INNOVATIVE TECHNOLOGY FOR SOIL STABILIZATION

ROSOBORONEXPORT
Russian Defence Export

STRONG SUPPORT

Innovative technology for soil stabilization for the rehabilitation and construction of civil and special transport infrastructure facilities based on two components:

- **PGSZ – 1 – Soil Stabilizer Liquid**
- **PGSP – 3 – Soil Stabilizer Powder**

The uniqueness of this method lies in the fact that this solution is universal, which makes it possible to stabilize any types of soils available on the object and free from organic inclusions by activating their own natural properties.

As a result of the stabilization process, an absolutely hydrophobic bearing layer is created with the specified strength characteristics, which remain unchanged during the rainy seasons and are not affected by close groundwater.Stabilized layer strength during operation increases and the higher the load, the stronger it becomes.

The above-mentioned soil stabilization system is an effective solution for preparing stabilizer-enriched crushed residues of destroyed buildings and structures or mineral production wastes for use as
sub-base and base material at transport infrastructure facilities.

2-COMPONENT SOIL STABILIZER ADVANTAGES:

Usability for all types of soils

One-layer efficiency

Construction of a road with the use of soil stabilizer requires just one base course layer of 20 to 40 cm.

Exponential efficiency growth

All in all, the higher bearing capacity is required, the more effective the use of soil stabilizer becomes in terms of both time and costs.

Longevity, durability and reusability

The stabilized soil layer can be used for traffic or laying overlying layers of road pavement immediately after the completion of stabilization work. In fact, the soil to which these chemicals have been added can be stored for as long as ever and can acquire strength properties only when moistened and subsequently compacted.

Time-saving & cost-effective repairability

The base course of an old road or any other surface built with soil stabilizer can well be reused when repairing is needed or part of a road needs to be temporally removed.

Ultimate environment protection

A soil, to which the soil stabilizer have been added under this technology, remains totally environment friendly.

2-COMPONENT SOIL STABILIZER APPLICATION:

- Construction of automobile roads
- Rehabilitation of automobile roads
- Construction of service and auxiliary roads
- Construction of sub-base and base of railways
- Rehabilitation of sub-base and base of railways
- Construction and rehabilitation of parking lots
- Construction of airfields
- Rehabilitation of airfields
- Construction of container terminals
- Rehabilitation of container terminals
- Construction of sub-base and base for heavy equipment at construction sites
- Construction of artificial lakes and ponds

CONSTRUCTION SITES WITH APPLICATION OF THIS TECHNOLOGY

Successful rehabilitation of road section with the high intensity of heavy vehicles and the presence of close groundwater in an industrial zone in the suburbs of Doha (Qatar)

Construction of container terminal, Moscow region

Construction of the road in Irkutsk region.

RESULTS ACHIEVED IN PRACTICAL WAYS

- Reduction of road building time and costs
- Extension of road life without capital repairing
- Use of local clayish and sandy soils for road construction
- Fixing of necessary mixed soil quality on preliminary laboratory level and keeping the fixed soil quality in-situ during the works
- Use of fin and silt soils for construction works
- Possible pre-mixing at quarries
- Reduction of humidity and water absorbing in stabilized soil layer practically to zero point
- Increase of road CBR capacity
- Use of road just after heavy compactors finish work

http://roe.ru/eng/catalog/land-forces/engineer-equipment/Innovative-soil-stabilization-system/

ROSOBORONEXPORT
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27, Stromynka St., Moscow,
107076, Russian Federation

Tel: +7 (495) 534 61 83
e-mail: roe@roe.ru
roe.ru