applications



100% solids
epoxy



Application by
spray, roll or trowel



Can be applied to
SSD concrete



Resistant to MIC
and treatment
chemicals



ASTM D7234
bond strength
to concrete
failure

Sauereisen's renowned **SewerGard® 210** lining systems are unique polymer linings that have demonstrated **over 35 years of success** in municipal wastewater environments preventing infrastructure failures and maximizing asset service life. SewerGard® 210 epoxies are specifically formulated for municipal wastewater environments and offer an economical solution to **Microbiologically Induced Corrosion** (MIC). Our protective linings exhibit moisture tolerance allowing them to bond directly to damp concrete. SewerGard® 210 systems are **100% solids** and environmentally compliant - with no VOC's.

210X High-Strength

SewerGard 210X protects concrete, masonry, brick, and steel substrates against wastewater environments and is designed to be used as a stand-alone chemical-resistant lining. The 210X lining is formulated to provide high-strength, high-build capabilities. Typical applications include manholes, lift stations, tankage, structural steel, digesters, clarifiers, and secondary containment.

- Up to 65 mils per coat
- Typical thickness of 125 mils
- Smooth finish to prevent debris accumulation
- Apply using standard airless or plural component spray equipment



210XHB High-Build

SewerGard 210XHB is a protective lining specifically formulated to provide a chemical-resistant barrier for concrete, masonry, brick, and steel substrates. Specified throughout the wastewater industry to protect infrastructure, 210XHB is a fast-setting lining that enables high-build capabilities, with a wide range of applications throughout collection and treatment.

- Smooth finish to prevent debris accumulation
- Apply using heated plural component spray equipment
- Installed thickness up to 300mil in a single coat



210XROL Rollable

SewerGard® 210XROL is an epoxy lining system designed to be applied on all surfaces without a primer. 210XROL protects infrastructure from chemical attack and physical abuse. When cured, 210XROL provides a high strength, corrosion-resistant protection for wastewater structures subject to infiltration, chemical attack, and physical abuse.

- Can be used on vertical, horizontal and overhead surfaces
- High strength and moisture tolerant



210GL Glaze

SewerGard® Glaze 210GL is a protective coating specifically formulated to resist strong acidic and oxidizing environments. 210GL is a versatile material that can be used as a standalone, economical coating, a sealing topcoat over other Sauerisen products, or as an extra measure of protection over textured underlayments.

- Can be applied by spray or by hand.
- Smooth surface prevents debris accumulation
- Moisture tolerant to accommodate damp substrates



210T Trowelable

SewerGard® 210T is an aggregate-filled epoxy lining system. It's non-sagging properties permit economical repair and protection of vertical, horizontal and overhead surfaces or where access is limited. 210T protects the surfaces of municipal wastewater treatment structures and collection systems from harsh environments and does not require a primer.

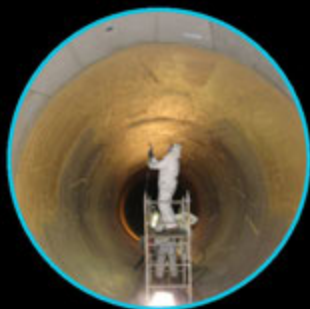
- Standard application thickness is 1/8"
- Prohibits water infiltration
- Hot and cold weather formulations
- May be spray applied



210S Sprayable

SewerGard® 210S is a fiber-filled lining specifically designed for a high degree of durability. 210S allows for quick installation and is ideal for large-scale applications. Its properties provide economical protection of new construction and rehabilitated substrates. When cured, 210S provides an impermeable, high-strength, corrosion resistant lining for any structures in wastewater collection and treatment.

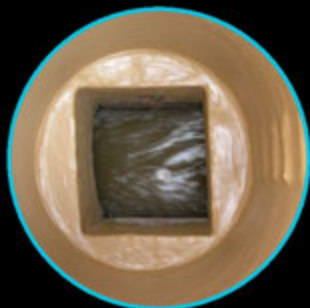
- Fiber reinforcing provides enhanced physical properties
- Spray applied in new and existing structures



210FS Fast-Set

SewerGard® 210FS is a fast-setting epoxy material engineered for the protection of manhole benches, inverts and other structures short downtimes. 210FS has non-sagging application properties that permit vertical and overhead applications, if necessary. When cured, this lining provides an impermeable, high strength, corrosion-resistant barrier.

- Allows for rapid return to service



210RS Rotary Spray

SewerGard® 210RS is an epoxy engineered to line the interior of an 8' deep manhole from street level in less than 20 minutes. The application properties of 210RS permit economical protection of new and rehabilitated substrates.

- Up to 125 mils per coat
- Minimizes confined space entry, enhancing worker safety



QUALITY ASSURANCE

By providing engineered systems to our customers, Sauereisen offers a high standard of quality. Our documented **Quality Assurance procedures assure the highest quality in every step of our manufacturing process**—from inspection of raw materials to production and shipping of finished goods. As an added benefit, Sauereisen's highly skilled laboratory and technical services staff frequently assist in the field where needed. A worldwide network of agent representatives, in conjunction with numerous pre-qualified Sauereisen applicators, ensure that our engineered systems work for you.



**WE
ARE
HERE
TO
HELP.**

CONTACT US FOR:

-  Product Recommendations
-  Qualified Contractor Referrals
-  Design Data
-  Specification Preparation

