

STONHARD *Solutions*

Engineered Solutions for Secondary Containment Problems

Choosing the Most Effective System

An ineffective or improper secondary containment solution runs the same risks as no secondary containment system at all.

Secondary containment has become a primary concern for any facility which uses, manufactures, stores or distributes chemicals.

The driving force behind this concern is the prevention of ground water and soil contamination by chemicals. In 1976, the U.S. Government enacted the Resource Conservation and Recovery Act (RCRA) to protect soil and ground water. Since then, the EPA has written and enforced strict policies for RCRA violations. Increased penalties and fines can seriously affect your bottom line.

The only way to prevent this is to install an impervious, chemically compatible barrier to prevent chemical intrusion into, and through, your concrete containment structure.

Benefits of an Effective Secondary Containment System

Regulatory compliance is the primary reason facilities line their concrete containment areas, however there are additional benefits to installing an impervious lining system to a concrete containment structure. The benefits include protecting your facility's structure, improving plant productivity, reclaiming valuable chemicals and providing a safe work environment.



Stonhard's Stonchem 677 lining provides an effective secondary containment system for this sulfuric acid containment area.

Corrosive chemicals, if not properly contained, can cause rapid deterioration of your concrete containment structure. This increases maintenance costs significantly and can create costly production down-time for repairs.

Improper containment of these chemicals also has an immediate and negative effect on profit. Chemicals can be absorbed into or react with a concrete surface, rendering them unusable. With a compatible lining system, however, a spilled chemical can be collected and reused.

A properly engineered lining system can also provide a skid resistant and easy-to-clean surface, creating a safe environment for employees who work in the area.

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It's important to remember that secondary containment solutions are not "one-size-fits-all." An effective containment lining is a customized system engineered to the specific chemical and mechanical requirements of the area. There are also other important factors to consider, such as engineering details.

The best solution can only come from a combination of a properly selected lining material, system configuration and several key engineering details, including:

- Joints
- Terminations
- Abutments
- Corners and Transitions
- Trenches
- Crack Repairs

Engineering details such as these, in addition to thorough surface preparation and the installation itself, are critical to the long-term effectiveness of the lining system. While these elements comprise only 40% of the cost of a typical lining system, they play a major role in the success of that system.

Lack of attention to or elimination of these details actually leads to 90% of all linings failures!

Stonhard provides five separate families of chemical resistant polymer linings, available in several system configurations, to provide you with the exact secondary containment system you require.

These families are:

300 Series

General purpose series of products based on a highly cross-linked Bisphenol A epoxy resin designed to protect concrete substrates against a broad range of chemicals in a wide variety of applications of applications, including water and wastewater treatment facilities.

400 Series

State-of-the-art polyurea technology shapes this series of coatings. These systems are best for exposure to petroleum products, caustics and moderate concentrations of acids.

500 Series

This patented bisphenol F epoxy resin provides resistance to alkalis, moderate acids and high molecular weight solvents.

600 Series

A novolac epoxy resin used for areas exposed to inorganic acids, concentrated sulfuric acid, most solvents and alkalis.

700 Series

A chlorendic acid based, unsaturated polyester resin recommended for areas exposed to nitric acid, chromic acid and hydrogen peroxide.

800 Series

A highly cross-linked vinyl ester resin for exposure to concentrated organic acids, inorganic acids, most solvents, bleach and alkalis.

Stonhard also has more than 300 Project Engineers and Regional Lining Specialists who custom design your secondary containment system. In addition, a Stonhard trained installation team applies this customized system solution.

Finally, the project is covered by Stonhard's unmatched Single Source Warranty for both product and workmanship. Stonhard's Total System Approach ensures a successful solution for your secondary containment needs.

Consult your Stonhard Project Engineer for the high performance lining system that is right for you.



Stonhard installation teams provide trained attention to details and superior preparation to ensure a high-quality installation.

The Stonhard Difference

Stonhard is the unprecedented world leader in manufacturing and installing high performance polymer floor, wall and lining systems. Stonhard's seamless, long-wearing and easy to clean floor systems are engineered to perform in both industrial and commercial environments without sacrificing design and innovative vision. You'll experience unparalleled products, easy maintenance, progressive and customized designs and Stonhard's single source warranty covering both installation and products. Stonhard maintains 300 project engineers and 175 application teams worldwide who will work with you on design specifications, project management, final walk through and service after the sale.

