

Welcome

This is Goodwest Linings & Coatings' first newsletter. Our goal is to provide information about the corrosion protection industry while showing real client examples of how our products are improving infrastructure.

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Technical Information

Elastomeric Polyurethane

Beneficial Properties:

- No solvents/100% solids
- Certified per NSF 61 for potable water
- High-build in a single spray-applied coat (.250" vs .050" max for most other linings)
- Elasticity (over 40%) that easily accommodates expansion & contraction due to thermal cycling where other materials crack
- Impact & abrasion resistance (often used on exteriors of large pipelines to reduce coating damage from handling)
- Low-temperature cure (-25° F for Endura-Flex 1988)
- Fast cure—can be immersed 24 hours after application
- UV resistance—discoloration occurs but with no loss of physical properties
- High dielectric strength/low conductivity

Limitations:

- High temperatures — polyurethane reverts at immersion temperatures over 120° F. or 180° F. dry.
- Chemical resistance — not intended for primary containment of concentrated acids, solvents and certain other chemicals.

[CLICK HERE](#) for information on Endura-Flex 1988.

Elastomeric Polyurethane Provides Superior Pinhole-Free Linings



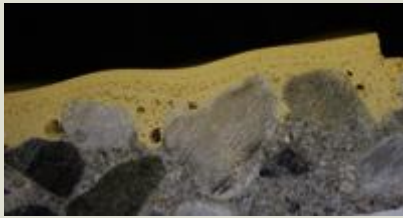
The Ecosystem® process saved CSULB from costly concrete resurfacing.

When no other lining can create a pinhole-free surface over severely degraded concrete or heavily corroded steel, elastomeric polyurethane may be the cost-effective solution that eliminates a maintenance headache once and for all. Elastomeric polyurethane can be applied at virtually any thickness over almost any substrate to create a pinhole-free lining that will stay that way for more than 30 years.

By reducing the need for resurfacing of spalled concrete or corroded steel prior to lining installation, elastomeric polyurethanes provide superior corrosion protection for less money and installation time than other materials. After application of a single thick coat, it's ready for immersion service or traffic only 24 hours later. Because of its elasticity, low permeability rate, and abrasion resistance, elastomeric polyurethane is widely used for steel tanks and pipes and concrete reservoirs, digesters, and secondary containment.

After hundreds of installations of elastomeric polyurethane in many different applications, Goodwest has yet to encounter a single failure. Goodwest engineers and executes turnkey refurbishment plans that keep vital equipment in service for as long as possible.

[Contact us](#) to discuss new projects or refurbishment projects that may utilize this lining technology or other specialty materials.



Cross-sectional view of ECOSYSTEM® process application of solventless polyurethane applied over severely degraded concrete.

ECOSYSTEM PHYSICAL EXPANSION PROCESS WITH POLYURETHANE

The *ECOSYSTEM®* process with polyurethane involves injecting an inert gas into the stream of polyurethane components prior to the mix exiting the spray gun, thus resulting in physical expansion. The “expanded” polyurethane is evidenced by tiny closed cells and can be sprayed onto a surface in a non-stressed, lightweight, seamless monolithic condition. This process does not change the chemical resistance of the coating and has been shown to actually improve some properties, such as permeability, compared to the original solid (non-expanded) polyurethane.

While the *ECOSYSTEM* expanded materials have the visible characteristics of cellular products, they are distinguished from foamed products by the absence of any chemical reaction causing volume increase after application on the surface. Observed flow and spray capabilities remain very similar to standard liquid coatings, except that thicker films are possible due to less weight per unit of area (lower density). Seamless monolithic polyurethane linings can be applied and molded directly over earth and other extremely irregular surfaces such as degraded concrete or heavily pitted steel.

[CLICK HERE](#) for full article.

Cal State University Long Beach

The Problem: The concrete was so degraded, spalled, and full of “bug holes” that most lining materials could not be used to successfully reline the half-million-gallon subterranean concrete pit. The concrete normally would have required costly and time-consuming resurfacing prior to relining. Every summer CSU Long Beach filled the pit with more than 100,000 cubic feet of ice and blew air through it to chill the AC air and drastically reduce the university’s electric bill.

The Solution: With summer fast approaching, Goodwest was contacted to utilize the *ECOSYSTEM®* expansion technology for this project. This system involves injecting an inert gas into elastomeric polyurethane to “expand” the polyurethane film and create a lightweight, very thick lining material to form a pinhole-free surface over extremely uneven surfaces. Just before the summer heat picked up, Goodwest successfully relined the pit and the university didn’t have to pay more of those exorbitant summer electricity rates.

ECOSYSTEM expansion technology is one of many corrosion protection solutions that Goodwest provides for facilities throughout the West. Goodwest inspects and analyzes challenging corrosion problems, engineers unique long-term solutions, and provides turnkey installation services. Large operations across the full spectrum of industries have utilized Goodwest for decades to ensure that their equipment stays in service for as long as possible without problems.

[CLICK HERE](#) for more information about Goodwest’s experience with Facilities Maintenance projects.

About Goodwest

Goodwest has installed dependable protective lining and coating systems since 1961. Providers of water, oil, power, transportation, and other key infrastructures rely on Goodwest to ensure that critical equipment stays in service as long as possible.

Goodwest specializes in applying materials resistant to the most aggressive chemical, abrasion, and high temperature environments.

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