

# Conseal 50

## Silane surface treatment for concrete

Conseal Pure (AP678) is a 50% active silane sealer formulated to provide premium protection to cementitious construction materials, engineering concrete, masonry surfaces, and cement pavers. It employs high performance impregnators which chemically react with the cementitious material to create a powerfully repellent substrate, protecting against water-borne contaminants, acid rain, organic staining and salt attack.

### Description:

Conseal 50 is a clear, penetrating, breathable, VOC compliant surface treatment for use on concrete. The unique 100% silane is formulated to provide ultimate protection to horizontal surfaces (use Conseal Pure for vertical surfaces). The high performance carrier and wetting agents quickly carry the silane deep into the substrate where the silane chemically bonds with minerals to form a permanent attachment of the water repellent molecule. This deep hydrophobic layer prevents water and water borne contaminants from entering the substrate and causing premature deterioration.

By combining low surface tension with a tailored rate of reaction, Conseal 50 is able to spread through the moisture boundary layer that lines the pore structure of the substrate. This allows for perfectly uniform protection throughout the hydrophobic layer giving the benefit of longer treatment life especially on wearing surfaces.

### Recommended applications:

Conseal 50 is ideally suited to both vertical and horizontal applications. Where there are vertical surfaces involved it is recommended that Conseal Pure is used.

Conseal 50 can be used to protect cast-in-place, precast, GFRC and high-strength concrete, to protect the reinforcing steel and the surface from corrosion due to the effects of water, salts and water borne contaminants.

For use on bridge and road decks where fast drying is required to minimize disruption to traffic.

For treating heavy traffic wearing surfaces, runways or areas that receive high salt attack (piers, wharves, coastal buildings)

### IMPORTANT BENEFITS:

- Recommended for use as a water-stop under coatings or other surface protection treatments.
- Conforms to TL/TP OS-A of ZTV SIB 90 standards set by the German Federal Transportation Ministry and to EN 1504-2
- Can be used according to principals 1, 2, 5 and 6 of EN 1504-9

### Considerations:

Not to be used as a sub-terrain waterproofing. Should not be applied if temperature is above 40 degrees or if rain is expected within 2 hours of application. If rain has preceded the application, the surface should be allowed 24 hours to dry completely.



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### Benefits:

- Premium Protection – Conseal 50 provides unparalleled protection against water borne contaminants, chloride ions, efflorescence and biological growth.
- Long Term Benefits - Conseal 50's long lasting repellency, protects engineered concrete and porous construction materials from: efflorescence, spalling (freeze-thaw damage), corrosion of reinforcing bar, salt ion ingress, weathering, mould and staining.
- Retains Newness – the high performance protection and long life span offered by Conseal 50 is ideal for the preservation and preventative maintenance of: construction concrete such as bridges, marine and port structures, concrete and paved walkways, parking areas, concrete building facades, pool surrounds and patios.
- Natural Look – will not discolour or alter the natural look of recommended substrates.
- UV Stable – Ideally suited for both indoor and outdoor use.
- Vapour permeable – won't trap moisture. Does not hinder the natural passage of water vapour.

### Expected Wear:

Conseal 50 will provide premium protection for up to 15 years and in many applications, several years longer. However application methods, weather conditions, traffic, harsh cleaning methods and substrate type will affect wear. Avoid use of solvents, strong acids and strong alkalis for extended sealer life.

It is recommended that the sealer be re-applied every 8 - 12 years where harsh conditions exist.



### Surface Preparation:

- New installations must be fully cured before application of Conseal 50 (Min 48 hours, however some concrete installations may take up to 28 days to cure. Confirm with the structural engineer).
- Coverage can vary dramatically depending on the degree of porosity, but is normally 5 to 15 m<sup>2</sup> / Lt per coat for open structure, highly porous substrates and 15 to 25 m<sup>2</sup> / Lt per coat for dense, less porous substrates.
- Do not apply in direct sunlight. Temperature must be between 10°C and 28°C.
- Highly absorbent surfaces may require two coats.
- Surface must be cleaned to remove all traces of dirt, dust, efflorescence, mould, salt spray, grease, oil, asphalt, paint or any coating. Speak to your Actichem representative for cleaning and preparation solutions.

### Application:

1. Apply 1 to 2 coats of Conseal 50 by generously saturating the surface using a polish applicator, roller or sprayer to the area. Ensure even coverage. When treating vertical surfaces, start application from the bottom, moving upwards to avoid uneven coverage.
2. The surface must be shiny wet with a liquid film for at least 30 seconds. For very porous substrates more sealer may need to be applied.
3. Allow 5 - 10 minutes for the sealer to absorb into the surface. If excess product remains on horizontal surfaces move the excess product with a squeegee to a new section.
4. If a second coat is to be applied, wait 20 to 30 minutes and repeat the process.
5. Allow 2 to 6 hours before returning area to traffic. Keep dry for 12 hours. Achieves a full cure in 24-48 hours.