

Erosion control

Soil erosion is a natural process by which the top layer of soil is worn away due to factors such as water and wind. Topsoil is the top layer of soil and is the most fertile because it contains the most organic, nutrient-rich materials. However, human activities such as farming and new construction have accelerated this process to a significantly dangerous level harming all types of natural resources.



Severely eroded slope



Severely eroded beach

Even today with strict government regulations, soil erosion has been identified as the main source of water pollution. Runoff sediment accounts for more than two-thirds of all pollutants entering the U.S. waterways. The runoff sediments increase turbidity, reduce water holding capacity and create problems for aquatic organisms. Toxic heavy metal contaminants which can adhere to these sediments may enter our waters and cause toxicity problems. The adverse effects of erosion on wetlands have heightened awareness of the need to clean up and restore soils, waters and wetlands.

Erosion control blankets (ECB) are used to protect soil from rain and wind erosion and to support establishment of sustainable vegetation.

Traditionally, synthetic erosion control blankets (temporary, extended temporary and permanent) with photo-degradable synthetic nets were introduced to control erosion. These blankets did significant damage to our environment mainly due to danger to wildlife from the synthetic nets. Also, after the vegetation is established, the synthetic became a big nuisance for maintenance activities.

Disadvantages of GeoSynthetic erosion control blankets

- These nets have fixed joints that pose a threat to wildlife movement and activities.
- These nets also create problems in maintenance of the vegetation. These photo degradable nets easily tangle with mowing equipment and destroy the nicely established vegetation as well as destroying the mat.
- These light weight TRMs do not blend with soil well and tend to come off the soil easily.



Snake tangled and died in the synthetic net blanket.



Snake tangled in the synthetic net blanket.



Synthetic net coming out of the ground. This net will tangle with moving equipment create damage to ground as well as to moving equipment.

GeoNatural™ erosion control blankets

GeoNatural™ erosion control blankets are the solution for today's environmental demands. They inherently support establishment of vegetation which is the objective of erosion control. GeoNatural™ erosion control blankets are available in temporary, extended temporary and semi-permanent categories.

Advantages of GeoNatural erosion control blankets.

- Woven bristle coir blankets provide protection for tough erosion problems. RoLanka's BioD-Mat woven bristle coir blankets have a higher tensile strength and a four- to six-year functional life.
- Completely natural and biodegradable.
- Completely wildlife safe and easy to maintain. No plastic materials to interfere.
- Add mulch and improve soil upon biodegradation.
- Provide aesthetically pleasing applications.
- These hold moisture and support seed germination and seedling growth.
- The ability to plant through the mat without having to cut into it is a big advantage in these semi-permanent, open weave blankets.

- Vegetation successfully comes through these natural mats better than synthetic TRMs.
- They are excellent for use in establishing vegetation in channels and slopes where maintenance is required. Field experiences support these products further due to the ease of mowing and maintenance of the restored areas.
- These semi-permanent natural blankets have repeatedly proven to perform better than the synthetic permanent mats and provide true green solutions in these applications.

Vegetation comes easily through natural mats than synthetic TRMs



GeoNatural™ mats provide aesthetically pleasing applications



RoLanka's offerings following GeoNatural™ soil erosion control blankets:

1. Temporary Mats

BioD-Straw -double natural net with 100% straw blanket

JuteMat – woven jute blanket

2. Extended Temporary Mats

BioD-StrawCoco - double natural net with 70% straw and 30% coir blanket

BioD-OCF - double natural net with 100% coir blanket

3. Semi-permanent Mats

BioD-Mat 40 – 460 g/m² woven bristle coir blanket

BioD-Mat 60 – 600 g/m² woven bristle coir blanket

BioD-Mat 70 – 780 g/m² woven bristle coir blanket

BioD-Mat 90 – 980 g/m² woven bristle coir blanket

Use natural and biodegradable soil erosion control blankets and protect our natural resources.

