

Where to use StabilRoad®



StabilRoad® process consists of 6 steps



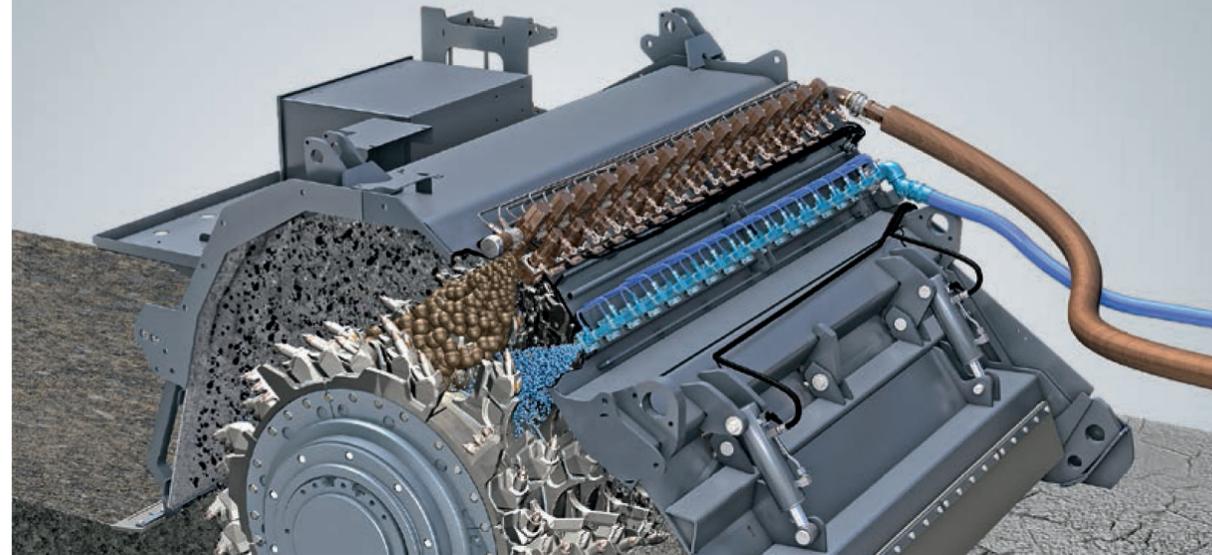
1. We perform soil laboratory tests, we explain the precise composition of the soil, the amount of cement needed and the amount of StabilRoad® additive
2. On existing soil, cement and StabilRoad® additive are applied
3. The soil stabilizer mixes the entire soil with cement and StabilRoad® and adds the required amount of water during mixing
4. The cross-linked soil is compressed by the rolling method and the top layer is levelled and smoothed with a grader
5. Final compression is completed
6. Depending on the weather conditions the stabilized surface is sprayed with water, to ensure the required humidity in the hardening process

During the operation of stabilized soil, quality control is performed and the results of laboratory measurements are presented

NB! The precision of the German manufacturer's technology is closely monitored. All work is subject to technical supervision. Stabilizing the soil with StabilRoad® technology helps to increase the strength of the existing soil, make it moisture-proof and frost-resistant. It is suitable for stabilizing all types of soils (including clay, old asphalt, etc.). Depending on the soil screen curve, it may be necessary to add fines in some cases.

StabilRoad® advantages

- High quality control of the product by German specialists
- The product is made of natural materials
- Accelerates the cement hydration process
- Improves stabilized soil cover properties
- Homogeneous composition of the product, which allows to control the chemical reaction
- Extremely high compressive strength and coherence of compounds
- Eliminates the development of expansion fractures



Our technology, which has justified itself for many decades, has been used in the Netherlands, Germany, Switzerland, Sweden, Poland, Estonia, Russia, India, Malaysia, Brazil and Canada.

StabilRoad®

+3725048088 | stabilroad@stabilroad.ee
www.stabilroad.ee | www.stabil-road.com | www.stabil-road.ru



Stable and durable



Proven technology
 Rapid process
 Quality control

StabilRoad® provides a stable substrate

Do you plan to build a new road, improve existing roads, build a car park or a warehouse?



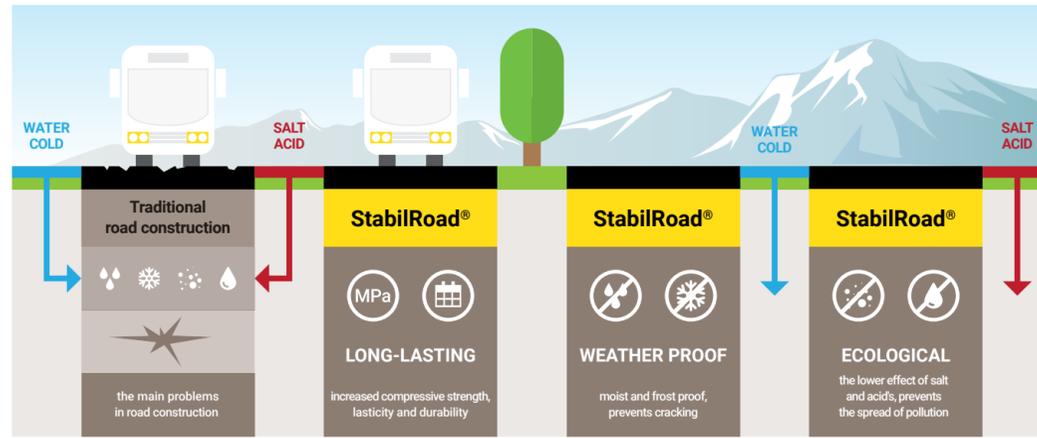
- Do you want to do it again and again, year by year, filling and filling and levelling surfaces?
- Do you want the road to be solid - not to break, crack or freeze?
- Are you ready to stabilize the soil so that it lasts for decades?
- If so, StabilRoad® is your right choice!

Today StabilRoad® is one of the most advanced and technologically most innovative materials and technologies in the world. StabilRoad® technology has been developed in Germany and has been used for nearly 20 years in most of the world's climate zones. StabilRoad® technology is used in Europe, Scandinavia, Russia, India, the USA and many other countries. The most important feature of using the StabilRoad® additive and special technology is that we can significantly accelerate the construction process by reducing the cost of work, at the same time achieving a stable, durable and long-lasting surface. Some hours after the necessary work has been done, the treated surface is ready to be used. Depending on the field of application, a protective layer of coating or asphaltting may be necessary.

StabilRoad® technology is scientifically proven

StabilRoad® is a cement additive which chemical effect is to increase the cement hydration processes. Cement hydration is a chemical process in which cement particles by reacting with water form new related compounds, which make up a concrete skeleton. As a result of crystallization, water-insoluble compounds are formed, making the treated layer non-water-absorbing. By increasing the cement hydration the amount of cracks caused by volume reduction decrease. At the same time the elasticity, compression and tensile strength of the stabilized layer increases and becomes cold-and moisture-resistant. In its properties the stabilized layer can be compared with concrete. The stabilized material has a compressive strength of 3-15N / mm². It also has a very high load capacity, which is evenly distributed on a very large surface. This is sufficient for all objects described in this brochure.

StabilRoad® technology allows you to achieve a much higher quality and longer lasting stabilized base than achieved by classic stabilization. The technology has been developed by taking into account a large variety of climatic conditions, soils, norms and requirements, and therefore almost all soil types can be stabilized. StabilRoad® technology can be applied to all road categories. The StabilRoad® product can also be used as a modifying additive in construction concrete and cement mixtures to improve their protective properties, accelerate the process of hardening, increase durability and compression strength, while maintaining high elasticity.



StabilRoad® meets all the necessary requirements



Parallel studies on the chemical composition and mechanical properties of StabilRoad® technology have been carried out in Estonia and that technology meets all the international standards and safety requirements. In co-operation with Estonian Road Administration and the company Skepast & Puhkim OÜ, the pilot project for scientific research "Testing of materials for stabilizing gravel" was carried out in 2015-2016. The use of the StabilRoad® additive in Estonian conditions and the cost-effectiveness of technology was observed in the Master's Thesis "Innovative Technologies for Stabilizing Soils in Road Construction" in 2016. It has been proven that StabilRoad® technology helps to achieve a concrete-solid, elastic, crackle-free, frost-proof and long lasting surface. StabilRoad® technology has become an innovative alternative to our conservative, old-fashion road building technologies.

StabilRoad® provides an ecological advantage

StabilRoad® technology gives a very high ecological advantage over traditional road construction. As a result less energy is consumed, the amount of harmful exhaust gases to the surrounding environment is reduced due to the removal and reloading of filler surfaces. The negative public response resulting from the high-volume transport of huge inert materials will decrease and the use of non-renewable natural resources decreases too. While using StabilRoad® technology, it is very important to remember that all contaminated surfaces (including harmful substances, petroleum products) are dis-sectioned from the rest of the environment during stabilization. Therefore no contamination from the soil is released into the nature!

StabilRoad® saves you time and reduces costs



- Recycling and re-use of local soils and materials provides multiple economy
- Expenses related to excavation, exportation and utilization of soil are excluded or minimized
- There is little or no significant need for the purchase and transport of inert aggregates
- The thickness of superficial stabilizing layers is significantly reduced compared to classical stabilization
- The frost resistance of the superficial layers is significantly increased
- Significantly accelerates the construction process
- The stabilized surface is ready for traffic within in 4-6 hours after completion of the work
- Financial economy compared to traditional road construction up to 30% and time saving up to 40%.

Traditional road construction

StabilRoad®

TRANSPORT 	112 rides		7 rides
NEW SOIL 	2560 tons		160 tons
SOIL TRANSPORTATION 	1300 tons		0 tons
FUEL CONSUMPTION 	7000 liters		1000 liters
DURATION 	21 days		3 days
CO ₂ POLLUTION 	3225 CO ₂ /km		645 CO ₂ /km
LABOR FORCE AMOUNT 	mechanized column		mechanized brigade

