

HOW TO

Choosing the Right Traffic Coating System

NEOGARD HIGHLIGHTS THE PROS AND CONS OF COATING SYSTEMS TO HELP YOU AVOID COSTLY PAVEMENT PROBLEMS.

By Julia Stone

William Brice Stadium at USC benefitted from pedestrian traffic coatings, sealants, and concrete repairs.



HOW IT WORKS



← Coating technology protects an owner's investment by protecting the reinforcing steel and concrete. Cracks occur when water soaks into the concrete and down into the reinforcing steel. The steel begins to corrode and rust, which causes a crack in the concrete.

"Major corrosion issues can be quite expensive for the repair process and that's what these coatings are for, to help reduce the amount of repairs needed," Lawrence says.

But how do traffic coatings work? Waterproofing systems keep the water from permeating the concrete. If you can cut off the flow of water, then you also cut back on corrosion. The membrane is the key part of the system that includes the waterproofing properties. Everything else is added to provide traction and chemical resistance to protect that membrane.

With so many different traffic coating systems on the market, it's difficult to know which one to use. "First, you need to determine what you're trying to do," says **Mosby Lawrence**, waterproofing manager at **NEOGARD**, a Dallas-based manufacturing and research organization. "It's important that the coating type you choose is meeting your intention and your requirements." For different goals, like aesthetic improvement, supplying waterproofing, or protecting concrete surfaces, there are different coating types you should use. "But straight physical properties aren't enough to see how a coating

will perform," Lawrence says. That's why on top of researching and learning about different systems, Lawrence recommends checking references and service track records from past projects by reaching out to contractors and engineers. He also encourages following the manufacturer's advice concerning coating thickness.

Sustainability comes into play for **NEOGARD**, too. When traffic coatings are removed, they're put in landfills. Lawrence and his team are working to educate clients on how to maintain their systems and about the high cost of replacement. Before you delve into maintenance, be sure you choose the right system in the first place.





POLYURETHANE SYSTEMS



> Polyurethanes have been used since the 1970s and have strong waterproofing properties and can bridge cracks. They also offer aesthetic options. "Clients can spend a great deal of money for traffic systems, but they are sustainable and meet strict VOC standards. If a client maintains them, you can simply re-apply the coating over it, so there is no need to replace them," Lawrence says.

- + SUSTAINABLE WATERPROOFING AND CRACK BRIDGING PROPERTIES
- EXPENSIVE, DIFFICULT TO INSTALL, LOW PERMEABILITY
- ✓ PROJECTS THAT REQUIRE WATERPROOFING (APARTMENT GARAGES, ETC.)

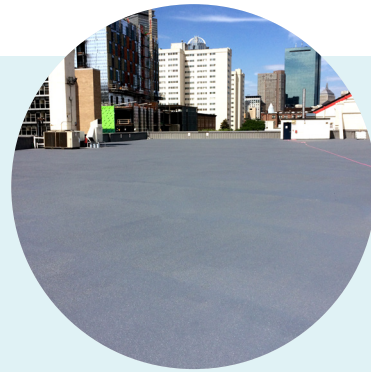


EPOXY BROADCAST SYSTEMS

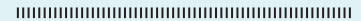


> Epoxy broadcast systems have stood the test of time—they've been used for decades. The systems are easy to apply and fairly inexpensive. And there are many options for aesthetics and slip protection. Epoxy broadcast systems provide concrete surface protection and enhanced durability. "If you're looking for an economical covering, this is an option," Lawrence says.

- + AFFORDABLE, EASY TO APPLY
- NO WATERPROOFING CAPABILITIES, CORROSION AND CRACKING MAY OCCUR
- ✓ RAMPS, BRIDGE DECKS, AND PARKING GARAGES



POLYURETHANE/EPOXY HYBRID SYSTEMS



> Polyurethane/epoxy hybrid systems are growing in popularity. "Even if you don't want to use hybrid throughout the whole garage, you can use it in high wear areas such as ramps, exits, entrances, and turning areas," Lawrence says. "This will increase the durability of the entire system."

- + DURABILITY FOR HIGH WEAR AREAS
- LOW MOVEMENT CAPABILITIES
- ✓ HIGH-VOLUME, HEAVY TRAFFIC PARKING GARAGES (HOSPITALS, RETAIL CENTERS, ETC.)



PMMA SYSTEMS



> Poly-methyl methacrylates (PMMA) have a growing presence in the U.S. due to their durability, chemical resistance, and warranty programs. The chemistry itself makes PMMA systems more durable. "The chemistry is used for dental fillings, road markings, and certain types of glass," Lawrence says. These also have a fast turnaround time—they are frequently opened to service within hours on the same day of application.

- + HIGH DURABILITY, QUICK RETURN TO SERVICE
- EXPENSIVE, ODOR DURING APPLICATION, PRONE TO CRACKING
- ✓ IN PROJECTS WHERE TURNAROUND TIME IS CRITICAL



LATEX/VINYL COPOLYMER SYSTEMS

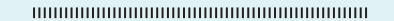


> Latex/Vinyl copolymer systems are an economical, non-flammable option with no odor during application. They are breathable and allow more moisture vapor to transfer out of the concrete. As a result, they're often applied on concrete surfaces with metal pan deck underneath, which provides no permeability. From an aesthetic standpoint, the final finish color looks very similar to concrete.

- + NO ODOR, EASY TO APPLY, HIGH PERMEABILITY
- NO WATERPROOFING CAPABILITIES, NATURALLY RIGID AND PRONE TO CRACKING
- ✓ CONCRETE SURFACES WITH METAL PAN DECK UNDERNEATH



SEALERS



> Sealers are economical, easy to apply, low in odor, and don't change the appearance of the concrete at all. But they will only protect the surface of the concrete for a limited amount of time before a new coating is needed. "The key to get the best benefits for sealers is frequent applications every five years," Lawrence says.

- + AFFORDABLE, EASY TO APPLY
- NO WATERPROOFING OR CRACK BRIDGING PROPERTIES, FREQUENT RE-APPLICATIONS NEEDED
- ✓ NEW CONSTRUCTION PROJECTS