

CORROSION-RESISTANT MATERIALS

ENGINEERED FOR IMMERSION, FLUE GAS, FLOORING AND SECONDARY CONTAINMENT



SAUEREISEN

GROWING WITH INDUSTRY

Early in life, C. Fred Sauereisen received an excellent grounding in thermally conductive and electrically-insulating materials by working with George Westinghouse on the first porcelain insulator. As he pursued his interest in ceramics, he founded Sauereisen Cement in 1899 introducing a line of high-temperature inorganic adhesives.

In time, the acid-resistant nature of the cements suggested expansion

into corrosive applications. Sauereisen Cement first entered industrial markets by modifying its specialty cement formulations and using them as chimney mortars in the power industry. Further development led to monolithic refractories then organic coatings and linings.

Today, Sauereisen is positioned as an inclusive supplier of corrosion-resistant materials

of construction. Our product lines offer engineered solutions for nearly all chemical concentrations, temperature ranges and application methods. The worldwide network of Sauereisen representatives, teamed with manufacturing facilities in North America, Europe and the Pacific Rim, provides global product distribution.

SAUEREISEN...AN OVERVIEW

At Sauereisen, we're not content to simply sell you a construction product. We want to provide you the most appropriate chemical-resistant system for each application...and the broadest selection of corrosion-resistant materials anywhere.

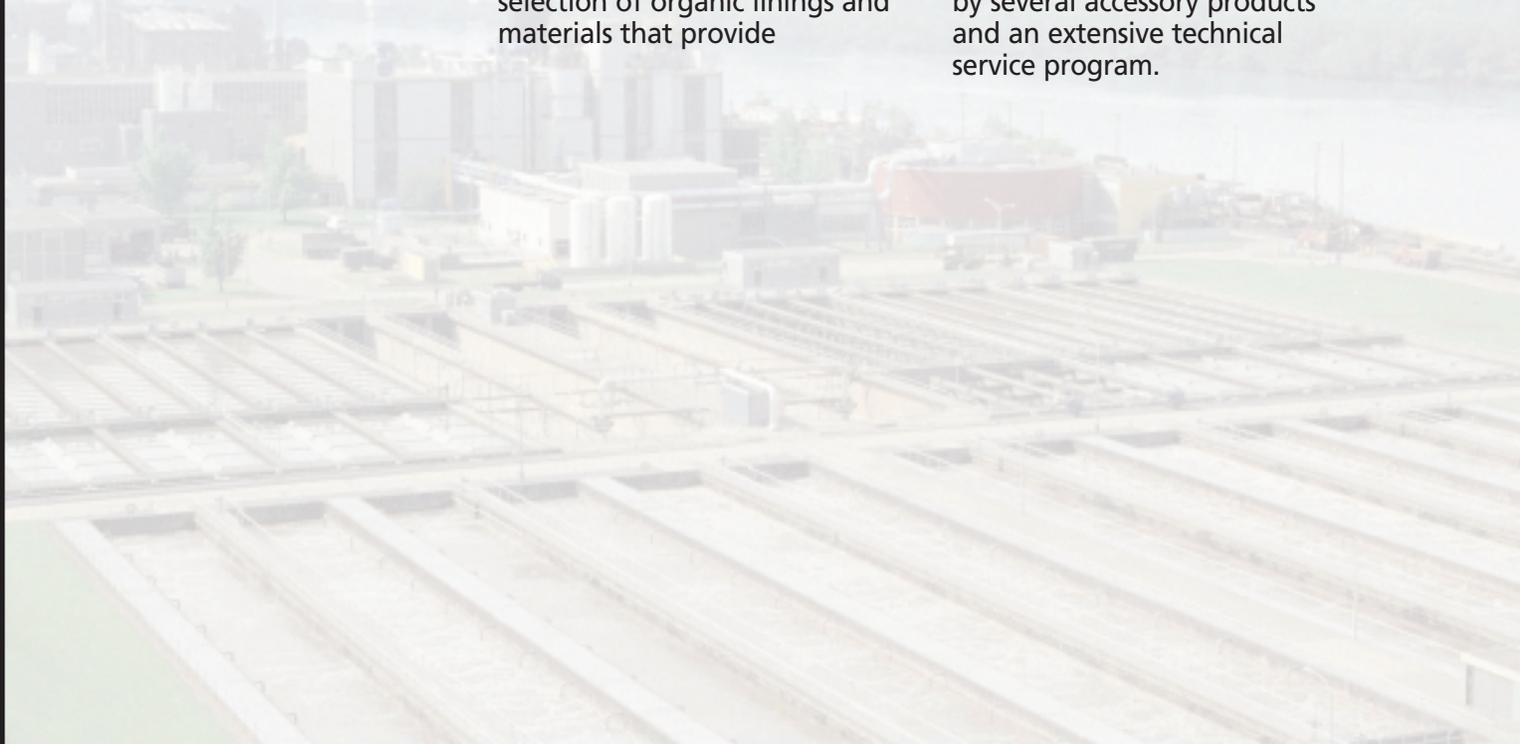
Our "engineered systems" approach to each job distinguishes us from our competitors. Based on the environmental considerations of your project,

we recommend the optimum products for the job. In doing that, we're able to draw on our extensive line of proven chemical-resistant products that protect concrete or steel in both new construction and rehabilitation projects. We also specify superior methods of material application to ensure corrosion resistance...and even recommend ways to repair the substrate, when that's necessary.

We offer you a progressive selection of organic linings and materials that provide

exceptional corrosion resistance and low permeability to a wide variety of chemicals. Likewise, the technology of our inorganic products offers resistance to high acid concentrations and temperatures through 2000°F.

Sauereisen products are grouped into six main categories—Coatings, Linings, Flooring, Polymer Concretes, Refractories and Mortars. Described in the following sections of this brochure, they are supported by several accessory products and an extensive technical service program.



COATINGS

Applied by spray or roller, these thin-film, resin-based corrosion barriers are used as stand-alone coatings or high-gloss sealants over other materials. Typical application thickness is 10 mils or less. Systems available include epoxies, vinyl esters, and urethanes.

They include:

- ConoGlaze Series—high gloss epoxy coatings
- Urethane Glaze—High temperature coating/sealer for floors
- VEGlaze—Vinyl ester polymer topcoat
- Fast-Trak Glaze—Vinyl ester and novolak epoxy coatings for pulp & paper plants

LININGS

Because of their advanced reinforcement, Sauereisen linings are a step above coatings because they withstand significant physical abuse and are very low in permeability. Typically, these materials are used as stand-alone linings in primary and secondary containment areas. These corrosion barriers are spray or trowel-applied at a thickness from 40 to 125 mils. Specific binder systems available include epoxies, novolak epoxies and vinyl esters.

- FibreCrete Series—Spray applied fiber-reinforced epoxy linings
- SewerGard Series—Polymer linings formulated for municipal wastewater
- Vinyl Ester FibreLine—Fiber-reinforced vinyl ester lining
- Fast-Trak Lining—Monolithic linings to protect tile structures

Sauereisen coatings and linings may be applied by airless spray. Virtually all of Sauereisen products emit no VOC's.



FLOORING



Sauereisen monolithic flooring conforms to USDA requirements.

A wide spectrum of epoxies, novolak epoxies and urethanes are the products of choice based on proven performance. The resin-rich composition and unique filler systems are what set our materials apart. Under standard application conditions, top-coating is not required to achieve ultimate chemical resistance. Sauereisen flooring systems are also known for their skid-resistance, appearance, and ease of sanitizing.

These flooring products are all resin-based materials applied by pour-and-spread, trowel or roller. Food & Beverage plants, along with other chemical processing facilities, offer numerous applications.

- ConoCrete Series—Epoxy flooring available in three increasing grades of chemical resistance

- Arctikure—Epoxy flooring for cold curing environments
- ConoSpread—A flowable epoxy “slurry coat” that may be customized by broadcast preferences
- Self-Leveling Epoxy—Low viscosity floor coatings that combine chemical resistance with expedient application methods

POLYMER CONCRETES

Sauereisen's polymer concretes are heavy-duty castables with a chemical-resistant matrix. This makes them the perfect solution for areas where more than a surface overlay is required. Application and reinforcement techniques are similar to working with Portland concrete. The major advantage is an extremely chemically-resistant infrastructure completed in a fraction of the time.

Sauereisen offers several organic polymer concretes. As a group, they offer impressive physical strength and very low permeability. For applications subject to the highest concentrations of acids, a silicate-based material is available. Polymer concretes provide chemical resistance to the core.

Available formulations include epoxies, novolak epoxies, vinyl esters, novolak vinyl esters, and potassium silicates.



Polymer concrete is easy to install and negates the vulnerability of surface defects.

- Acidproof Concrete — Structural Grade
- Epoxy Polymer Concrete
- Epoxy NovolaK Polymer Concrete
- Vinyl Ester Polymer Concrete
- NovolaK Vinyl Ester Polymer Concrete

Continuous mixing equipment accelerates production rates to limit downtime.



REFRACTORIES



Gunited refractories are a solution where aggressive acids are combined with high temperatures.

Chemical-resistant refractories applied by guniting are well known for their thermal insulating characteristics and speed of application. Resistance to high acid concentrations and temperatures to 2100°F are yet another excellent benefit.

Using anchors as reinforcement, Sauereisen refractories are applied at a minimum 2-inch thickness for such typical applications as stack linings, wastewater infrastructures and sulfur pits. Binder systems include potassium silicates and calcium aluminates.

- Chemical-Resistant Castable—Hydraulically-setting calcium aluminate for dry gas environments
- Acidproof Concretes—Potassium silicate resistant to full concentrations of most acids

MORTARS

Sauereisen's extensive selection of mortars range from silicate mortars for high acid/high temperature environments to organic mortars for broad chemical resistance. Available systems include furans, epoxies, vinyl esters, sulfurs and silicates.

Typical installations are completed by either the brick layer's or tile setter's method of application. These same mortars are used for specialized tank construction.

- Furan Resin Mortar/Grout—Two-component bonding mortar
- Epoxy NovolaK Mortar/Setting Bed—Versatile mortar and bed joint with low temperature capability
- Epoxy Setting Bed—Bed joint used for setting tile
- Acid-Alk Mortar—Modified silicate mortar for pH's of 0-9
- Corrosion-Resisting Mortar—Potassium silicate mortar for high temperatures
- Vinyl Ester Mortars—Silica and carbon-filled mortars for oxidizing environments
- Basolit Sulfur Based Mortars—Hot-melt bonding mortar

Long lasting acidbrick and tile floors withstand diverse chemicals and extreme physical abuse.



ACCESSORY PRODUCTS

Substrate Repair

Chemical-resistance isn't Sauereisen's only forte. Structural integrity can be just as important in many cases.

We supplement our applications from start-to-finish with a complete line of easy-to-apply substrate repair materials. From minor patching to extensive substrate repair, Sauereisen can meet your needs.

- Underlayment—Fast-curing high early strength resurfacer
- Substrate Resurfacer—Spincast material to restore manholes
- ConoCrete Fast Patch—Quick curing floor patch
- InstaPlug—Hydraulic water plug for active leaks
- H₂OPruf—Cementitious waterproofing compound for weeping concrete

- Filler Compound—Epoxy for filling uneven surfaces and bugholes
- Hydroactive Polyurethane Grout—Foaming chemical grout for cracks and voids

Membranes/Joint Compounds

Sauereisen's "engineered systems" approach is also evident in our line of membranes and expansion joints. In many cases, these products prolong the life of a structure protected by other materials. Selecting the right membrane and joint compound minimizes the vulnerability of substrate imperfections, expansion rates and long-term chemical exposure. Chemistries include asphalts, urethanes, epoxies and synthetic rubber.

- Asphaltic Membrane — Hot-applied membrane for use under brick linings

- Fib-R-Thane—Asphalt-modified urethane with fiber reinforcement
- High Temperature Membrane — Asphaltic mastic used beneath refractories
- Sheet Membrane —Reinforced rubber elastomer supplied in rolls
- Elastomeric Joint Compound—Flexible expansion joint
- Epoxy Expansion Joint Compound —Epoxy joint material for monolithic applications

Grouts

Well-known epoxy and cementitious grouts are ideal for machinery placement. Chemical resistance, strength and flowability are selection criteria.

TECHNICAL SERVICES

By providing engineered systems to our customers, Sauereisen offers a high standard of quality.

Although traditional product lines remain successful after 100 years, our Research Department continually works to modify and improve our products. We introduce new

innovations every year to meet the ever-changing needs of our customers.

Our documented Quality Assurance system assures you of the highest quality in every step of our manufacturing process—from inspection of raw materials through production

and shipping of finished goods. Sauereisen's highly skilled technical service staff frequently assists in the field. A worldwide network of agent representatives, in conjunction with numerous prequalified Sauereisen applicators, help make our engineered systems work for you.

SAUEREISEN

Sauereisen Combats Corrosion

160 Gamma Drive
Pittsburgh, Pennsylvania 15238-2989 USA
Phone: 412-963-0303 • Fax: 412-963-7620

E-Mail: questions@sauereisen.com
<http://www.sauereisen.com>