



Effective preservation of
asphalt surface courses

POSSEHL AsKo

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It's a bit like a garden shed, your favourite deckchair or the children's climbing frame: if you treat the wood regularly with a high-quality wood stain, you protect it from the elements, moisture and UV radiation.

The situation is similar with roads – specifically asphalt roads: if the asphalt surface course is treated in good time, it remains stable and durable for longer. This is precisely where we come in with POSSEHL AsKo: a preservative for the preventive preservation of asphalt surface courses, which slows down the ageing process of the bitumen and demonstrably extends the service life of the road.

The problem lies in the bitumen

Asphalt consists mainly of chippings, sand and limestone powder; around 6 per cent is accounted for by the binding agent bitumen. The latter is subject to a natural ageing process, which is accelerated by external factors. Rain, heat, freeze-thaw cycles and increasing traffic loads lead to visible damage after just a few years. The result is aggregate loss, cracks in the asphalt and potholes. To prevent these issues at an early stage and specifically extend the service life of the bitumen, we recommend POSSEHL AsKo.

How preservation works

POSSEHL AsKo is applied before the first problems and defects even appear. It is a preventive measure based on a chemical reaction.

Two key factors are crucial to the effectiveness of a preservation technology: the ingredients of the preservative and the precisely formulated composition.

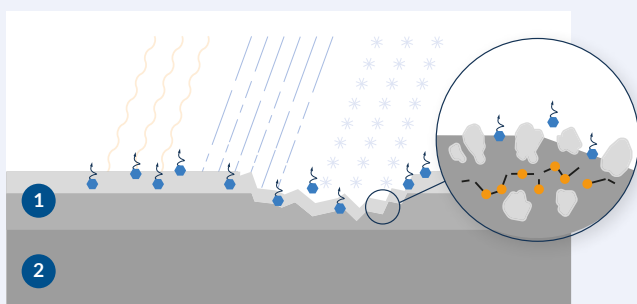
The main component of POSSEHL AsKo is GPM (Gilsonite Preservative Materials), which is based on Gilsonite, a virtually pure hydrocarbon of natural origin. Through years of laboratory testing, the formulation was developed so that the AsKo material achieves a density of less than 1. This property enables the material to penetrate up to 10 millimetres deep into the asphalt surface course; with open-pored asphalt, penetration depths of up to 40 millimetres are even possible.

After application, GPM reacts with the bitumen:

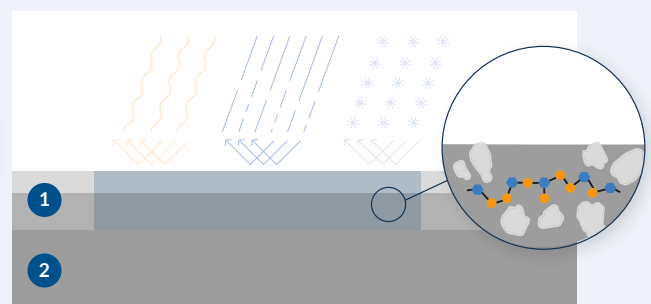
- The agent forms a protective membrane around the asphaltenes and maltenes contained in the bitumen. In this way, AsKo delays the chemical and physical ageing process in the asphalt.
- AsKo fills existing micro-cracks and small voids. Furthermore, the agent prevents water and de-icing salt solutions from penetrating the road surface. This demonstrably reduces wear and the degradation of the asphalt caused by oxidation, heat and UV radiation.
- When applied in good time, open-pored asphalt pavements retain their original properties thanks to AsKo.

Immediately after the preservative has been sprayed on, the surface is treated with aluminium silicate grit. This step provides mechanical protection for the treated surface and ensures that the road regains the required skid resistance after around six to eight weeks.

Oxidised and weathered



With POSSEHL AsKo



Back on the road in no time

POSSEHL AsKo is applied using a computer-controlled specialised ramp sprayer calibrated to European standards. We ensure precise and even application to guarantee full coverage of the surface. Nevertheless, you need not expect long roadworks or traffic delays. On the contrary, POSSEHL AsKo impresses with its rapid application and short drying time. After just two hours, the road can be reopened to traffic, resulting in minimal disruption.

Save resources, costs and stress thanks to preservation

Preservation with POSSEHL AsKo opens up a wide range of savings opportunities. By protecting the bitumen from the weather and stress at an early stage, the road remains in good condition for longer, which has a positive long-term effect on the road's maintenance and repair costs. Costly resurfacing works can be significantly delayed.

As AsKo is applied using a cold-laying process, energy consumption is reduced. Unlike when resurfacing a section of road, no waste material is produced. As the process can be repeated every five to eight years, the road is continuously protected and the existing structure is preserved for longer.

Key benefits at a glance:

- + Increased resistance of the existing bitumen to the effects of oxidation, temperature and UV exposure
- + Cost-effective extension of the expected (remaining) service life
- + Noise-reducing properties of open-pored asphalt pavements are retained
- + Mobile construction site with minimal disruption to traffic. The road is reopened to traffic after approximately two hours.
- + Preservative containing Gilsonite of purely natural origin (fossilised crude oil).
- + Additional energy savings and zero emissions thanks to cold application.
- + Reduced icing of exposed overpass sections in winter.
- + Can be repeated multiple times (approx. every 5–8 years).
- + Process proven for over 40 years.

PRACTICAL EXAMPLE

Spree-Neiße District

Since 2018, Spree-Neiße District has been having its district road network treated preventatively with POSSEHL AsKo. Even after several winter seasons, the treated sections show no signs of structural damage or potholes. This example demonstrates how timely treatment can safeguard the infrastructure in the long term.

Project overview

Start of preservation:	2018
Scope:	almost comprehensive treatment of the district road network
Observation period:	several winter seasons
Damage profile:	no significant frost or pothole damage



POSSEHL Spezialbau GmbH & Co. KG has been active since 1956 in the field of value-preserving and performance-enhancing maintenance of traffic areas, industrial and commercial sites, as well as airfield surfaces.

The company's headquarters are located in Spremlingen, Rheinhessen. With additional regional offices and local branches, we are represented throughout Germany and maintain close proximity to our clients. Four additional subsidiaries across Europe expand our range of services and enable the execution of cross-border projects within the EU.

One of our core principles is to provide all construction services, including preparatory and ancillary work, from a single source for the benefit of our clients. One of our particular strengths lies in the seamless collaboration between our specialist departments. We are a team of experienced experts in surface construction and maintenance who apply their knowledge and expertise in a targeted manner to deliver bespoke solutions for our clients.

Specialist company according to WHG

POSSEHL Spezialbau GmbH & Co. KG
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