



PERMANENT CONCRETE PROTECTION



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Spray-Lock Concrete Protection



Time-of-Placement



Existing Concrete



Structural Concrete Remediation

Spray-Lock Concrete Protection (SCP) manufactures spray-applied concrete treatments that penetrate into concrete capillaries and pores to waterproof and protect the entire capillary and pore structure. SCP technology features include:

- Time-of-placement enhanced curing & waterproofing
- Waterproofing after time-of-placement
- Deters development of corrosion conditions
- Enhanced resistance to salt and/or chemical attack
- Enhanced freeze-thaw resistance
- Reinforcing steel protection for existing concrete
- Coating & coverings protection
- Minimized shrinkage cracking & slab curling
- Densification
- Strengthening & surface hardening
- Efflorescence reduction
- Increase durability
- Saves time & money
- Non-flammable
- Zero VOC content
- Safe & easy to apply

SCP technology offers the quickest and most cost-effective concrete protection solutions that meet the demands of today's fast-track construction process. SCP technology is often used as a superior curing medium. Testing has shown that SCP treatment performs equal to or better than 28-day water ponding. User safe with zero VOC content, SCP allows coatings and coverings to be successfully installed in as little as 14-days after concrete placement with no moisture-related failure problems in structurally sound concrete. SCP technology also minimizes shrinkage cracking and slab curl at time-of-placement, saves costly flooring/surfacing preparation, and leaves the surface characteristics unchanged with no topical residue.

SCP technology can be used on any uncoated architectural or structural concrete. After proper preparation and treatment with SCP technology, existing concrete slabs, walls, structural elements, and overhead applications are permanently waterproofed. For distressed structural concrete, SCP offers a formulation to specifically address reinforcing steel corrosion conditions.

Infrastructure Sustainability

SCP provides a proven solution to infrastructure concrete issues.

Infrastructure systems across North America and beyond are in desperate need of repair and replacement. From highways, bridges and tunnels, to locks/dams, airports and seaports, to culverts and wastewater treatment facilities – the main challenge is how to protect new and old concrete in order to increase the sustainability of these structures.

Upon application, SCP forms a gel within the concrete capillaries and pores. SCP technology helps prevent embedded steel corrosion and provides a wide range of concrete protection features such as densification, strengthening and surface hardening, and resistance to salt, chemical and environmental attack for the life of the concrete. This provides a proven solution to infrastructure concrete issues.

When applied after concrete is placed, SCP technology penetrates accessible capillaries and pores. This technology chemically stabilizes concrete and acts as a pore-blocker. It can be used at time-of-placement or as a remedial treatment.

SCP technology has been used on sidewalks, pedestrian bridges, roads, bridges and ramps, as well as airport facilities and pavements.

SCP Technology Benefits:

- Waterproofs
- Deters development of corrosion conditions
- Works on new & old concrete
- Enhances long term durability
- Withstands hydrostatic pressure
- Enables minimum downtime
- Can access treated concrete in as little as 1-hour after application
- Fast, safe & clean, with zero VOC content



Market Segments	Architectural / Structural Applications	Specialty Applications	SCP Technology Features
<ul style="list-style-type: none"> • Coastal & Port Infrastructure • Commercial Infrastructure • Concrete Floors or Under Flooring Systems • Industrial Infrastructure • Transportation Infrastructure • Tunnels, Subways, & Containment Vessels 	<ul style="list-style-type: none"> • Bridges • Buildings • Containment Vessels • Dams • Floors & Slabs • Pavements • Ports • Retaining Walls • Tunnels 	<ul style="list-style-type: none"> • High-Performance Concrete • Paver Systems • Pervious Concrete • Polished Concrete • Precast Elements • Roller-Compacted Concrete • Shotcrete 	<ul style="list-style-type: none"> • Abrasion Resistance • Alkali-Aggregate Reaction Resistance • Carbonation/Dusting Protection • Chemical Attack Resistance • Chloride Protection • Concrete Curing Enhancement • Concrete Matrix Rejuvenation • De-icing Chemical Protection • Deters development of corrosion conditions • Efflorescence Prevention • Freeze-Thaw Protection • Reinforcing Steel Protection for existing concrete • Surface Densification & Hardening • Waterproofing

SCP 327

Time-of-Placement



SCP 327 is a zero VOC, pre-mixed, spray-applied treatment that penetrates concrete surfaces providing superior curing, permanent waterproofing, and internal protection.

SCP 327 Benefits:

- Superior cure - benefits of 28-day water ponding without delays
- Waterproofs new concrete
- Eliminates the need to remove curing membranes
- Allows flooring and coating installation in as little as 14-days
- Enhances resistance to chemical & environmental attack
- Permanent protection
- Reduces shrinkage cracking & slab curling
- Access slab in as little as 1-hour
- Minimizes scaling & spalling
- Preserves matrix integrity
- Does not change surface characteristics of the concrete

Coverage: 140-180 ft² per gallon

Dick's Sporting Goods

SCP 327 provided a fast-track and sustainable flooring protection solution.

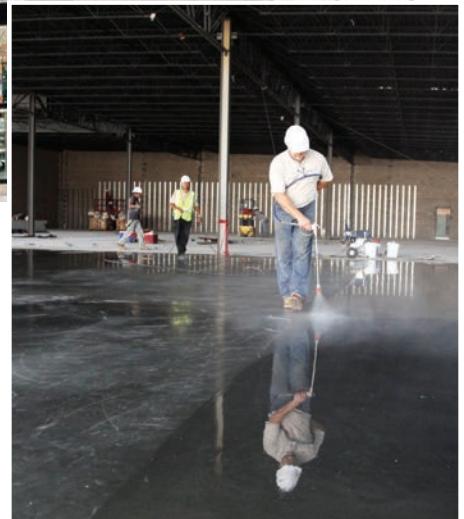


In early 2012, national retail construction company Fulcrum Construction wanted to complete a 20,000 square foot Dick's Sporting Goods project quickly, while also providing a sustainable flooring solution.

In order to expedite the construction process, Fulcrum used SCP 327 at time-of-placement to ensure that the concrete floor would resist moisture migration and reduce spider-cracking, slab curl, shrinkage, and expansion. In just 14-days after concrete placement, Fulcrum used Spray-Lock® Premium Eco Adhesive to apply the vinyl flooring.

Foot and trade traffic accessed the floor shortly after flooring installation. Spray-Lock® Flooring Systems Technology saved Fulcrum time and money by eliminating the need for costly flooring/surfacing preparation. Using Spray-Lock® Flooring Systems Technology also allowed the retail store to open two weeks early.

Over a year later, the floor is in excellent condition -- time-proven, having incurred none of the industry's typical flooring complications.



SCP 327 Benefits:

- Flooring was installed 14-days after concrete placement
- VOC free
- Non-flammable

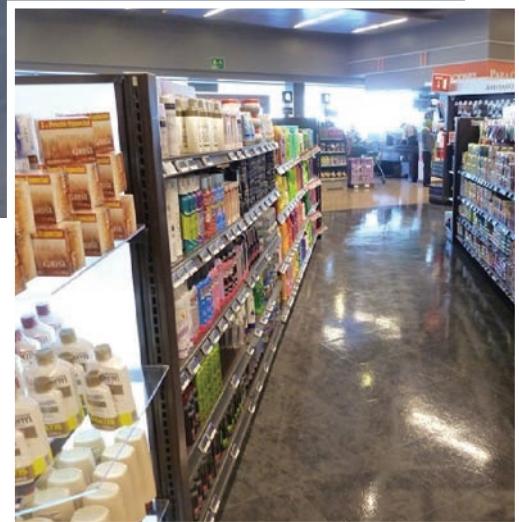
Soriana Retail Center

Soriana, Mexico's largest retailer, uses SCP 327 at time-of-placement.



In 2011, Soriana, Mexico's largest retailer, used SCP 327 for over 1,000,000-ft² of store concrete. With an additional 2,000,000-ft² placed in 2012, Soriana benefited greatly from the time-of-placement application. SCP 327 eliminated the need for a curing membrane and an epoxy-based moisture mitigation system. Soriana was able to install vinyl flooring within 14-days after concrete placement and occupy their stores much faster.

SCP 327 provided permanent concrete protection and waterproofing while also providing optimal conditions for densifying and polishing concrete.



SCP 327 Benefits:

- Eliminates the need for a curing membrane & an epoxy-based moisture mitigation system
- Install vinyl flooring 14-days after application
- Occupy stores in a shorter amount of time

Vale Mine's Frood-Stobie Mechanic's Garage

SCP 327 provided a solution to resist moisture and chemicals that were penetrating the concrete.



Vale Mine's Frood-Stobie Mechanic's Garage in Sudbury, Ontario wanted protection from the chemicals that came off mining equipment and wheels when they were washed.

SCP 327 was applied at time-of-placement. Now, when mining equipment is cleaned in the mechanical garage, the concrete resists the chemicals and water, eliminating long-term maintenance issues.

SCP 327 Benefits:

- Chemicals & water no longer penetrate the concrete
- Eliminates or reduces long-term maintenance issues
- Waterproofs concrete from time-of-placement
- Increases durability

Lend Lease Projects

One of the world's leading project management and construction companies chooses SCP technology for major construction projects.

One of the world's largest and most respected builders, Lend Lease, uses SCP products extensively.

Lend Lease uses SCP 327 at time-of-placement as a superior curing medium, equal to or better than 28-day water ponding. All SCP products permanently waterproof, leave no surface residue, and densify and harden concrete.

SCP 327 can allow coatings and coverings to be successfully installed 14-days after concrete placement with no moisture-related failures.

SCP products are environmentally and user friendly with zero VOC content. SCP products offer the safest, most cost and time effective protection solutions.



Outdoor Concrete Maintenance

SCP 327 & 578 greatly reduce maintenance for outdoor concrete structures.



SCP's technology has been used to protect and preserve concrete in numerous successful applications.

The Tennessee Aquarium in Chattanooga hosts an average of 700,000 visitors annually, making maintenance of its sidewalks and pedestrian bridges a priority. Additionally, many of the Aquarium's sidewalks are located above important underground attractions and facilities. SCP 578 was applied to waterproof the sidewalks to prevent water leaks to these underground facilities.

Additionally, SCP 327 was used on a new concrete slab at time-of-placement in the Tennessee Aquarium's cold room to prevent freeze-thaw damage. 72-hours after application on this slab, the temperature was lowered to freezing range with excellent results. Months later, inspection revealed no surface cracks.

Nearby, Southern Adventist University and The McCallie School used SCP 327 at entrances and on sidewalks to obtain better curing, prevent de-icing chemical damage, improve maintenance and sustainability, and increase wear resistance.

SCP 327 & 578 Benefits:

- Protect concrete from freeze-thaw damage
- Prevent de-icing chemical damage
- Reduce budgets & expenditures for ongoing maintenance of pedestrian bridges and sidewalks

Marina Bay Sands Resort

SCP 327 provides a permanent solution against water migration and environmental attack.

Singapore's Marina Bay Sands Resort stands tall as one of the most impressive properties in the world.

The three hotel towers are covered by the breath-taking SkyPark that extends out over the structure and supports three massive infinity edge swimming pools, two restaurants, and a garden with unparalleled views of Singapore. Sands Casino Corporation decided to use SCP 327 to protect its investment in the new SkyPark.

SCP 327 was selected as the waterproofer for this project. Since it was applied at time-of-placement, SCP 327 also acted as the curing medium prior to surfacing installation. As a result, foot traffic was allowed on the concrete surface 1-hour after treatment and full construction traffic after the concrete achieved its design strength.

SCP 327 penetrates into the concrete capillary and pore structure; therefore, damage to the waterproofing system due to construction traffic is unlikely unless the concrete itself is damaged.

SCP 327 densified, strengthened and hardened the newly placed SkyPark concrete, providing an ongoing solution against water migration and environmental attack.

This iconic and beautiful resort now has SCP protecting its underlying concrete for the lifetime of the structure.

SCP 327 Benefits:

- Waterproofs new concrete
- Eliminates the need to remove curing membrane prior to coatings or coverings
- Provides a permanent barrier against water migration & environmental attack



SCP 578

Premium Concrete Protection



SCP 578 is a zero-VOC, pre-mixed, spray-applied treatment that penetrates and protects Portland cement concrete substrates.

SCP 578 provides permanent protection with unique technology that rejuvenates and waterproofs the concrete capillary and pore structure.

SCP 578 Benefits:

- Rejuvenates concrete capillary & pore structure
- Waterproofs existing non-coated concrete
- Accepts all coatings or coverings
- Enhances resistance to chemical & environmental attack
- Permanent protection
- Access slabs in as little as 1-hour
- Does not change surface characteristics of the concrete

Coverage: 140-180 ft² per gallon

Parkland Memorial Hospital

At the Parkland Memorial Hospital basement Sterile Processing Center project, RH readings were off the scale.

Parkland Memorial Hospital's new Sterile Processing Center in Dallas needed a solution for moisture problems in its concrete floor prior to installation of Armstrong Medintech Tandem sheet vinyl.

The hospital contractor wanted a permanent, guaranteed waterproofing system that would be totally user and environmentally safe, and deliver minimum disruption to the client during the application. SCP 578 was the answer.

The concrete substrate was mechanically prepared to remove all previous floor coating materials and provide a sound, clean porous

substrate. After this, SCP 578 was spray-applied. The Sterile Processing Center was opened to foot traffic in 1-hour and in 24-hours a skim coat was installed to remove any surface imperfections or prominent undulations.

SCP 578 Benefits:

- Access slab in as little as 1-hour
- Provides permanent moisture & alkalinity protection
- Enhances resistance to chemical & environmental attack

From this →
To this ↓



Porto do Açu

SCP 578 protects over 1 million square feet of one of the world's largest piers.



SCP 578 Benefits:

- Waterproofs existing concrete
- Provides permanent chloride ion protection
- Reduces potential reinforcing steel corrosion

Açu Superport is the third largest industrial port complex in the world. Located north of the state of Rio de Janeiro, Brazil, the newly-constructed port's gigantic pier juts nearly two miles out into the South Atlantic hosting cargo ships carrying millions of tons of oil, iron ore, and other mining products.

During the construction process, port owners Anglo-American and LLX Logistica S.A. were concerned about the impact of the extreme marine environment on the deck structure. They identified Spray-Lock Concrete Protection® Technology [SCP] as the only solution to protect the concrete in this important port infrastructure investment.

In just five weeks, SCP 578 was spray-applied to over 1 million square feet of the pier's massive concrete deck. SCP 578 penetrated the pier's deck to seal and waterproof the concrete's capillary and pore structure, reduce potential reinforcing steel corrosion, and provide permanent chloride ion protection.

With SCP technology protection, the pier now stands as the region's most significant commercial resource and is concrete resistant to the effects of the harsh marine environment.



Logan International Airport Remodel

SCP 578 helps expedite Terminal B's construction process, saving time and money.



Boston's Logan International Airport serves nearly 30 million passengers a year, making it among the busiest airports in the United States. The airport's Terminal B has undergone extensive renovation to accommodate United Airlines' move to consolidate its operations from two other terminals.

During the construction process, the contractors decided to use SCP technology to protect the concrete. SCP 578 was applied to 11,050 square feet of concrete in the baggage area, penetrating the capillaries and pores to provide a permanent internal barrier to alkalinity and moisture. This ensured the concrete floor would resist moisture migration. Surface preparation was minimal, allowing contractors to expedite the construction

process. Workers accessed the area in just 1-hour after application.

SCP 578 minimizes construction-related delays such as construction traffic restrictions, extensive surface preparation, and the installation of other moisture treatments.

SCP technology offers the fastest and most cost-efficient flooring moisture and alkalinity solution to meet the demands of today's fast-track construction process.

Shortened construction time allowed Logan Airport's baggage area to quickly resume service, saving the airport administration time and money.



SCP 578 Benefits:

- Provides permanent alkalinity and moisture protection
- Eliminates air quality management requirements
- Minimizes extensive surface preparation
- Minimizes construction disruptions
- Easy & safe to apply with zero VOC content

Precast Solutions

SCP technology is a natural partner with the precast industry. SCP products contain revolutionary technology that allow treatment shortly after mold release to improve cure strength, reduce cracking and dusting, increase resistance to chemical and environmental attack and provide waterproofing.

SCP technology improves the quality and durability of concrete products, increasing value to precast consumers.

SCP 578 treatment of precast products for architectural, drainage, structural, transportation, and/or utility applications extends service life by increasing resistance to de-icing chemical and freeze-thaw attack.

SCP 578 Benefits:

- Increases service life of grease traps, treatment tanks, pipes, vaults, & other precast products
- Waterproofs concrete surfaces
- Faster & easier application than traditional sealers and coatings
- Cost-effective solution compared to epoxies & many other sealers
- Minimizes penetration contaminants
- Extends life & reduces maintenance of precast building modules, such as prison units
- Makes cleaning easier



Solvent or Water-Based Coatings

SCP 578 is used as a water barrier prior to applying coating systems such as epoxy, polyurea, and polyurethane coatings. SCP 578 ensures that no moisture can attack the polymer coating during the service life of the concrete.

SCP 578 ensures that capillaries are blocked – permanently – thus turning the concrete surface into a suitable substrate that prevents coating pinholes.

SCP 578 penetrates the concrete, reacts with free alkali in the concrete, and forms a gel in the concrete pores. This results in waterproofed concrete that has been tested to withstand over 250-feet of Head Pressure (75-meters).

To prevent failures due to moisture problems, every coating or covering should have SCP 578 applied first.

SCP 578 Benefits:

- Leaves mechanical key for coatings
- Normally requires one easy application
- Coatings and/or floor coverings can typically be applied in as little as 24-hours
- Odorless
- VOC free
- Environmentally friendly



Epoxy



Polyurea

SCP 743 for High Performance Concrete



SCP 743 is a zero-VOC, pre-mixed, spray-applied treatment that remediates reinforced concrete substrates.

SCP 743's unique technology penetrates concrete to protect embedded reinforcing steel. It also waterproofs and protects the matrix of fit-for-purpose concrete.

SCP 743 Benefits:

- Protects embedded reinforcing steel
- Rejuvenates concrete capillary & pore structure
- Ready to accept all coatings & coverings
- Improves resistance to chemical & environmental attack
- Permanent protection
- Access slabs in as little as 1-hour
- Minimizes mold & mildew
- Deters development of corrosion conditions in concrete
- Reduces shrinkage cracking and slab curl
- Superior curing system for new concrete

Coverage: 100-150 ft² per gallon

Industrial Facilities

Industrial sites are some of the most severe environments in which Portland cement concrete is expected to perform. Yet, oftentimes the durability of concrete is given very little consideration when compared to strength aspects.

Regarding concrete failures, former concrete industry giant Bryant Mather (formerly of the USACOE – Vicksburg, MS) once stated that, “About 25% of them will be structural failures and the other 75% will be durability problems.” This is why SCP 743 should be included as part of a comprehensive remediation program – it enhances the durability of existing and new concrete.

SCP 743 is formulated to address structural concrete issues such as:

- Reinforcing steel corrosion
- De-icing chemical & freeze-thaw damage
- Concrete contamination
- Moisture migration
- Concrete porosity
- Efflorescence
- Alkali-aggregate reactivity
- Concrete carbonation

SCP 743 is a spray-applied concrete treatment that enhances concrete remediation practices by providing the following benefits:

- Protects embedded reinforcing steel
- Waterproofs the concrete by forming a gel structure within the concrete capillaries & pores
- Can purge and/or encapsulate contaminants within the concrete capillary & pore structure
- Improves concrete pH to help protect the reinforcing steel
- Locks in free alkali to mitigate efflorescence



Pulp & Paper



Smelting



Power Generation

Infrastructure

Throughout the United States and the world, new construction cannot keep up with the growth of aging infrastructure. Infrastructure sustainability has become a critical issue. Aviation. Energy. Maritime. Municipal. Transportation. Water. Deficiencies in these important assets are revealed on a daily basis. Expecting and extending service lives well beyond the design lives has become the norm. Systematic Preventive Maintenance [SPM] is increasingly important.

Because SCP 743 is permanent, it can eliminate recurring maintenance expenses associated with typical penetrating sealers, thus preserving the condition and extending the life of infrastructure resources.

SCP 743 is formulated to address structural concrete remediation issues such as:

- Reinforcing steel corrosion
- De-icing chemical & freeze-thaw damage
- Concrete contamination
- Moisture migration
- Concrete porosity
- Efflorescence
- Alkali-aggregate reactivity
- Concrete carbonation

SCP 743 is a spray-applied concrete treatment that enhances concrete by providing the following benefits:

- Penetrates deep to protect reinforcing steel
- Waterproofs the concrete by forming a gel within the concrete capillaries & pores
- Can purge and/or encapsulate contaminants within the concrete capillary & pore structure
- Improves concrete pH to help protect the reinforcing steel
- Locks in free alkali to mitigate efflorescence



Transportation



Power Generation



Water Treatment



Locks & Dams

Maritime and Ports

Salt spray. Wind abrasion. Continuous moisture changes. Freeze-thaw conditions. These are some of the harsh conditions that structural concrete must withstand in Maritime Environments. Eventually, structural repairs will be required, and the remediation plan will need to address these durability issues. SCP 743 can extend the life of concrete!



Marine bridge remediation



Below sea level tunnel protection

SCP 743 for Maritime issues such as:

- Reinforcing steel corrosion
- De-icing chemical & freeze-thaw damage
- Concrete contamination
- Moisture migration
- Concrete porosity
- Efflorescence
- Alkali-aggregate reactivity
- Concrete carbonation

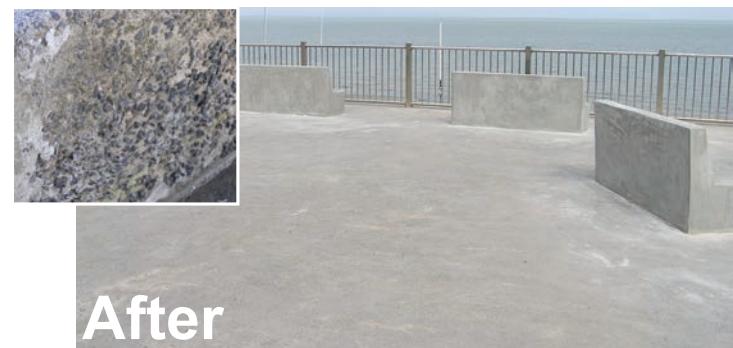
SCP 743 Benefits for Maritime Concrete:

- Penetrates to protect reinforcing steel
- Waterproofs concrete by forming a gel within the concrete capillaries & pores
- Can purge and/or encapsulate contaminants within the concrete capillary & pore structure
- Improves concrete pH to help protect reinforcing steel
- Locks in free alkali to mitigate efflorescence

SCP 743 rescues Life Saving Clubhouse that was exposed to almost 50-years of salt and wind attack in a severe marine environment.



Before



After

The Mentone Life Saving Clubhouse was built in 1963. For almost 50 years, the concrete structure incurred rainwater intrusion, salt attack, and prolonged leaks. Tens of thousands of dollars were spent on various crack repair technologies, cathodic protection, and other solutions, without success.

In 2010, the Club Council turned to SCP 743 technology. A single application of SCP 743 was applied to the entire roof before the structural cracks were filled with an elastomeric crack sealer. With SCP 743 in the concrete, the water leaks ceased. SCP 743 rescued the Mentone Life Saving Clubhouse roof.

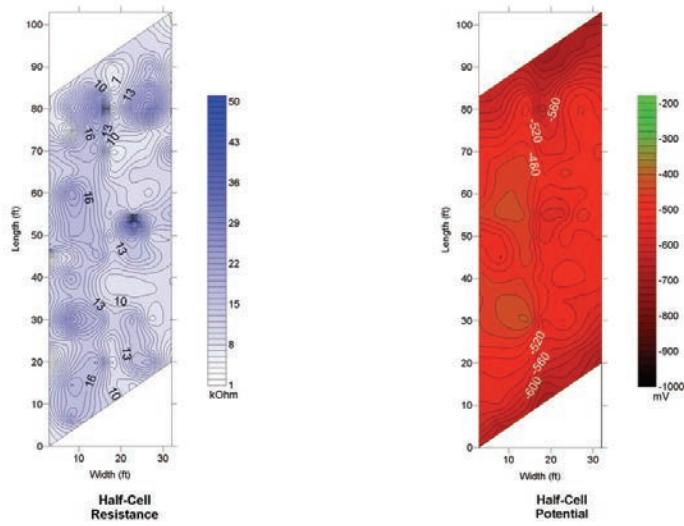
Transportation Structures - Pinellas County

SCP 743 greatly reduces corrosion potential in reinforced concrete structures.

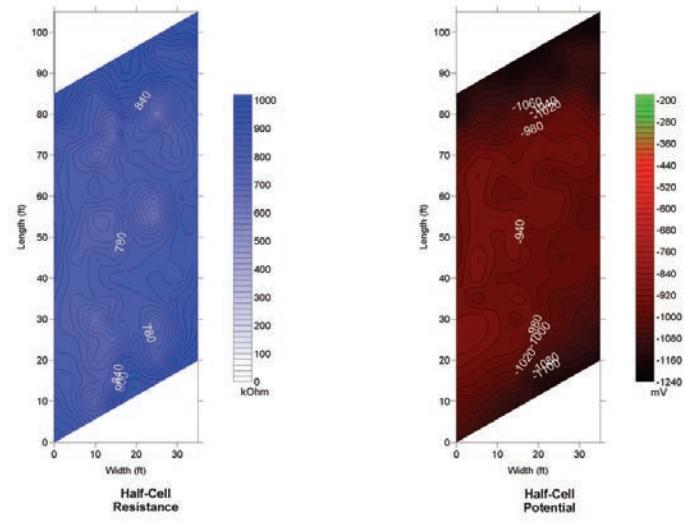
Cost-effective infrastructure management is a core discipline for transportation agencies throughout the world. SCP 743 provides a proven solution to save time and money on maintenance issues for these structures. From 2013 to 2014, Spray-Lock Concrete Protection®, LLC (SCP) completed a pilot project to evaluate the effectiveness of SCP 743 on mitigating bridge deck corrosion on four bridges in Lee, Manatee, and Pinellas counties in Florida. Testing was conducted on these structures prior to SCP 743 application and the bridges were tested again one month later.

After SCP 743 treatment, conditions within the bridge decks showed that the corrosion process was essentially shut down. Electrical resistance and resistivity were dramatically increased, and electrical potential measurements were decreased. [The electrical resistances increase means electrons cannot flow and the electrical potential decrease indicates a reduction in corrosion probability. Both electron flow and oxygen are required for corrosion to occur.] Results of one of the bridge desks [#154007] showed indications of purged salt [Chloride Ions]. These results confirm that SCP Technology has a significant impact on the long-term durability of reinforced concrete structures.

SCP 743 Before Treatment



SCP 743 After Treatment





SCP 743 Benefits:

- Waterproofs existing concrete
- Provides permanent chloride ion protection
- Reduced corrosion potential (ASTM C876)
 - Increased electrical resistance and resistivity
 - Decreased electrical potential measurements

About SCP

Spray-Lock Concrete Protection® (SCP) products are spray-applied treatments that penetrate into the concrete capillary and pore structure to provide permanent waterproofing and protection. SCP product features include: enhanced curing at time-of-placement; densification, strengthening and

Product Benefits

PRODUCT TESTING

Superior Cure at Time of Placement	ASTM C157 ASTM C39 AS 1012.9
Reduces Shrinkage Cracking & Slab Curl*	ASTM C157
Access Treated Areas in as little as 1-Hour	TESTIMONIALS
Waterproofs Concrete From Time-of-Placement	DIN 1048, Part 5, Section 7.6
Waterproofs Existing Concrete	DIN 1048, Part 5, Section 7.6
Minimizes Scaling & Spalling	ASTM C666
Accepts All Coatings & Coverings	ASTM C1583/C1583M ASTM E303
Leaves Mechanical Key for Coatings	ASTM C1583/C1583M ASTM E303
Enhances Chemical & Environmental Attack Resistance	ACID TEST DIN 1048, Part 5, Section 7.6 ASTM C1543 ASTM C666 ASTM C876
Increases Durability	ACID TEST DIN 1048, Part 5, Section 7.6 ASTM C1543 ASTM C666 ASTM C876
Rejuvenates Concrete Capillary & Pore Structure	ACID TEST
Protects Embedded Reinforcing Steel	ASTM D4464 DIN 1048, Part 5, Section 7.6 ASTM C1543 ASTM C876
Minimizes Mold & Mildew	TESTIMONIALS
Permanent Protection	TESTIMONIALS
Safe and Easy to Apply	EPA TEST METHOD 8260B
Saves Time & Money	TESTIMONIALS
Non-Flammable	MSDS
Zero VOC	EPA TEST METHOD 8260B
Coverage	

*At time-of-placement

surface hardening; minimized shrinkage cracking and slab curl; and enhanced resistance to salt or chemical attack for the life of the concrete. Environmentally safe with zero VOC content, SCP allows coatings and coverings to be successfully installed 14-days after concrete placement with no failure due to moisture migration through the concrete.

SCP 327

Time of Placement



SCP 578

Premium Concrete Protection



SCP 743

For High Performance Concrete



140-180 ft² per gal

140-180 ft² per gal

100-150 ft² per gal



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