GEOKRATA

systems stabilization of grounds

TABOSS

www.taboss.pl

THE GEONET TABOSS

TECHNICAL DATA

THE GEONET TABOSS is produced of polyethylene (PEHD). It is made of strip, which are knurled double sided and spot welded with ultrasounds. The cellurar walls are 50, 75, 100, 150, 200 mm high.
The welds are lined in two rows, 9 weld in a row, 340 mm far one from another (other distance on request). There may be curbs on every wall. The segments while extended are similar to honeycombs. THE GEONET is made of flammable plastic. Plasticity at 130 °C, possibility of inflammation at ca. 360 °C.

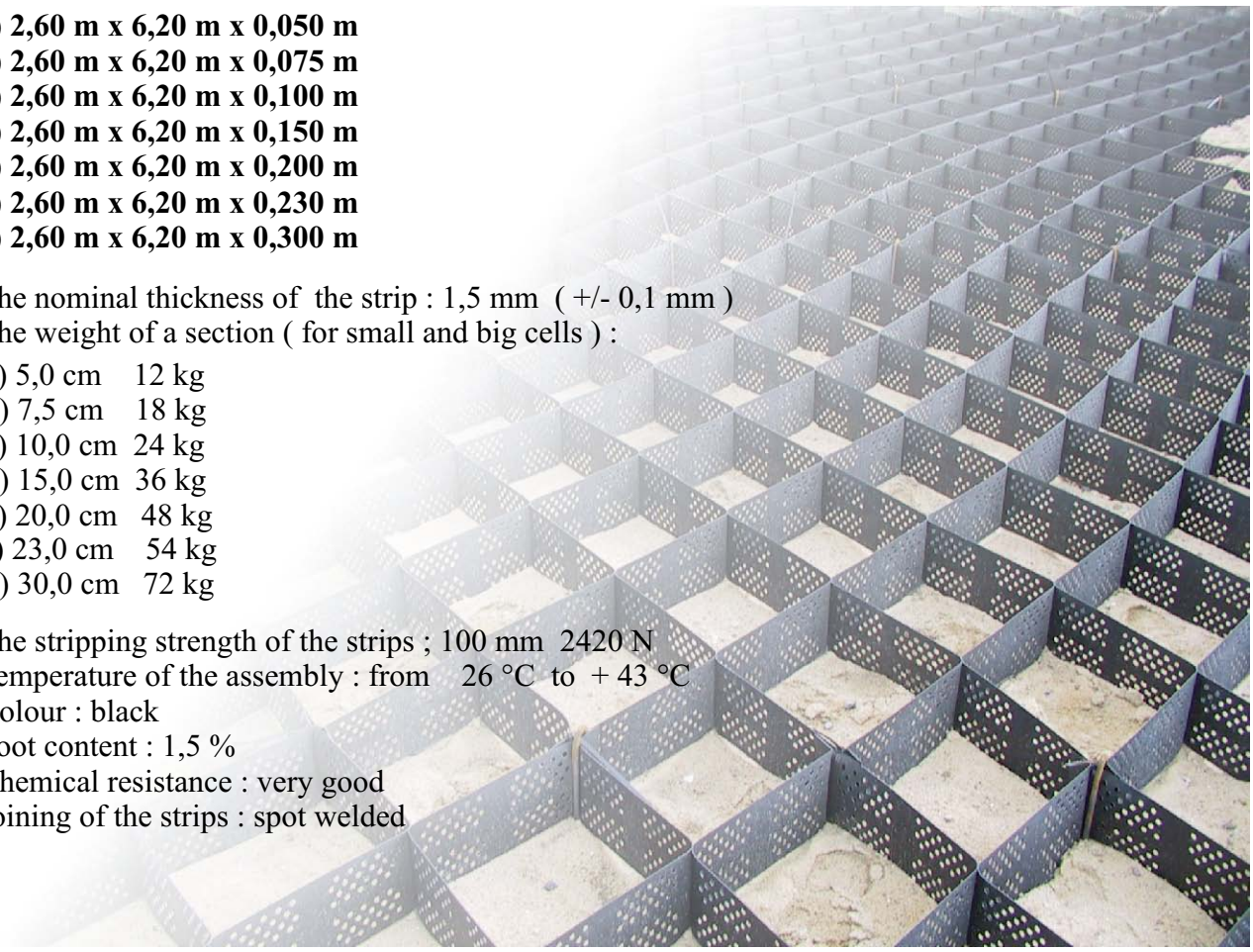
The most interesting think about our product is the use for stabilization of ground, because the material is not biodegradable. This feature is a great advantage in these circumstance , Since it quarantees a long lasting exploition of THE GEONET without worsening of the technical parameters.

THE GEONET TABOSS is in two sizes available : GEOKRATA - small and big cells.
The area of a single section THE GEONET SMALL CELLS : **16,12 m²,** the area of a single small cell : **277 cm²**
The area of a single section THE GEONET BIG CELLS : **32,24 m²,** the area of a single big cell : **1108 cm²**

1.Dimensions of a section while extended :

a) 2,60 m x 6,20 m x 0,050 m
b) 2,60 m x 6,20 m x 0,075 m
c) 2,60 m x 6,20 m x 0,100 m
d) 2,60 m x 6,20 m x 0,150 m
e) 2,60 m x 6,20 m x 0,200 m
f) 2,60 m x 6,20 m x 0,230 m
g) 2,60 m x 6,20 m x 0,300 m

2. The nominal thickness of the strip : 1,5 mm (+/- 0,1 mm)
3. The weight of a section (for small and big cells) :
   a) 5,0 cm 12 kg
   b) 7,5 cm 18 kg
   c) 10,0 cm 24 kg
   d) 15,0 cm 36 kg
   e) 20,0 cm 48 kg
   f) 23,0 cm 54 kg
   g) 30,0 cm 72 kg
4. The stripping strength of the strips ; 100 mm 2420 N
5. Temperature of the assembly : from 26 °C to + 43 °C
6. Colour : black
7. Soot content : 1,5 %
8. Chemical resistance : very good
9. Joining of the strips : spot welded



10.Quality inspection at receipt :

- the size of a section
- the thickness of the strip
- the width of the strip
- the distance between the spot welds
- the quality of conformance

Having measured the dimensions using suitable instruments we compare the outcome with the data from The Technical Approval.

If requested, we can carry out the measurements on the premises of our production plant, since we won a suitable instruments a tensile testing machine. This kind of research is made at room temperature on several samples of each sort.
Another type of research, undertaken by us every half a year in The Institute of Technology and Automation, encloses :

·the rearing strength of the welds
·the tensile strength of the strips

Hygienic Certificate : HK/B/1220/01/99

SUMMARY

The introduced THE GEONET is made of polyethylene (HDPE).
Since the material is not biodegradable, it can be successfully used a means of ground stabilization.

THE GEONET TABOSS

AIMS AND APPLICATION

QUICKNESS AND MODERNITY IN GROUND ENGINEERING

While designing new object one has to take into consideration the aspect of cooperation with the earthen foundation , which takes over the load. A weak subsoil is always a source of some extra forces, which afflict the construction and make it necessary to increase the foundations. Almost 20 years ago the reinforced ground has become the means to enhance the technical parameters of the subsoil it is always better to prevent than to cure consequences . Initially it was flat iron ; nowadays these are geotextiles, geonets and strips. Traditional methods of ground reinforcement were expensive and additionally required complicated equipment and highly qualified staff. THE GEONET is a cheaper alternative, which is quick to assemble and at minimum of equipment.

THE GEONET TABOSS

AIMS AND APPLICATION

THE GEONET TABOSS can be widely used in many field sof the building industry, with complicated geotechnical constructions always there, where huge or cyclic loads afflict the subsoil.

Thanks to its cellular structure, which is additionally strengthened by gravel, rubble or some local stuff. The Geonet is characterized by the following features :

- great fastness to unequal self consolidation of soil within huge stacking yard, car park, railway and road embankments
- fastening of the subgrade (under roads)
- convenience and quickness especially required while building escape routes, temporary roads and access roads for heavy equipment (e.g. to building sites) and for fastening of high embankments
- protecting of the outer sides of municipal dumps embankments and as an upper covering at their reclamation
- resistance to mining subsidence
- great weather resistance (to rain, frost, heat, thermal shock)
- great chemical resistance (tested to high concentration of acids).

THE GEONET TABOSS

THE GEONET TABOSS is a kind of ground reinforcement. It is a supple layer of 100 mm which reduced localized contact stresses between the subsoil and the layer. The stresses spread out and the mechanism of this is the following :

- the stresses from the wheel cause vertical stresses in the stuff filling the cells and as a consequence the pressure at the cellular walls

- the elastic strip takes over a part of these forces, the rest of them press against the next cells and bring about thrust forces in them

- the cells cooperate in the network and cause an increase in condensation of the stuff in them ; in this way big areas of the net get involved in the process of reducing of the vertical stresses afflicting the subsoil.

Since the cells block one another, shifting of the net and unequal self- consolidation of soil are practically impossible.

THE GEONET TABOSS is a remedy in case of weak ground. But there are other conditions for the enterprise to be successful : knowledge of the natural conditions and analysis of the technical documentation.

ASSEMBLING

Before the assembly the layer of humus has to be removed and the area levelled. If the geotechnical parameters of the subsoil are not satisfying (satisfying are : gravel, condensated sand, rubble) one has to put an layer of geotextiles under…….

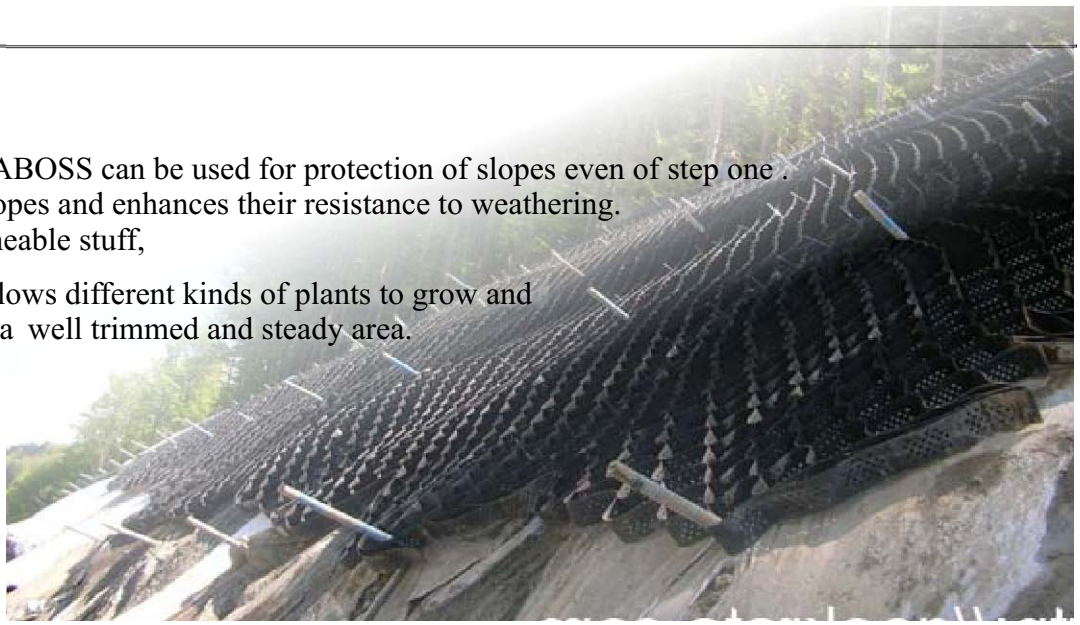
THE GEONET . Next the cells are tilled . A great advantage is that the segments are light to carry, easy and quick to assemble, and you may immediately afterwards use heavy equipment on it.

EXAMPLES

The slopes

THE GEONET TABOSS can be used for protection of slopes even of step one . It stabilizes the slopes and enhances their resistance to weathering. If filled with permeable stuff,

THE GEONET allows different kinds of plants to grow and the final effect is a well trimmed and steady area.



THE GEONET TABOSS

Fastening of the subgrade (under roads)

There are strict rules about the load capacity of the ground, on which roads are the built .
In Poland the secondary module has to amount to at least 100 Mpa .

In most cases the subsoil is replaced with better one (of bigger load capacity).
This brings about a remarkable increase in costs. THE GEONET TABOSS is a cheaper ,
quicker and easier way to fasten the ground. It is then filled with earthen stuff.
The thickness of such a construction can be to 50% smaller than with traditional methods.

Storm sewers (Canals, ditches, drains)

Similarly, also the slopes of sewers can be protected against weathering and sliping with
THE GEONET TABOSS. Another advantage is the drainage of the area along the sewers
on conditio one uses suitable stuff (ruble, gravel).

Also railway embankments are the risk of deformation due to huge stresses afflicting the ground.
The consequences are expensive modernization and a long term closing of the section.
With THE GEONET TABOSS is it possible that a comprehensive overhaul will last much shorter.

48-303 Nysa ul. Nowowiejska 21
Tel. +48 077 4310 781, fax: +48 077 435 85 39
e-mail : producent@taboss.pl

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Partner:

www.taboss.pl