



CONCRETE CURE & SEAL

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

Concrete Cure & Seal

Concrete, although one of the most durable man-made building materials, is inherently porous, with a large number of air pockets. This means the material can break down over time unless a penetrating reactive sealer is applied to the surface, transforming it into a useable and resistant floor finish.

Silicate-based sealers, including lithium silicates, sodium silicates and fluorosilicates, have been used to improve the durability of concrete for decades, reducing porosity and increasing density to result in a surface that resists penetration of liquids, including oil and many chemicals.

The Euclid Chemical Company, represented by Flowcrete UK Ltd in the UK & Ireland, offers a range of penetrating reactive sealers designed to protect and beautify concrete floors in both industrial and commercial environments.

Application Suitability



Warehouses & Distribution



Manufacturing



Transport & Airports



Retail Environments



Car Showrooms



Offices & Residential



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

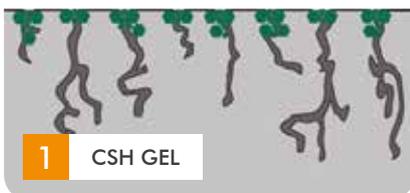




Application Suitability

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

The Science Behind Euco Diamond Hard



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



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



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	
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 chemically reacts to produce dense CSH in the concrete pores, resulting in a more durable, easier to clean surface that never peels, flakes or fades away.

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

UltraGuard



A water-based polymeric protectant that improves the appearance and durability of concrete floors.

UltraGuard contains a stain-resistant additive activated with high-speed burnishing. It is especially effective when the concrete has already been treated with Euco Diamond Hard or Eucosil.

- Provides excellent stain resistance to a wide range of common liquids
- Treated concrete is more dense, durable and easier to maintain
- Protects coloured or stained concrete from UV degradation and staining

Technical Profile

VOC CONTENT	
111 g/L	
SPECIFIC GRAVITY	
1.03	
PH	
9.5–10.5	
SOLIDS / ACTIVE CONTENT	
21–23%	
FREEZE POINT	
0°C	
SPEED OF CURE:	21°C
Light Traffic	1 to 2 hrs
Full Traffic	24 hrs



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

Technical Profile

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

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.

Eucosil



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

Surfhard



Technical Profile

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

A water-based magnesium fluorosilicate solution that chemically reacts to produce a durable floor.

Surfhard is especially effective at strengthening weak, soft, or dusting concrete surfaces with a patented penetrating agent that enables dustproofing and densify at a greater depth.



Prolongs floor life by densifying and dustproofing concrete surfaces



Resistant to acids, alkalis, oils and salts



Can contribute to LEED points

Appearance

Surfhard is a clear liquid that does not change the colour or appearance of concrete. 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.

For a full Technical Profile, contact your local Technical Department.

Technical Profile

CURING EFFICIENCY

At 6m² / litre >75%

SPECIFIC GRAVITY

At 15.6c ≈1.01

FLASH POINT

> 100°C

AVERAGE COVERAGE

5.5–6.6m²/litre

SHELF LIFE (SEALED)

> 12 months

DRYING TIME (AT 20°C)

Light Traffic 1–2 Hours

Full Chemical Cure 6–10 Hours

COMPLIANCE

ASTM C-309, Type1, Class A&B

Kureseal



A low odour polymeric aqueous emulsion that impregnates concrete surfaces to act as a curing aid, sealer, dust-proofer and hardener.

Kureseal can be used on old or new concrete, providing an extended service life over many commonly used coatings.



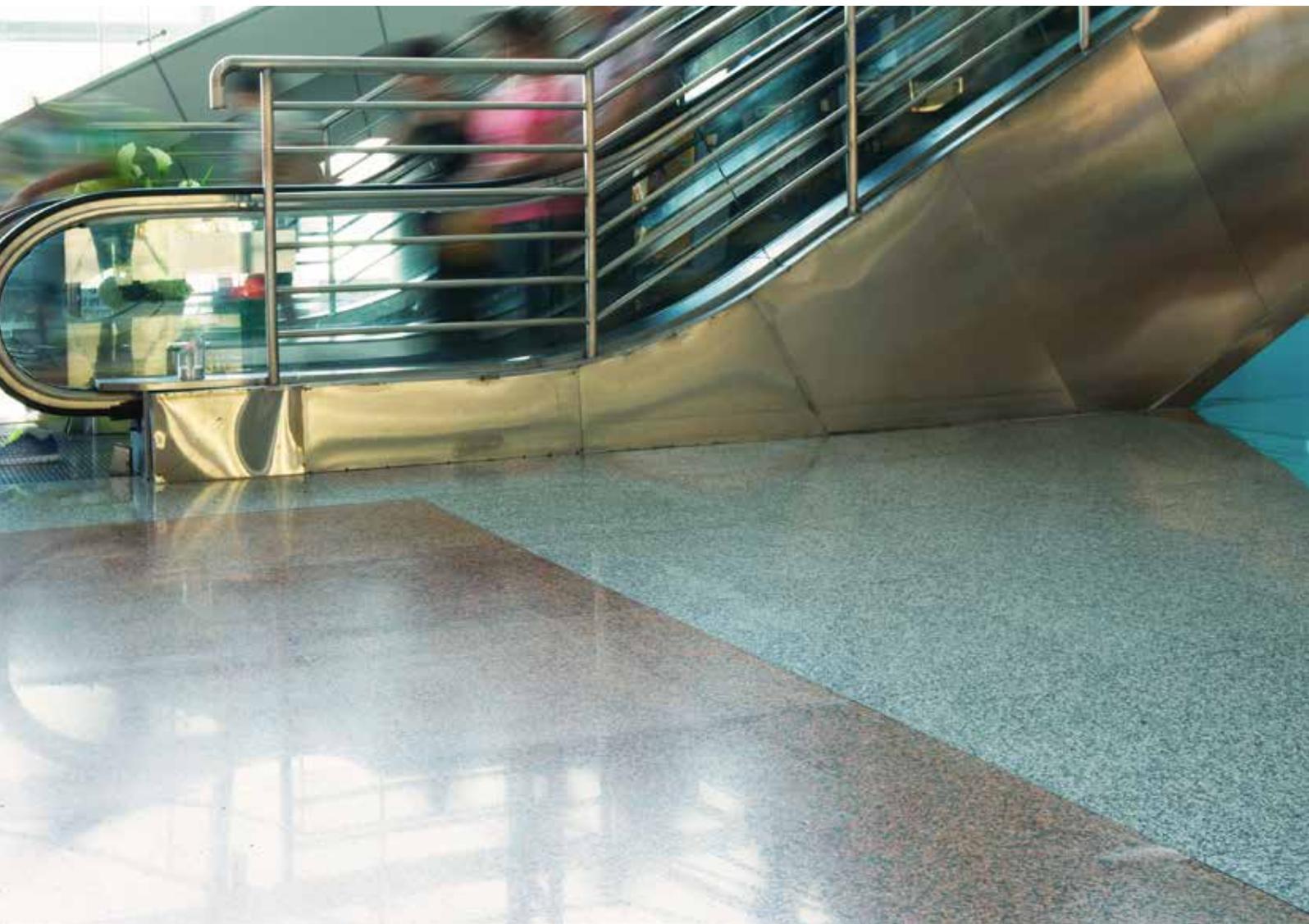
Ready mixed curing membrane & sealer

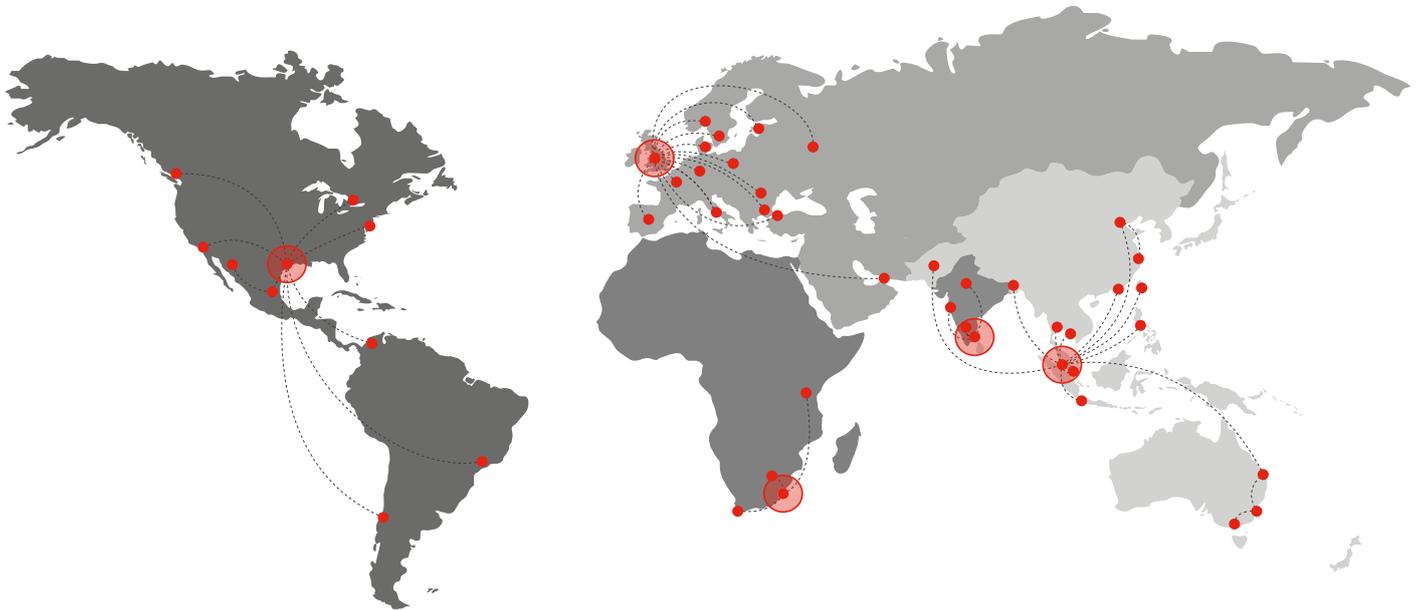


Good abrasion resistance



Re-coatable with minimum preparation





Flowcrete

World leader in seamless resin flooring solutions and other specialist coatings.

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