biodegradable weed mats

BIODEGRADABLE WEED MATS – 'THEY COME FROM NATURE AND GO BACK TO NATURE'

The Rainbow biodegradable weed mats (bio-weed mats) are made of 100% plant material. The fabric contained in the bio-weed mats will simply biodegrade to compost at the end of their lifetime providing a nutrient rich element for the soil and reduce any possible ongoing maintenance costs to the absolute minimum. The use of these type of mats means that the use of synthetic mats or herbicides can be avoided which are so harmful to the environment. The mats are supplied in a subtle brown colour that blends harmoniously with the landscape and can be secured in place with a Rainbow biodegradable weed mat peg. After a period of 3-5 years the plants will have grown over the fabric which will take over the light blocking function of the bio-weed mat. The mats are UV stable and do not require any mulch, bark or wood chips to cover the fabric.

Environmentally friendly weed and erosion control Enviro friendly

The Rainbow bio-weed mats have been used in Europe since 2011 with many projects successfully completed. They not only prevent weed growth but protect the underground against surface erosion from wind and rain.

What are the advantages?

UV stable - The raw material is PLA** which is UV stable. Sunlight will not break down the product, therefore there is no need to cover up the fabric with expensive bark or wood chips. Rainbow bio weed mats will biodegrade through combined action of microorganism, temperature and humidity.
Fire resistant - Being made from PLA Rainbow bio weed mats are naturally fire resistant. There is no risk of fire ignition (cigarettes, vandalism) unlike natural fibre blankets like coir, jute, hemp.
Excellent water and air permeability - The water permeability of Rainbow bio weed mats is 10 times better than woven fabrics which will promote the growth of the young plants.

Why use Rainbow biodegradable weed mats?

- Requires no maintenance after installation, they are the perfect sustainable solution for landscape and roadside planting.
- Outstanding water and air permeability which stimulates the growth of plants.
- UV stable and will not shrink when exposed to sun, therefore no need to cover with mulch or bark.
- Prevents surface erosion.
- Easy to transport, cut and install

**What is PLA?

Poly Lactic Acid or PLA is made from plant material. Starch and plant sugars are used as renewable resource. Today, mainly side and waste streams of the corn industry are used as feedstock.

How is PLA produced?

It all starts with the sun! During the process of the photosynthesis, the leaves of green plants will absorb CO2 from the atmosphere. A molecule CO2 is combined with a molecule water to form sugar and oxygen. The molecule oxygen is released back in the atmosphere. The sugar is used as fuel for the plants. Any unused sugar is stored as starch and can be harvested. Industrially, dextrose (sugar) is created from the harvested plant starch through a process called hydrolysis. Next, microorganism will convert the sugar into lactic acid through fermentation. The PLA polymer is formed either by (1) direct condensation of lactic acid or (2) via the cyclic intermediate lactide through a ring opening process. PLA is formed!

Technical Specification

Product	WEEDCONTROL 150 g/m²		
Colour	BROWN		
Composition	100 % Bio fibres (PLA) from EU		
Weight	EN ISO 9864	150 g/m²	+ 10%
Thickness	EN ISO 9863-1	0, 9 mm	- 0, 3 mm
Tensile strength (L)	EN ISO 10319	3 kN/m	- 0, 5 kN/m
Elongation (L)	EN ISO 10319	40 %	- 10%
Tensile strength (W)	EN ISO 10319	3 kN/m	- 0, 5 kN/m
Elongation (W)	EN ISO 10319	40 %	- 10%

Ignitability by smouldering cigarette EN ISO 12952-1/2 succeeded

General Specifications

Mat dimensions (small with slit)	500mm sq.	+/-3%
Mat dimensions (large with slit)	1000mm sq.	+/-3%
Roll dimensions -		
Length	100 m	+/- 3%
Width	1 m	+/- 1%
Weight	17-20kg	

Other conditions

Life time is strongly dependent on storage conditions before installation. Before installation, product should be stored in dry conditions and out of direct sunlight. Recommended shelf life before installation: max one season. Under these circumstances, a minimum life time of 3 years (after installation) is expected. Free from algae, mosses, weeds & moulds.

Applications

- Landscaping
- Horticulture
- Amenity

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