

## ABOUT THE COMPANY





STEKLONIT JSC is the leading Russian manufacturer of geosynthetic materials.

#### The company comprises two production sites:

- The factory in Ufa has been operating since 1961
  - The plant territory is 8.2 hectares including open warehouses. Manufacturing workshops occupy an area of 2.7 hectares
  - Staff of the plant consists of more than 500 highly-skilled workers, more than 100 technical and engineering employees, mid-level managers and senior managers
- factory in the city of Tver, has been operating since 1965
  - The plant territory is 27 hectares including warehouses
  - Staff consists of more than 200 people

ISO-9001 quality management system is implemented at the both factories. The goods are tested by in-house certified laboratories.





STEKLONIT: HIGH EXPERTISE LEVEL BASED ON A HALF-CENTURY EXPIERENCE!

## THE COMPANY TODAY



#### **ANNUAL CAPACITIES**

# >8 mln m

More than **8 000 000** square meters of anti-errosion geomats

#### **ANNUAL CAPACITIES**

# >40 mln m

More than **40 000 000** square meters of geogrids





## **GEOGRAPHY OF SALES**

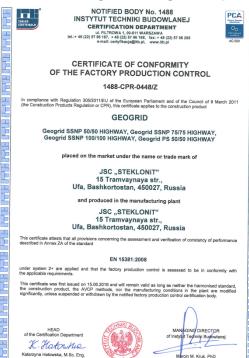




### **CERTIFICATES**



#### Geogrid Highway



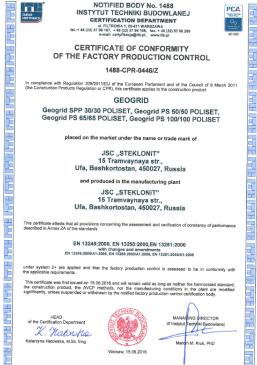
## Geogrid Poliset

#### Geomat (extruded) PCA INSTYTUT TECHNIKI BUDOWLANEJ CERTIFICATION DEPARTMENT CERTIFICATE OF CONFORMITY OF THE FACTORY PRODUCTION CONTROL 1488-CPR-0447/Z In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction product Geomat MTA 15-150 (300) EXTRAMAT, Geomat MTA 15-250 (300) EXTRAMAT, Geomat MTA 15-350 (300) EXTRAMAT, Geomat MTA 15-450 (300) EXTRAMAT, Geomat MTA 15-550 (300) EXTRAMAT, Geomat MTA 15-630 (300) EXTRAMAT, Geomat MTAD 1-15 (300) EXTRAMAT, Geomat MTAD 2-15 (300) EXTRAMAT, Geomat MTS 15-550 (300) EXTRAMAT placed on the market under the name or trade mark of 15 Tramvaynaya str. Ufa, Bashkortostan, 450027, **Russian Federation** and produced in the manufacturing plant JSC STEKLONIT" 15 Tramvaynaya str. Life Bashkortostan 450027 EN 13249:2000, EN 13250:2000, EN 13251:2000, EN 13252:2000, EN 13253:2000, EN 13254:2000, EN 13255:2000 with changes and amondments EN 13249:2000/A1:2005, EN 13250:2000/A1:2005, EN 13251:2000/A1:2005, EN 13252:2000/A1:2005, EN 13253:2000/A1:2005, EN 13254:2000/A1:2005, EN 13254:2000/AC:2003, EN 13255:2000/A1:2005, EN 13255:2000/AC:2003 under system 2+ are applied and that the factory production control is assessed to be in conformity with the applicable requirements. This certificate was first issued on 16.08.2016 (updated on 25.10.2017) and will remain valid as long as neither the harmonised standard, the construction product, the AVCP methods, nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified factory production control certification body.

Warsaw, 25, 10, 2017

of Instytut Techniki Budowlanej Mul

Anna Panek, M.Sc. Eng



№ 1488-CPR-0448/Z

№ 1488-CPR-0446/Z

Geomata GP 20/10 EXTRAMAT, GP 20/20 EXTRAMAT, GP 30/15 EXTRAMAT, GP 30/30 EXTRAMAT, GP 60/30 EXTRAMAT, GP 60/60 EXTRAMAT, GP 90/45 EXTRAMAT, GP 90/90 EXTRAMAT. GGP 20/10 EXTRAMAT, GGP 20/20 EXTRAMAT, GGP 30/15 EXTRAMAT, GGP 30/30 EXTRAMAT, GGP 40/20 EXTRAMAT, GGP 40/40 EXTRAMAT, GGP 50/50 EXTRAMAT, GGP 50 placed on the market under the name or trade mark of JSC ..STEKLONIT" 15 Tramvaynaya str. Ufa, Bashkortostan, 450027. Russian Federation and produced in the manufacturing plant JSC "STEKLONIT"

Geomat (warp-knitting)

INSTYTUT TECHNIKI BUDOWLANEJ

CERTIFICATION DEPARTMENT

ul. FILTROWA 1. 00-611 WARSZAWA tel.:+ 48 (22) 57 96 167, +48 (22) 57 96 168, fax: +48 (22) 57 96 295

CERTIFICATE OF CONFORMITY

OF THE FACTORY PRODUCTION CONTROL

In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction product

15 Tramvaynaya str. Ufa, Bashkortostan, 450027, Russian Federation

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"EXTRAMAT"

**ANTI-EROSION** 

**GEOMATS** 

## SCOPE OF USE. DEFINITION







Three-dimensional geomats (3D mats) are used to create persistent vegetative cover against water erosion or wind erosion of earthwork structures:

- slopes, banked earth, water courses, drain ditches
- bridge abutments
- landslide-prone slopes of ravines
- beds of occasionally flowing streams

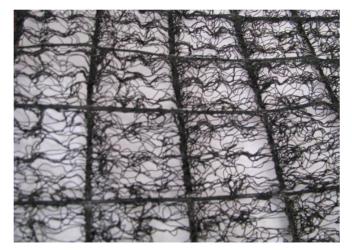
Geomats are produced of polypropylene by extrusion being simultaneously thermally bonded with a layer of reinforcing geosynthetic material: geogrid, non-woven fabric or without any backing (MTA, MTS, MTAD Extramat).

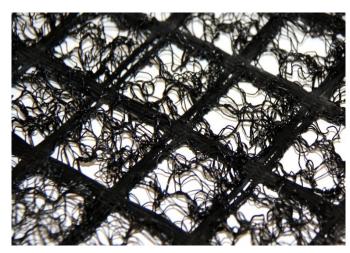
Geomats can be produced by warp-knitting method with its warp made of glass or polyester fiber and its weft made of glass and/or polyester fiber with polymer coating (GP, GCP Extramat).

## **ANTI-EROSION GEOMATS**



#### **MTA EXTRAMAT**





Polypropylene geomat with a glass/polyester impregnated geogrid backing, strength up to 100 kN/m

#### **GP, GCP EXTRAMAT**



Warp-knitted geomat, strength up to 90 kN/m

#### MTS EXTRAMAT



Polypropylene geomat without a backing

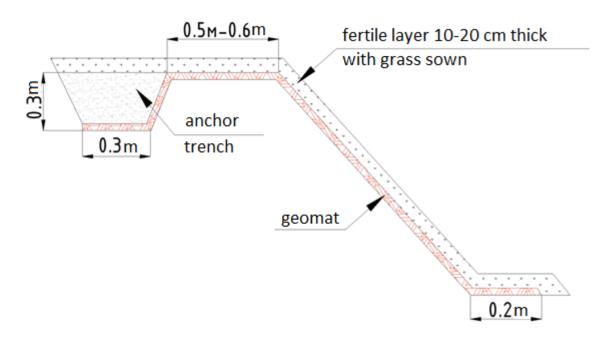
#### MTAD EXTRAMAT



Polypropylene geomat with nonwoven fabric

## **MOUNTING TECHNIQUE**



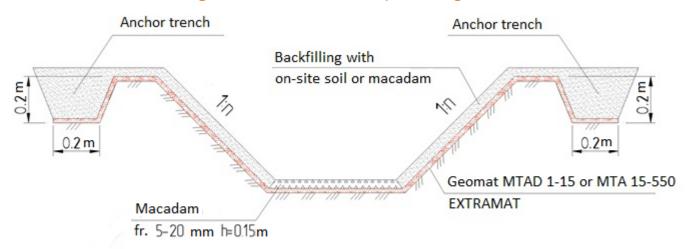


- 1. Laying out a face of slope
- 2. Arranging an anchor trench along the crest of earthwork
- 3. Delivering and spreading rolls
- 4. Casting seeds (1/3 of total amount)
- 5. Laying (unwinding) rolls in parallel, 0.15...0.2 m overlapped
- 6. Covering with vegetable soil as thick as per design
- 7. Casting the rest 2/3 of the seeds

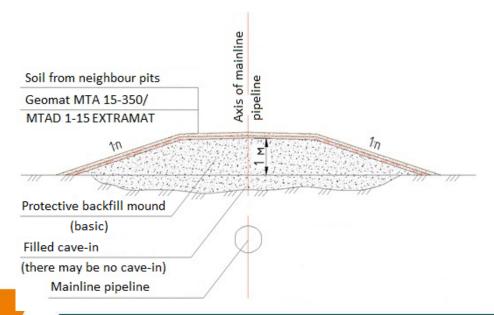
## **EXAMPLES OF CONSTRUCTIVE SOLUTIONS**



#### Reinforcing a bed of occasionally flowing stream



#### Reinforcing a protective backfill mound above pipeline



## **ADVANTAGES**



#### 1. High mounting speed

Rolls of geomat are unwound downward bladed slope surface, at that being strained and smoothed out. In most cases no additional anchoring is needed.

#### 2. Cost

is lower than that of high-volume geogrids, height starting from 100 mm, which are regularly used in combination with non-wovens; the cost is lower than that of multilayer bio-mats with grass seeds.

#### 3. Easy conditions of shipment and storage

Polymer geomat is highly resistant to chemically aggressive media, humidity and temperature extremes

#### 4. Durability

Geomat reinforces surfacial area of a slope along with grass roots throughout the whole service life of a road

#### 5. Great variety of versions

We manufacture geomats with various backings and physical-mechanical performance





"HIGHWAY"

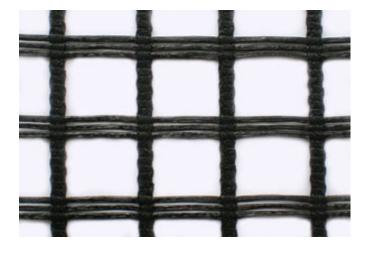
**GEOGRIDS FOR** 

**ASPHALT** 

REINFORCEMENT

## SCOPE OF USE. ADVANTAGES







Flat geogrids SSNP HIGHWAY, PS HIGHWAY and GB HIGHWAY are used for reinforcing asphalt-concrete motorway pavement.

SSNP HIGHWAY is produced of stabilized glass-fiber raw material.

GB HIGHWAY is produced of basalt raw material.

PS HIGHWAY is produced by warp-knitting method of polymer (polyester) fibers.

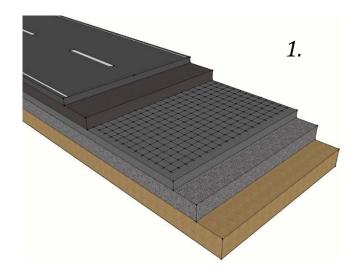
All geogrids are impregnated with complex formulations based on bituminous binding agents in order to improve their adhesive behavior.

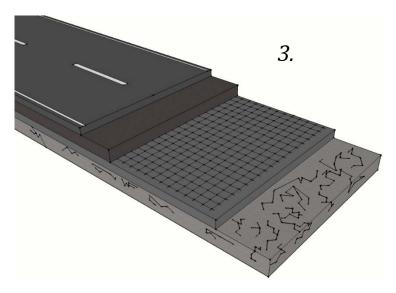
"HIGHWAY" geogrids significantly extend inter-maintenance period of road pavement.

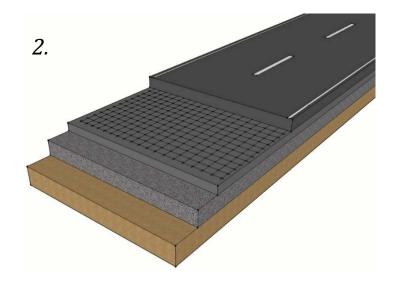
"HIGHWAY" geogrids extend service life of road structure, increase its bearing capacity, reduce shear deformation and slow crack and rutting formation.

## LAYING CONFIGURATIONS









- 1. We recommend to lay "HIGHWAY" geogrids underneath two layers of asphalt concrete, which is mainly the case when a new road is constructed or during road renovation.
- 2. We recommend to lay "HIGHWAY" geogrids underneath one layer of asphalt-concrete, which is the case during road maintenance.
- 3. We recommend to lay "HIGHWAY" geogrids onto cement concrete base. Geogrid is laid onto asphalt-concrete leveling course.
- 4. When laying three layers of asphalt concrete, it is recommended to lay geogrid on the bottom layer.



"POLISET"

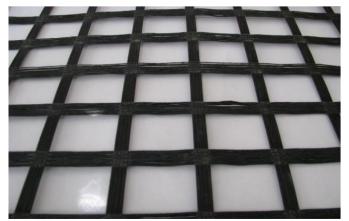
GEOGRIDS FOR

REINFORCING ROAD

**PAVEMENTS** 

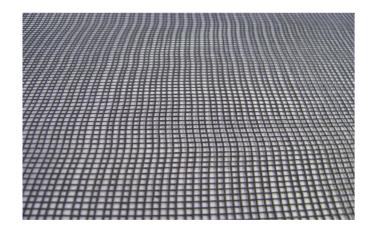
## DEFINITION. SCOPE OF USE





PS "POLISET" is made of high-strength polyester threads saturated with protecting compositions according to thread-sewing technology

POLISETs are used to prevent ingress of coarse-fractioned materials to underlayers when constructing permanent and temporary roads, including those on weak base.



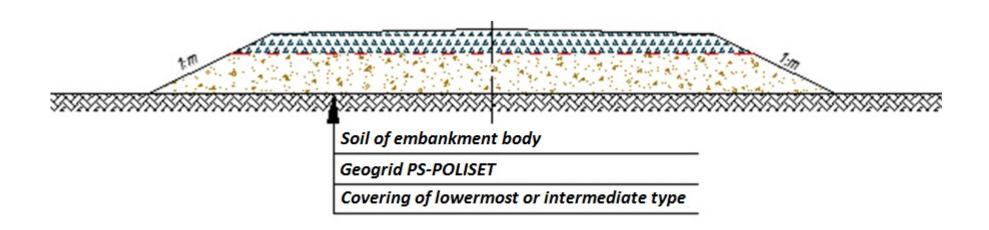
Functions of geogrids in ground structures:

- The increase of bearing capacity;
- The insurance of general stability;
- The reduction of differential settlements;
- The extension of service life.

## **CONSTRUCTIVE SOLUTIONS**



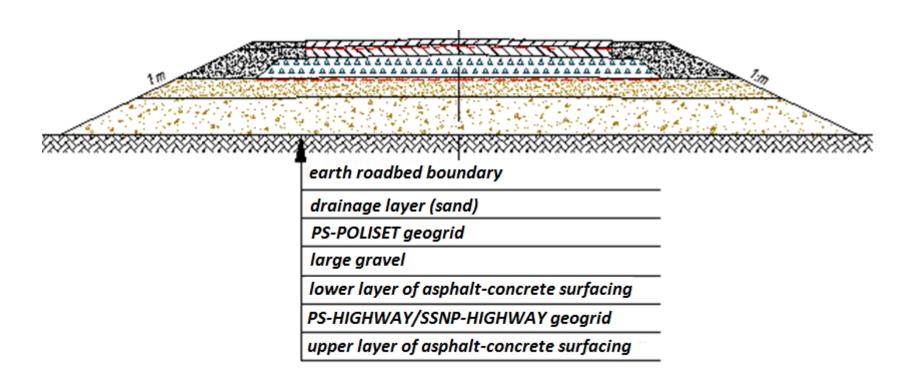
### Road dressing of lowermost or intermediate type



## **CONSTRUCTIVE SOLUTIONS**



#### Heavy-duty pavement



## **ADVANTAGES**



#### Decrease in differential settlements

Due to redistribution of incoming loads caused by motor vehicles to a greater area, banked ground settlement is more uniform.

#### 2. Separation Extension of road dressing service life

Structural layers of sand and macadam are not intermixed and function for a long time.

#### 3. Decrease in thickness of macadam layer

When calculated, macadam layer thickness may sometimes be 15-30% reduced by means of increasing general elasticity modulus of road dressing, depending on road characteristic and properties of construction materials.



























## 5 REASONS TO START COOPERATION



- We have been producing glass-fiber materials for 56 years
- More than 3 700 projects have been implemented using our products
- Full-cycle manufacturing enterprise: from production of glass-fiber to manufacture composite articles and designing application solutions
- Quality of products is confirmed by Russian and international certificates
- European equipment, team of experienced and qualified specialists, innovative approach to work



# THANK YOU FOR YOUR ATTENTION!