

SIL-ACT® Product Data

DECK-SIL® 1700 System



ADVANCED
CHEMICAL
TECHNOLOGIES, Inc.

"Protecting the World's Infrastructure"

Dual Layer Concrete Deck Sealing & Refurbishment

DECK-SIL® Product for Use under U.S. Patent No. 9,242,269

DESCRIPTION & BENEFITS

DECK-SIL® 1700 series is a unique concrete infrastructure sealing system comprised of two well-proven product technologies. These two technologies are applied as a system to provide a dual layer of protection.

The DECK-SIL® 1700 series combines the proven concrete protection of DECK-SIL® PS 1700 silane with the low viscosity crack and surface sealing benefits of DECK-SIL® EP 1700.

DECK-SIL® 1700 series shows a significant increase in penetration of DECK-SIL® PS 1700 silane. This deeper penetration of the silane promotes improved performance of the silane. The combined effect of the DECK-SIL® 1700 series promotes longer bridge life due to deeper silane penetration and the flood coat filling performance of the DECK-SIL® EP 1700.

COMPONENTS

DECK-SIL® PS 1700 – is a clear penetrating treatment, that causes concrete to become repellent to water, chloride, waterborne contaminants and other weathering elements, preventing the premature deterioration of concrete and masonry structures.

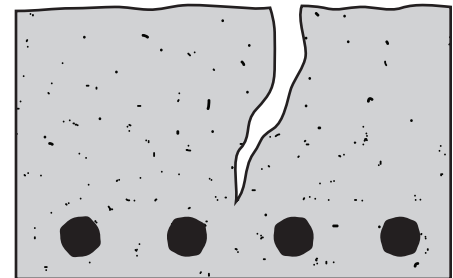
DECK-SIL® EP 1700 – two-component, low viscosity, epoxy polymer specially formulated to provide a protective barrier and extend the life of concrete surfaces. The low viscosity allows deep penetration into the smallest cracks, providing a protective barrier against the ingress of water, salts, ions and other waterborne contaminants, thus greatly extending the service life of concrete structures.

BENEFITS

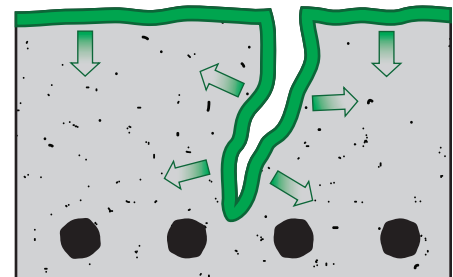
- Alternative to full overlay system
- Quick turnaround
- One time surface preparation – saves time and money
- Extra protection with no extended lane closure time
- Dual layer protection – extends life of structure

Only DECK-SIL® 1700 series offers these unique benefits.

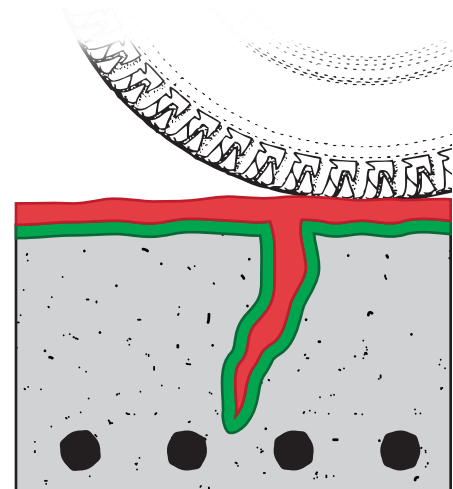
Concrete surface with cracking needing repair.



Step 1. Apply DECK-SIL® PS 1700 treatment which penetrates into the concrete.



Step 2. Apply DECK-SIL® EP 1700 treatment to heal and seal surface.



Even after extensive traffic wear, the surface remains sealed against water ingress.

TECHNICAL DATA

PROPERTY	TEST	DECK-SIL® PS	
Active Ingredient		Alkyltrialkoxysilane	
Specific Gravity	Method 24, ASTM D-5095	0.92	
Density		7.68 lb/gal	
Active Content		100% active	
VOC Content		< 350 g/L	
Appearance		Clear	
Surface Appearance after Application		Unchanged	
Drying time at 70°F		1 hour	
Chloride ION Penetration	AASHTO T 259/T 260	0.008% @ 1/2-inch depth 0.005% @ 1-inch depth	
Chloride Reduction	AASHTO T 259/T 260	96.7% @ 1/2-inch depth 96.4% @ 1-inch depth	
		DECK-SIL® EP	
Property	Requirement	Standard	Result
Viscosity (LVT #1 @ 60 RPM @ 73° F)	≤ 50 cP	ASTM C881	39.5 cP (3.7% Torque)
Slant Shear (14 day moist cure @ 73°F/95% RH)*	≥ 1500 psi	ASTM C882	1649 psi avg
Water Absorption (7 day cure @ 73°, 24 hrs immersed)*	≤ 1.0%	ASTM D570	0.216%
Tensile Strength (Type I Bar @ 2"/min - 7 day cure @ 73°F)*	≥ 2500 psi	ASTM D638	3757 psi avg
Elongation (Type I Bar @ 2"/min - 7 day cure @ 73°F)*	≥ 2 %	ASTM D638	24.7% avg
Gel Time (60 grams @ 73°F)	≥ 30 min	AASHTO M 235	> 2 hr 30 min
Percent Volatile (24 hrs @ 23°C/1 hr @ 100°C of Cured Epoxy)	≤ 30 %	ASTM D 2369	21.77% avg
* Prior to reduction			

WARRANTY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure: That ACT's products are safe, effective, and fully satisfactory for the intended end use. ACT's sole warranty is that the product will meet the ACT's sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. ACT's specifically disclaims any other express or implied warranty of fitness for a particular purpose or merchantability, unless ACT provides you with a specific, duly signed endorsement of fitness for use. ACT disclaims liability for any incidental or consequential damages. Suggestions of use shall not be taken as inducements to infringe any patent.

ADVANCED CHEMICAL TECHNOLOGIES, INC.

"Protecting the World's Infrastructure"
Technical Binder

