EP-GRIP Coating
Establish traffic safety economical, sustainable and fast
Insufficient grip is often the cause for the fact that a road section develops into an accident concentration especially if the road is wet. However, the road construction on many segments of this road are otherwise completely intact. In such cases, a grip in accordance with the technical set of rules ZTV BEB-StB or ZTV Asphalt-StB can be reestablished quickly and without complications by using EP-GRIP coatings.

The EP-GRIP coating consists of a binding agent on the basis of reaction resins into which a mixture of fine and coarse stone granularity resistant to polishing is spread.

This surface treatment has a dual effect – through its fine and its coarse roughness. Especially selected stone granularities with a very high micro-roughness increase the friction between tire and road and therefore provide the required grip. The micro-roughness is a result of the grain size of the stone granularity. It is responsible for the outstanding drainage effect of the EP-GRIP coating and provides high grip to the coatings, even if it is raining or wet.

Maintenance free for years – no costs for years

The maintenance-free coating protects the roads permanently against traffic stresses, weather and environmental impacts - and that for many years. During this time, the EP-GRIP maintains its performance characteristics.

A glance at the costs shows that this is also in the long run the most economical method for the permanent guarantee of the traffic safety. Maintenance, service or other subsequent costs are not generated.
**Less noise, more brightness**

**Loud roads become quieter ...**

EP-GRIP coatings provide a valuable contribution for the active noise protection. The optimal texture and roughness depth result in a significant reduction of the tire-road noise, which is developed when tires unroll on the road. Measurements with the CPX method (noise measurement trailer) provide proof for a reduction of the sound pressure level of up to 75%.

The reduction of the noise level at a measuring speed of 100 km/h is up to 6 dB(A). This is equivalent to a perceived reduction of the noise emission by also 75%. In this connection, proof for a $D_{10}$ value of -5 dB(A) was provided for EP-GRIP.

This economic process is especially often used on bridges and valley or trough locations because other noise protection measures are often not possible for constructional reasons.

**Dark tunnels become brighter ...**

EP-GRIP coatings glare significantly less in case of wet roads than conventional coatings, because the light mirroring or reflection in the water film is reduced by the grain peaks, which break through the water film.

An additional brightening effect is often achieved when using bright stone granularities. It causes a significant increase of the brightness in tunnels and trough locations in connection with significant energy savings for the lightning.

Tests have repeatedly provided proof for the resistance of the EP-GRIP coating against heat, fuels and de-icing salt as well as frost exposure.

**Environmentally friendly protects actively against noise**

**Solvent free**

**Raw material saving**

**EP-GRIP coatings** are environmentally friendly and sustainable in many aspects:

- This process already saves energy during the installation because the resin will be applied in a cold condition. CO$_2$ emissions for the heating of machines or mixing materials are not required at all.

- The long usage duration prevents energy expenditures for later maintenance and service actions and therefore contributes to the sustainability of the process.

- The fast installation reduces traffic obstructions and unnecessary exhaust gas emissions through traffic jams to a minimum.

**EP-GRIP coatings** also reduce the costs:

- The coated surfaces require less de-icing salt in winter because a significant contact between the tires and the fine rough-structured surface is provided for a longer time.

- The costs for the construction of a noise protection wall would be – for a comparable noise reduction – at least 5 - 10 times as high as the application of an EP-GRIP coating.
Suitable for concrete and asphalt on ...

**EP-GRIP for concrete**

The installation on concrete roads is provided without interruptions in the area of the gaps. In addition, the EP-GRIP coating acts as a sealing of worn, older concrete surfaces. EP-GRIP can contribute to a significant extension of the usage duration of concrete surfaces.

For many years, airport operating companies prefer POSSEHL ANTISKID® coating, a variant of EP-GRIP on air traffic surfaces. The reaction resin provides three major application advantages on de-icing surfaces:

Due to the drain effect, the de-icing agent will be removed quickly from the surface. The outstanding grip provides a high safety level and the sealing effect protects the concrete permanently.

**EP-GRIP for asphalt**

A special binding agent, which has a flexibility adapted to the asphalt, was developed for the use on asphalt. This binding agent layer can compensate temperature variations and the resulting elongations of the underlying road without being damaged and without losing stability. Therefore, this coating system demonstrably withstands the stresses of the traffic for many years.

The high grip is maintained for a long time because only stone granularities are used that are resistant to polishing and that "re-sharpen themselves".

The spread material can be used with different granularities.

In accordance with ZTV BEB-StB as well as TL BEB-StB, TP BEB-StB or leaflet BEB, the granulations are 1/2 mm, 1/3 mm, 2/3 mm or 3/4 mm. However, other granularities can be provided on request.

The selection of the required stone granularity depends on the required texture and the future tasks of the surfaces to be treated.

We would be pleased to provide consultation to decide which granulations best fulfill the specific application requirements.
A strong team

**EP-GRIP Coatings** are used successfully in practical applications since 1986. In the meantime, a few million square meters of traffic surfaces have been coated using this process.

Daily productions of up to 15,000 m² are possible. An experienced team does not only ensure the flawless function of the devices and the correct composition of the coating system but also the thorough and expert execution of the work.

A proven system

The coating with **EP-GRIP** can be performed during the day and at night. Prerequisite: The surfaces to be coated must be qualified, clean and dry.

Ramp ups for the height equalizations between the **EP-GRIP coating** and the adjacent road surfaces are not required. In addition, existing permanent markings can be maintained.

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Short construction time, Little traffic impairment

The EP-GRIP coating is produced as a mobile day and night construction site, normally with a single lane closing.

The flexible reaction resin binding agent will be applied onto the clean substructure with a mobile two component mixing and application machine and will be spread with stone granularities.

The stone granularities will initially be spread in excess and afterwards compacted. The excess spread material will be swept off and vacuumed in one work step after only 3 to 4 hours after the application of the reaction resin. Afterwards, the road can again be used for traffic.

A computer controlled mixer for the binding agent assumes the metering of the resin and hardener components. The binding agent will be evenly distributed on the road through a pour bar. The driving speed of the application device depends on the work width and the required volume of binding agent. The continuous control of the binding agent flow guarantees the required layer thickness.

In addition, the design type of the pour bar provides a drip-free, even and spray vapor free application. Additional application benefit of the POSSEHL technology: The unique Vario module permits a change of the width during the application.

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Almost no preparation time
Extremely short blockage times
Only 3 - 4 hours of hardening time
POSSEHL SPEZIALBAU GMBH offers construction services using cds® construction chemical products for the value maintaining and usage securing repair of traffic, industrial and operating surfaces as well as air-traffic surfaces.

All services, from the repair and permanent restoration up to the complete rehabilitation and coating of new construction surfaces including all substrate pre-conditionings are performed by in-house construction departments in accordance with the requirements and the schedule.

The processed, high quality cds® construction chemical products are developed and produced in the laboratories and production site of our subsidiary cds Polymere GmbH & Co. KG in Sprendlingen, Germany.

EP-GRIP is ...  
... quickly installed  
The coating is applied quickly and it impairs the traffic only a little.  
... bright  
EP-GRIP surfaces with bright stone granularity significantly improve the lighting conditions in tunnels and trough locations and achieve significant energy savings.  
... economical  
The process is maintenance free and therefore economical in the long term.  
... environmentally friendly  
The reestablishment of the grip only requires a few new materials and raw materials while consuming very little energy.

EP-GRIP ensures ...  
... Traffic safety  
Accident concentrations will be defused due to grip and brightness.  
... Grip  
EP-GRIP permanently provides a very high grip and reduces the aquaplaning hazard on road surfaces made of asphalt and concrete.  
... Noise reduction  
EP-GRIP significantly reduces the tire-road noise and other vehicle noise.

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