

Flowcrete
for the world at your feet



EUCLID CHEMICAL



CONCRETE CURE & SEAL

- ▶ Concrete surface protection for minimising ingress of contaminating materials in new construction and existing concrete surfaces.

www.flowcreteasia.com/euclid-chemical

Concrete Cure & Seal

Concrete, although one of the most durable man-made building materials, is inherently porous, with a large number of air pockets. When concrete is not properly cured, its strength, durability, appearance and resistance to freeze-thaw damage will suffer.

Sealing concrete will prevent water and contaminants from soaking into the concrete causing damage by corroding the reinforcing steel in the slab. The surface will become a dustproof and easier to clean finish that will help prevent staining (if cleaned promptly) and enhance the concrete's abrasion and wear resistance properties. What's more, some concrete sealers can provide an additional shine to the surface, ideal for application on stamped, integrally coloured and dyed substrates.

The Euclid Chemical Company, represented by Flowcrete Asia across Asia Pacific, offers a range of curing and sealing products designed to protect and beautify concrete floors in both industrial and commercial environments.

Application Suitability



Warehouses & Distribution



Manufacturing



Transport & Airports



Retail Environments



Car Showrooms



Contemporary Office Design

Performance Advantages

	ASTM C 309	ASTM C 1315	NCHRP 244	Non-Yellowing	LADCO, OTC, Maricopa County VOC Compliant	California (SCAQMD) VOC Compliant	USDA
Solvent Based Cure & Seals							
Everclear M	•	•		•			•
Water Based Cure & Seals							
 Everclear VOX	•	•		•	•	•	•
Aqua-Cure VOX	•				•		•
Super Aqua-Cure VOX	•	•			•		•
Euco cure VOX	•				•		•
Penetrating Sealers							
 Euco Diamond Hard				•	•	•	•
 Ultrasil Li+				•	•	•	•
 Eucosil				•	•	•	•
 Surfhard				•	•	•	•
Euco-Guard 100			•	•			•
Barcade Silane 100 C			•	•	•		•
Weather-Guard				•			•
Barcade M.E.			•	•	•		•

Technical Profile

ADHESION TO CONCRETE	
Excellent	
ALKALI RESISTANCE (48 HOUR EXPOSURE)	
Excellent	
RESISTANCE TO YELLOWING FROM UV EXPOSURE	
Excellent	
SOLIDS CONTENT	
> 25%	
MOISTURE LOSS	
ASTM C 156	< 0.40 kg/m ²
SPEED OF CURE	
23°C / 50% RH	
Dry to Touch	< 1 hour
Recoat	4 to 24 hours
Foot Traffic	4 to 6 hours
Wheeled Traffic	6 to 10 hours

Everclear M



A clear, non-yellowing pure acrylic cure & seal that protects and enhances the appearance of concrete.

Everclear M is specially formulated to enhance the colour of stamped concrete, exposed aggregate, and coloured concrete pavers while providing protection against the damaging effects of traffic, weather, and de-icing salts.

- Pure acrylic formulation ensures no yellowing and a more breathable seal
- Enhances the appearance of coloured concrete
- Harder and more durable than standard polymer blend cure & seals

Everclear VOX



A non-yellowing, water-based pure acrylic sealer for concrete with excellent blush resistance.

Everclear VOX dries to an attractive clear, matt finish, but a higher gloss can be achieved with additional coats.

- Low odour
- Excellent abrasion and blush resistance
- Can be applied over previous coats of water- or solvent-based sealers

Technical Profile

VISCOSITY	
5 cps	
APPEARANCE	
Milky White (Wet), Crystal Clear (Dry)	
SOLIDS CONTENT	
> 25%	
WEATHEROMETER CYCLING (@100 HOURS)	
No yellowing or loss of gloss	
BLUSH RESISTANCE	
Excellent*	
SPEED OF CURE	
23°C / 50% RH	
Dry to Touch	< 1 hour
Foot Traffic	4 to 6 hours
Wheeled Traffic	6 to 10 hours

*Slight blushing is possible during the first one or two wetting and drying cycles after sealer application. Fully dried Everclear VOX is extremely blush resistant.



Technical Profile

SOLIDS CONTENT

15%

MOISTURE LOSS

ASTM C 156 < 0.55 kg/m²

SPEED OF CURE

Dry to Touch 1 to 2 hours

Recoat 2 to 4 hours

Foot Traffic 4 to 6 hours

Wheeled Traffic 6 to 10 hours

Aqua-Cure VOX



A water-based acrylic polymer curing and sealing compound.

Aqua-Cure VOX is suitable for use over new and old concrete and performs well on both interior and exterior surfaces. It enables fresh concrete to maintain adequate moisture, seals the surface, and provides an attractive sheen.

Did You Know?

Aqua-Cure VOX forms an efficient moisture barrier for optimum curing of concrete and seals both new and existing concrete surfaces to protect against the often harmful effects of weathering.



Dries to a clear transparent film that resists yellowing under UV exposure



An alternative to solvent-based materials



Increases durability by promoting proper cement hydration



Technical Profile

SOLIDS CONTENT	
> 25%	
MOISTURE LOSS	
ASTM C 156	< 0.40 kg/m ²
SPEED OF CURE	
23°C / 50% RH	
Dry to Touch	1 to 2 hours
Recoat	2 to 4 hours
Foot Traffic	4 to 6 hours
Wheeled Traffic	6 to 10 hours

Super Aqua-Cure VOX



A high solids water based acrylic polymer curing & sealing compound.

Super Aqua-Cure VOX is suitable for use over new and old concrete and performs well on both interior and exterior surfaces. It enables fresh concrete to maintain adequate moisture, seals the surface, and provides an attractive sheen.

Did You Know?

Super Aqua-Cure VOX may be placed on top of a previous coat of the same product within 2 to 4 hours of the first application. If a second coat is applied over 4 hours after the first, the first coat should be deglossed.



High solids content permits greater coverage and better durability



Good surface strength development helps eliminate dusting of new concrete



Can contribute to LEED points (VOC content <200 g/L)

Eucocure VOX



An economical water based acrylic curing and sealing compound.

Eucocure VOX assists in maintaining adequate moisture content while new concrete is curing, providing moderate protection against water penetration with a low sheen appearance.



Low odour



Can contribute to LEED points (VOC content 123 g/L)



Suitable for interior and exterior applications

Technical Profile

VISCOSITY	
5 to 15 cps	
SOLIDS CONTENT	
15%	
MOISTURE LOSS	
ASTM C 156	< 0.40 kg/m ²
SPEED OF CURE	
23°C / 50% RH	
Dry to Touch	1 hour
Recoat	2 to 4 hours

Did You Know?

Heavy applications, applying in cool or cold weather, or prolonged exposure to moisture may cause this product to have a milky appearance. Dry conditions will allow the product to become clear again.

Technical Profile

VOC CONTENT

≤5 g/L

ABRASION RESISTANCE

ASTM C 779
(Compared to untreated
concrete)

30 mins: ~80%
improvement
60 mins: ~20%
improvement

COEFFICIENT OF FRICTION

ASTM F 1679

Dry: 0.81
Wet: 0.72

LIQUID REPELLENCY: (RILEM METHOD 11.4)

Water absorbed in 24
hours

Untreated Concrete: 5 ml
Treated Concrete: 1 ml

SPEED OF CURE

21°C

Light Traffic

4 to 6 hrs

Full Traffic

24 hrs

Euco Diamond Hard



A liquid densifier and sealer which penetrates, reacts and bonds within the surface to produce a harder, dust-proof and liquid repellent surface.

Euco Diamond Hard provides an attractive, slip resistant sheen to concrete that never peels, fades or wears away.



Reduces porosity and increases durability of the concrete surface



Minimises tyre marks and enables them to be more easily cleaned and removed



Can be applied quickly and easily to new or existing concrete





Application Suitability

✓	Warehousing Facilities
✓	Distribution Centres
✓	Manufacturing Plants
✓	Retail Outlets & Supermarkets

The Science Behind Euco Diamond Hard



1 CSH GEL

The silicate in EUCO Diamond Hard reacts to form extremely hard crystals in the pores of concrete surfaces.



2 SILICONATE

The siliconate in EUCO Diamond Hard also reacts to create a liquid-repellent seal on the concrete surface.



3 CSH GEL & SILICONATE BLEND

The synergistic activity of the silicate & siliconate blend in EUCO Diamond Hard seals and strengthens the concrete.

How Does it Work?

The silicate compounds present in reactive sealers chemically react with soft calcium hydroxide (also known as portlandite) in the surface to produce a much harder calcium silicate hydrate (CSH) – the primary strength-providing portion of concrete paste. The siliconate also reacts with the concrete to form a hydrophobic polymer within the pores and on the concrete surface resulting in a strong, liquid repellent surface.

Technical Profile

VOC CONTENT	
<5 g/L	
SPECIFIC GRAVITY	
1.10	
PH	
11.7	
SOLIDS / ACTIVE CONTENT	
15%	
FREEZE POINT	
0°C	
DENSITY	
1.1 kg/L	
SPEED OF CURE:	21°C
Light Traffic	4 to 6 hrs

UltraSil Li+



A water-based lithium silicate solution used to densify, seal and dustproof concrete surfaces.

UltraSil Li+ penetrates and forms dense calcium silicate hydrate particles that block concrete pores, resulting in a more durable, easier to clean surface that never fades away.

- Seals, densifies and dustproofs in one application
- Permanent treatment that never peels off
- Can contribute to LEED points (EQ Credit 4.2)

Eucosil



Technical Profile

VOC CONTENT	
>5 g/L	
SPEED OF CURE:	21°C
Light Traffic	4 to 6 hrs
Full Traffic	24 hrs

A reactive water-based sodium silicate sealer solution used to densify and dustproof concrete.

Eucosil introduces additional sodium silica that reacts with the excess calcium hydroxide to form more CSH becoming an integral part of the surface, making it denser and easier to maintain.

- Seals, densifies and dustproofs in one application
- Treated concrete resists penetration of water and many chemical substances
- Water based formulation with no odour and low VOC content

Did You Know?

What makes silanes, siloxanes, and siliconates different from other coatings is the fact that they actually penetrate into the concrete to create a protective barrier.

Other sealers such as acrylic, epoxy, and polyurethanes are topical in nature. Which means they sit on the surface and form a protective film or coating.



Chemical Resistance

✓	Acetone
✓	Alkaline Detergent Cleaning Solution
✓	Ammonium Hydroxide
✓	Ammonium Nitrate
✓	Automatic Transmission Fluid
✓	Benzene/Xylene
✓	Benzyl Alcohol
✓	Brake Fluid
✓	Calcium Chloride
✓	Cola
✓	Concentrated Ammonium Hydroxide
✓	Ethyl Alcohol (Ethanol)
✓	Formaldehyde
✓	Gasoline/Jet Fuel
✓	Ketchup
✓	Mustard
✓	Skydrol
✓	Sodium Bicarbonate
✓	Sodium Chloride
✓	Urea






Surfhard



A water-based magnesium fluorosilicate solution that densifies and dustproofs concrete.

Surfhard reacts chemically with the alkaline materials in the concrete, strengthening weak, soft, or dusting surfaces and providing a degree of chemical resistance.

-  Prolongs floor life by densifying and dustproofing concrete surfaces
-  Resistant to acids, alkalis, oils and salts
-  Can contribute to LEED points

Technical Profile

VOC CONTENT	
<5 g/L	
SPEED OF CURE	
Foot Traffic	21°C 4 to 6 hrs
Wheeled Traffic	4 hrs

Appearance

Surfhard is a clear liquid that does not change the colour or appearance of concrete, however, immediately after application, the colour of the treated concrete may initially appear darker.

As Surfhard cures and dries out, the treated concrete will have little change in appearance. Treated concrete will slightly bead water and other liquids.

Technical Profile

FLASH POINT	
41°C	
VOC CONTENT	
730 g/L	
SOLIDS CONTENT	
10%	
SPEED OF CURE	23°C / 50% RH
Foot Traffic	4 to 6 hours
Wheeled Traffic	10 to 12 hours

Euco-Guard 100



A deep penetrating siloxane sealer designed to protect concrete structures and surfaces against weathering and freeze damage.

Euco-Guard 100 reacts with either new or old concrete to provide a highly effective chloride screen and water barrier.

Did You Know?

Euco-Guard 100 is a clear, solvent based material that has virtually no effect on the appearance of dry concrete once dry. Treated concrete will cause water to bead on the surface.



Blocks pores and capillaries for outstanding water repellency



Protects reinforcing steel against the corrosion from chlorides and moisture



Provides a low cost protection system over the life of a structure

Baracade Silane 100 C



A breathable, colourless, non-yellowing, deep penetrating water repellent for concrete and masonry.

Baracade Silane 100 C produces a hydrophobic treatment to reduce water absorption, protecting concrete, block, stone and brick against weather damage and contaminants.



Reduces water absorption



Protects against air-borne contaminants, such as acid rain



Protects against damaging effects of water intrusion & deicing chemicals

Technical Profile

FLASH POINT
63°C
VOC CONTENT
248 g/L
UV RESISTANCE
Excellent
ABRASION RESISTANCE
Excellent
AVERAGE DEPTH OF PENETRATION
5mm

Did You Know?

100% silane formulations exhibit low volatility and higher coverage rates than solvent based silane materials.



Technical Profile

FLASH POINT	
40°C	
SOLIDS CONTENT	
5%	
VOC CONTENT	
749 g/L	
WATER ABSORPTION	
ASTM C 67 (multi-celled brick raked face, 24 hr immersion)	1.1 kg/L
SPEED OF CURE	
21°C	
Drying Time	4 to 6 hrs
Traffic	6 to 8 hours

Weather-Guard



A siloxane penetrating sealer that protects concrete and masonry surfaces from weathering.

Weather-Guard penetrates the surface pores and reacts chemically to provide a barrier against the effects of freeze/thaw cycling, precipitation, acid rain, efflorescence, and dust/dirt degradation.



Preserves a natural appearance without membrane build-up



Allows surfaces to breathe while providing high water repellency



Easy to apply requiring only low pressure spraying equipment

Baracade M.E.



An oligomeric alkyl alkoxy siloxane concentrate to repel water without altering the appearance or texture of the treated concrete surface.

Baracade M.E. is a breathable material that seals out moisture, reduces efflorescence and minimises the damaging effects of freeze-thaw cycles.



Suitable for vertical and horizontal applications depending on dilution



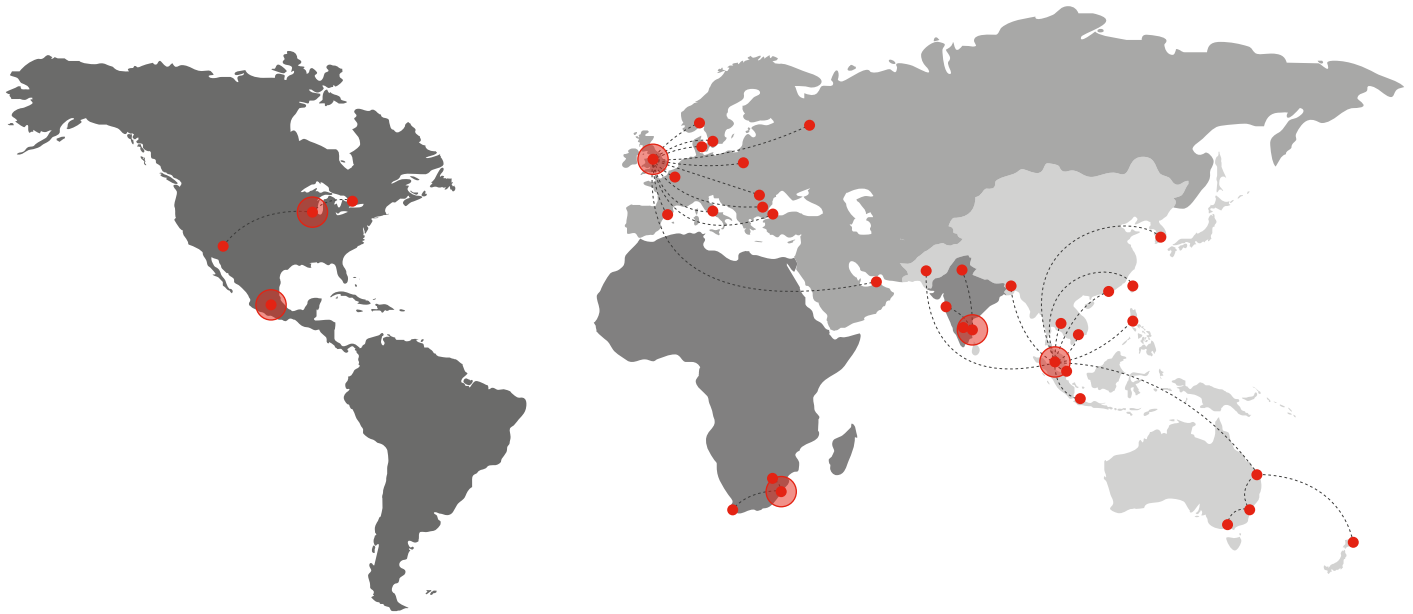
Improves resistance to airborne dirt, smog and other air pollutants



Non-staining, colourless material that doesn't alter the treated surface

Technical Profile

FLASH POINT	
Of concentrate	25°C
After Dilution	None
SOLIDS CONTENT	
Diluted at 1:9	10%
Diluted at 1:4	18%
APPEARANCE	
Pale Yellow (Wet), Clear (Dry)	
WATER PERMEANCE	
ASTM E 514 Diluted at 1:9	Passes
UV RESISTANCE	
Excellent	
ABRASION RESISTANCE	
Excellent	



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