TECHNICAL DATA SHEET

komsol® SEAL

Deep penetrating concrete sealer

TDS SEAL 2025-10-1

Product Description

Komsol®SEAL is an inorganic, non-toxic, and permanent impregnation treatment for concrete and other cement-based materials. The product penetrates deeply into capillaries, microcracks, and pores, where a chemical reaction with salts and minerals forms a hard, crystalline calcium silicate hydrate (C-S-H). The result is internal protection that effectively blocks the ingress of water, contaminants, and chlorides—without compromising the material's breathability. Komsol Seal increases abrasion resistance by more than 60%!

Applications

Komsol Seal protects and extends the service life of cement-based structures, both above and below ground, and in indoor and outdoor environments. Common application areas include:

- **Waterproofing** of concrete in environments with constant or recurring moisture exposure, such as basins, tunnels, and foundations. The product is designed to be applied even to damp concrete.
- **Surface reinforcement** of concrete in high-wear environments, such as warehouse floors, parking decks, and surfaces exposed to heavy or continuous water flow. Increases abrasion resistance by more than 60%
- **Chemical resistance** for concrete surfaces in environments such as vehicle wash bays, biogas silos, and flocculation tanks. The treatment also provides base-level protection against chemical and high-pressure cleaning during graffiti removal.
- **Corrosion protection** Maintains the concrete's alkalinity around reinforcement and prevents corrosion in aggressive environments with chlorides, CO_2, or high moisture exposure.
- **Realkalisation of carbonated concrete** Restores pH in carbonated concrete, protects against further carbonation, and strengthens the material's natural resistance to moisture, frost, and chemical attack.
- **Remediation of concrete with odor and mold issues** Treats concrete affected by organic contamination and microbial growth – a common issue in damp basements with high humidity levels.
- **Dust binding** on floors in warehouses, workshops, and industrial settings.
- **Green building** Komsol Seal is "Recommended" by Swedish environmental assessment systems and supports compliance with BREEAM and LEED.

Areas of Application

- Roads, bridges, tunnels
- Pools, water and wastewater systems
- Industrial and warehouse floors
- Foundations and slabs
- Marine environments
- Façades, basements, foundation walls
- Balconies, staircases

Key Properties:

- Vapor-permeable
- Deep-penetrating
- Corrosion protection
- Increases abrasion resistance by >60%
- Resists deterioration
- Non-film-forming
- Long-lasting effect
- Odorless, no VOC
- Non-flammable and safe to apply
- pH-stabilizing concrete
- Re-binding effect

Advantages

- Environmentally friendly – no toxic substances
- Extends the service life of concrete
- Mineral-based – 0% VOC
- Easy to apply
- Vapor-permeable
- Acid-resistant
- Acts as a dust binder
- Tested and proven performance
- Reduces maintenance requirements
- Listed and recommended by Byggvarubedömningen and SundaHus. Evaluated with regard to both environmental impact and human health.

Application Instructions

Preparation

- The surface must be clean, dry, and free from dust, paint, grease, or other contaminants that hinder absorption.
- Visible damage and cracks larger than 0.2 mm must be repaired before application.
- Protect sensitive surfaces such as glass, aluminum, and painted or glossy materials from splashes and spray mist – etching may occur.
- During application, the substrate temperature must be at least +5 °C. If the temperature exceeds +35 °C, contact your Komsol representative for advice.
- The ambient temperature during the 24 hours following application must be ≥ +5 °C.

Application Guidelines - Vertical surfaces:

- Apply using a low-pressure sprayer.
- Apply wet-on-wet at least twice with 5–15 minutes between applications until full saturation is achieved.
- Avoid run-off and ensure uniform coverage on all areas.

Application Guidelines - Horizontal surfaces:

- Pour the product onto the surface and keep it in motion using a brush or polish mop.
- Avoid the formation of dry patches – the treatment period is typically 30–40 minutes.
- Discontinue application when the product begins to gel – this may occur more quickly on new concrete.
- Remove excess material with water or a rubber squeegee to prevent gloss or white stains and to ensure good adhesion for any subsequent surface treatments.

Drying and Curing Times

Foot traffic: after approx. 2 hours
Water resistance: after 6 hours
Heavy traffic: after 24 hours
Full chemical resistance: after 36 days

Coverage

Approx. 0.1–0.3 liters/m², depending on substrate absorbency and depth of penetration. Perform a test application if needed to determine actual coverage.

Cleaning

Tools:	clean with water, soap, or a mild acid solution
Skin contact:	wash with water and soap

Maintenance

Avoid cleaning agents with pH < 7.
For treated floors, concrete soap is recommended.
Other care instructions may apply for high-gloss polished surfaces.

Health and Safety

Wear protective gloves and safety goggles.
Avoid inhalation of spray mist – use respiratory protection during spray application.
Ensure adequate ventilation.
No known health or fire hazards.
Always read the Safety Data Sheet (SDS) before use.

Accessed and tested in accordance with:

Green Building Material Assessment **Scandinavian Byggvarubedömningen and SundaHus**.

EN ISO 12873-2: 2021:
For use in direct contact with potable water up to 70° C. (Influence of materials on water intended for human consumption, Influence of migration. Part 2)

CE MARKING EN 1504-2:2004, SYSTEM 2+:
Products and systems for the protection and repair of concrete structures - part 2: Surface protection products for concrete, table: ZA.1b / ZA.1c

Extract from declaration of performance:

Depth of penetration	≥ 10 mm
Abrasion resistance	> 30% (63%)
Impact resistance	Class I: ≥4 Nm
Reaction to fire	Euro class 1 (fireproof)
Dangerous substances comply with	5.4 / No requirements

PRODUCT DATA:

Appearance	Slightly cloudy liquid
Active ingredients	Sodium and potassium silicate
pH	11.4
VOC content	0 g/l
Density	1.14 g/cm³
Fire	Non-flammable
Flash point	Missing
Freezing point	0° C
Packaging	20 l / 1000 l
Storage/shelf-life	Cool, dark / >24 months.

Documentation

komsol®

Produced by:
Komsol Sweden
www.komsol.com
info@komsol.se

Vertrieb:
Komsol Deutschland
www.komsol.de
info@komsol.de

Distribuido por:
Komsol Hispañia
www.komsol.es
info@komsol.es

Distributed by:
Komsol International
www.komsol.eu
info@komsol.eu