EUCLID CHEMICAL

CURING & SEALING CONCRETE

SOLUTIONS



CURING COMPOUNDS

SOLVENT BASED CURE & SEALS

WATER BASED CURE & SEALS

PENETRATING SEALERS

FILM-FORMING SEALERS

CURING & SEALING CONCRETE

THE CURING AND SEALING PERFORMANCE YOU DEMAND. THE ENVIRONMENTAL RESPONSIBILITY YOU EXPECT.

Euclid Chemical offers a full range of curing and sealing products that meet the toughest environmental and performance standards in the marketplace today. All of your concrete and masonry curing, sealing, and protection challenges can be met with Euclid Chemical's:

- Low VOC products - both solvent based and water based - that comply with clean air regulations in the U.S. and Canada
- Products that can contribute toward the LEED certification of a project, including LEED v4 projects requiring CDPH v1.1/1.2 certified products
- Sealers that are uniquely formulated for enhancing and protecting decorative concrete
- Products guaranteed not to yellow in sunlight
- Products that can be used in USDA and FDA inspected facilities.
- Penetrating sealers that protect concrete from the damaging effects of water and salt
- Liquid densifiers for dustproofing, sealing, and strengthening concrete surfaces

We encourage you to contact us with your questions and concerns.

THE BASICS OF CURING AND SEALING CONCRETE

Curing is the action taken to maintain moisture and temperature conditions in a freshly placed concrete mixture to allow cement hydration to occur at a controlled rate, so that the desirable properties of the concrete may develop to their fullest potential. When concrete is not properly cured, its strength, durability, appearance, and resistance to freeze-thaw damage will suffer.

There are three general methods for curing new concrete:

- **Wet curing** or **water curing** involves keeping a continuous supply of water on the concrete surface, usually via ponding or fogging, for at least seven days. Often, this is not practical for concrete work, as it makes it difficult to impossible for other trades to continue work on the project while the curing is taking place.
- **Moisture-retaining coverings**, such as plastic sheeting, wet burlap, or curing blankets, can be placed over the freshly finished concrete surface. These coverings can be challenging to work and walk on, and can leave stains or marks on the concrete surface if placed and maintained improperly.
- **Liquid membrane-forming curing compounds** and **curing and sealing compounds** are materials that are sprayed and rolled onto freshly finished concrete surfaces, and dry to form hardened films that facilitate proper cement hydration and strength gain in the concrete. Curing and sealing compounds, aside from their ability to retain moisture in fresh concrete, have the added benefit of providing a longer-lasting protective and decorative seal on the surface.

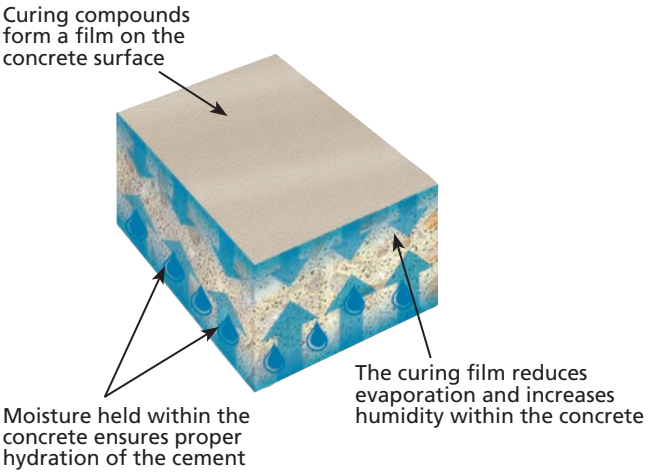
For projects requiring liquid membrane-forming curing compounds or curing and sealing compounds, Euclid Chemical offers a wide variety of products to meet any combination of curing needs.

BENEFITS OF KEEPING CONCRETE SEALED

Keeping concrete sealed will help prevent water from soaking into the concrete, where it can do damage either by freezing or by corroding the reinforcing steel in the slab. A sealer can also act as a sacrificial layer to protect the concrete itself from abrasion and wear due to traffic. Concrete sealers can also enhance the color and impart an attractive shine to concrete, which is especially beneficial on stamped, integrally colored, and stained or dyed surfaces.

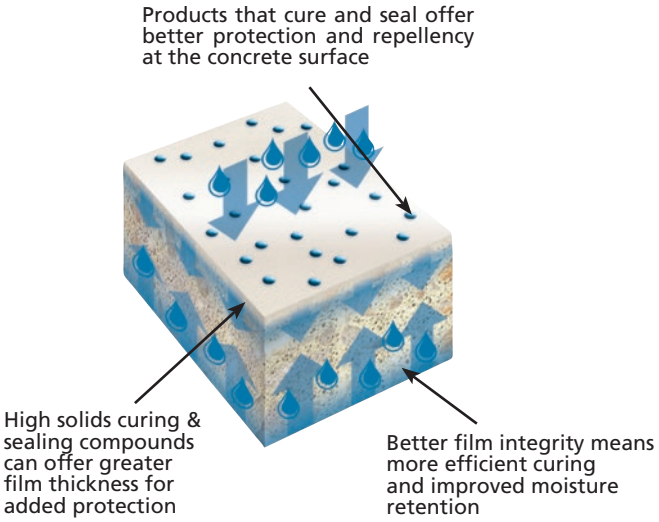
Penetrating sealers, based on silane or siloxane technology, are especially useful on concrete subjected to water and salt exposure and freeze-thaw cycling. They have a unique ability to prevent water and salt from soaking into concrete and corroding reinforcing steel. Liquid densifiers are most often used indoors to dustproof concrete floors, make the surface denser, and reduce dusting. Both penetrating sealers and densifiers typically do not change the appearance of treated concrete.

FEATURES	CURE & SEAL	PENETRATING
Provides Color Enhancement & Gloss	●	
Longevity		●
Best Water & Salt Repellency		●
Most Economical Price	●	



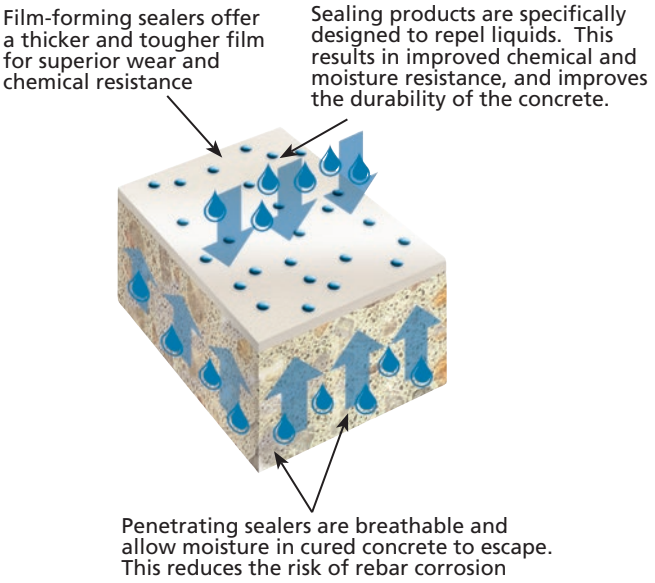
CURING PRODUCTS

All Euclid Chemical curing compounds meet the requirements of ASTM C 309, are easy to apply, and provide a cost-effective method for initial curing of concrete. A proper cure is vital to full development of concrete's strength and durability. White pigmented curing compounds are available to help reflect sunlight and provide a visual inspection of coverage. Euclid Chemical also provides dissipating and removable curing compounds that are excellent choices for curing when a sealer, coating, or covering will be applied to the concrete at a later date.



CURING AND SEALING PRODUCTS

Concrete curing and sealing compounds have the added benefits of protecting the surface after the curing process is complete, and enhancing the surface appearance with a glossy shine. All Euclid Chemical products designed for curing and sealing meet the requirements of ASTM C309, and many of the products are higher-solids formulations to also meet the requirements of ASTM C1315. Euclid Chemical's curing and sealing line includes traditional solvent-based products, exempt solvent-based products for VOC-regulated areas, as well as water-based, low-odor products for all application environments.



LIQUID SEALING PRODUCTS & DENSIFIERS

There are two general types of concrete and masonry sealers: film-forming and penetrating. Film-forming sealers reduce penetration of water and contaminants by forming a barrier on the concrete surface; they also darken the concrete and provide varying levels of gloss, giving the substrate a "wet look".

Penetrating sealers and densifiers soak into the concrete or masonry surface and chemically react in the pores to produce a water and chloride repellent barrier. Penetrating sealers last longer than film-forming sealers, and provide protection without changing the appearance. Liquid densifiers are a type of penetrating sealer that both seal the concrete surface and increase the surface density and toughness.

Euclid Chemical offers three types of concrete and masonry sealers:

- Penetrating **silane and siloxane** sealers, in water based, solvent based, and 100% active fomulations
- Film-forming **epoxy** sealers that give an enhanced, glossy appearance and protection against water and some mild chemicals
- **Silicate and siliconate** based liquid densifiers that penetrate and chemically react with the concrete to dustproof and improve the durability of the surface

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PERFORMANCE ADVANTAGES

	PRODUCTS	ASTM C309	ASTM C1315	NCHRP 244	Non-Yellowing	Dissipating	Chemical Resistance	<350 g/L VOC	<100 g/L VOC
CURING COMPOUNDS	Kurez DR VOX	✓				✓		✓	
	Kurez DR-100	✓				✓		✓	✓
	Tammscure WB	✓				✓		✓	✓
SOLVENT BASED CURE & SEALS	Super Diamond Clear	✓	✓		✓				
	EverClear	✓	✓		✓				
	Diamond Clear	✓	✓		✓				
	Luster Seal 300	✓	✓		✓				
	Super Rez-Seal	✓	✓						
	Rez-Seal	✓	✓						
	BrownTown CS	✓	✓		✓				
LOW VOC, EXEMPT SOLVENT CURE & SEALS	EverClear 350	✓	✓		✓			✓	
	Super Diamond Clear 350	✓	✓		✓			✓	
	Diamond Clear 350	✓			✓			✓	
	Luster Seal 350	✓	✓		✓			✓	
	BrownTone CS 350	✓	✓		✓			✓	
WATER BASED CURE & SEALS	EverClear VOX	✓			✓			✓	✓
	Diamond Clear VOX	✓			✓			✓	✓
	Super Diamond Clear VOX	✓	✓		✓			✓	✓
	Aqua-Cure VOX	✓						✓	
	Super Aqua-Cure VOX	✓	✓					✓	
	Eucocure VOX	✓						✓	
	BrownTone VOX	✓			✓			✓	✓
PENETRATING SEALERS	Baracade Silane 100 C			✓	✓			✓	
	Baracade Silane 40			✓	✓				
	Baracase Silane 40 WB			✓	✓			✓	
	Barace WB 244			✓	✓			✓	✓
	Chemstop WB Regular, Heavy Duty				✓			✓	✓
	Euco-Guard 100			✓	✓				
	Euco-Guard 350				✓			✓	
	Weather-Guard				✓				
LIQUID DENSIFIERS	Euco Diamond Hard				✓			✓	✓
	UltraSil DC9	✓*			✓			✓	✓
	UltraSil Li+				✓			✓	✓
	Eucosil				✓			✓	✓
	Surfhard				✓			✓	✓
FILM-FORMING SEALERS	Euco #512 VOX Epoxy Sealer						✓	✓	✓
	Dural 50 LM						✓	✓	✓
	Dural 335						✓	✓	✓

* Meets the moisture retention requirement of ASTM C309 on hard-troweled, interior concrete

The Euclid Chemical Company serves the global building market as an ISO 9001:2000 supplier of specialty products and support services the for the concrete and masonry construction industry. Marketed under the Baracade, Dural, Euco, Eucon, Speed Crete and Tamms brands, we offer a full line of admixtures, repair and maintenance products based on the latest technologies. We provide complete assistance and laboratory support as well as on-site service for guidance on proper product usage. EUCO materials are warehoused in over 200 locations in the USA and are available worldwide through international affiliates.

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PRODUCT ADVANTAGES

CURING COMPOUNDS	ADVANTAGES
KUREZ DR VOX Dissipating curing compound	• Dissipates over time with exposure to UV light and traffic
KUREZ DR-100 Low VOC dissipating curing compound	• Less than 100 g/L VOC content
TAMMSCURE WB Water-based, dissipating curing compound	• Economical

SOLVENT BASED CURING AND SEALING COMPOUNDS	ADVANTAGES
SUPER DIAMOND CLEAR High solids, non-yellowing acrylic blend	• Highest performance non-yellowing cure and seal • Excellent for architectural concrete • Good for re-sealing
EVERCLEAR Breathable, 100% acrylic	• Excellent sealer for decorative concrete • Non-yellowing • Enhances color and texture
DIAMOND CLEAR Non-yellowing acrylic blend, low viscosity	• Non-yellowing • Excellent for initial curing and sealing of concrete
LUSTERSEAL 300 Pure acrylic sealer	• Non-yellowing
SUPER REZ-SEAL High solids acrylic polymer blend	• High viscosity formulation provides greater coverage • Excellent curing, durable seal
REZ-SEAL Acrylic co-polymer, low viscosity	• Good initial cure • Seals surface to dustproof and protect
BROWNTONE CS Pigmented cure & seal for exposed aggregate concrete	• Highlights tone of exposed aggregate concrete surfaces • Excellent seal for exposed aggregate precast panels

LOW VOC, EXEMPT SOLVENT BASED CURING AND SEALING COMPOUNDS	ADVANTAGES
EVERCLEAR 350 Exempt solvent, pure acrylic cure & seal	• Low VOC • Enhances decorative concrete • Non-yellowing, breathable formula
SUPER DIAMOND CLEAR 350 Exempt solvent, cure & seal	• Low VOC • Non-yellowing
DIAMOND CLEAR 350 Low solids, non-yellowing	• Cures new concrete • Easy to apply
LUSTERSEAL 350 Exempt solvent, pure acrylic cure & seal	• Low VOC • Non-yellowing • Quick dry time is helpful in cool weather
BROWNTONE CS 350 Pigmented cure & seal for exposed aggregate concrete	• Enhances color • Provides a glossy appearance

WATER BASED CURING AND SEALING COMPOUNDS	ADVANTAGES
EVERCLEAR VOX Pure acrylic, low VOC cure & seal	• VOC compliant nationwide • Blush resistant
DIAMOND CLEAR VOX Non-yellowing acrylic polymer blend	• Non-yellowing
SUPER DIAMOND CLEAR VOX Non-yellowing, high solids	• High solids, best curing and gloss • Non-yellowing
AQUA-CURE VOX Low odor cure & seal	• Good for interior use
SUPER AQUA-CURE VOX High solids, low odor	• High solids formula
EUCOCURE VOX Acrylic co-polymer cure & seal	• Economical • Good initial cure & protection
BROWNTONE VOX Brown pigmented cure & seal	• Low VOC • Highlights color

LIQUID DENSIFIERS	ADVANTAGES
EUCO DIAMOND HARD Silicate/siliconate densifier & sealer	• Improves surface durability • Dustproofs and seals • Reduces tire marking
ULTRASIL DC9 Silicate densifier and cure for concrete	• Meets moisture retention requirement of ASTM C309 on troweled, interior concrete • Will not inhibit adhesion of sealers, coatings, toppings, or coverings
ULTRASIL LI+ Lithium silicate densifier	• Seals and densifies floors • Easy to apply
EUCOSIL Sodium silicate densifier	• Densifies and dustproofs • Economical
SURFHARD Fluorosilicate remedial dustproofer	• Improves surface durability of dusting floors

PENETRATING SEALERS	ADVANTAGES
BARACADE SILANE 100 100% silane	• Highest performance • Prevents damage from water and chlorides • Low VOC formulation
BARACADE SILANE 40 Solvent-based silane	• Deep penetrating formulation • Excellent water and chloride barrier • Available in an IPA formulation
BARACADE SILANE 40 WB Water-based silane	• Excellent water and chloride barrier • <350 g/L VOC content
BARACADE WB 244 High performance water based silane/siloxane-blend	• Water and salt repellent for concrete pavement and floors • Low VOC, low odor • Meets NCHRP 244 standards
CHEMSTOP WB REGULAR, HEAVY DUTY Water-based silane/siloxane	• Low VOC water and salt repellents • Two formulations for customized performance
EUCO-GUARD 100 Solvent-based siloxane	• Water and salt repellent for concrete pavement
EUCO-GUARD 350 Low-VOC solvent-based siloxane	• Water and salt repellent for concrete and masonry
WEATHER-GUARD Economical solvent-based siloxane	• Water repellent especially suited for vertical concrete and masonry

FILM-FORMING SEALERS	ADVANTAGES
EUCO #512 VOX EPOXY SEALER Water based epoxy sealer	• Low VOC, low odor • Provides chemical resistance
DURAL 50 LM Low viscosity epoxy sealer	• Heals hairline cracks; seals surfaces • 100% solids formula

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TROUBLESHOOTING GUIDE

When a film-forming concrete sealer does not perform properly, or the appearance is not what was expected, the cause can usually be traced back to improper product selection or application. Most problems can be avoided by carefully reading the product's technical data sheet before use. For step-by-step application instructions, watch Euclid Chemical's solvent based sealer application video on YouTube or at euclidchemical.com.

NOTE: This information is supplied as a general guide to troubleshooting concrete sealer issues. Each situation is different, and results may vary. Whatever remediation method is chosen should be performed on a small test section before addressing the entire area to determine if the results are acceptable.

Why did the sealer bubble?

Cause: Product was applied too heavily, or in hot weather/direct sun.

Prevention: Carefully follow manufacturer's recommended coverage rate and apply during the coolest part of the day when concrete is not in direct sun. Two thin coats should be applied rather than one heavy coat.

Why did the sealer turn white?

Cause: Product was applied too heavily or there are too many coats of sealer on the concrete, and moisture trapped underneath the sealer has caused it to lose adhesion from the concrete.

Prevention: Follow manufacturer's recommended coverage rate; do not re-seal concrete until previous coat(s) have worn away or have been stripped off.

Why is the sealer peeling or flaking off?

Cause: Product was applied too heavily or there are too many coats of sealer on the concrete OR concrete was not prepared properly before application. Since concrete cure and seal products last 1 to 3 years, some peeling and flaking should be expected as the product wears away, especially in areas of high traffic or direct sunlight.

Prevention: Follow manufacturer's recommended coverage rate and preparation methods; do not re-seal concrete until previous coat(s) have worn away.

Why did a water-based sealer turn milky-white or powdery?

Cause: Product was applied in low temperature or high humidity conditions or where air flow is low (basement, closed garage, etc.) OR product was applied too heavily.

Prevention: Follow manufacturer's recommended coverage rate and application conditions.

Why are oil, leaves, tires, fertilizer, etc. staining the sealer?

Cause: Most concrete sealers will not prevent stains.

Prevention: Prevent oil and other chemical drips from cars and equipment. Sweep tree debris and fertilizer granules from concrete as often as possible.

Why is the concrete dark and blotchy after the sealer was applied?

Cause: Uneven application or wrong product choice.

Prevention: Follow the application methods on the product's technical data sheet.

EUCLID CHEMICAL

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