

Hy-Tex Ecotex MulchMat™ Biodegradable Weed Control Matting



Ecotex MulchMat™ is a new, organic weed suppression blanket which fully breaks down into nutritious matter over 3 to 5 years leaving no synthetic residues.

Ecotex MulchMat™, which also passes the cigarette burn test, is an effective, easy to use and economical solution for low maintenance weed control and moisture conservation in planted areas and has an extremely low carbon footprint making it the most environmentally sound method available.

Ecotex MulchMat™ looks and feels like conventional non-woven, petrochemical derived (oil based) weed control fabric but is the only product made from an environmentally friendly alternative called Polylactic Acid (PLA).

PLA is a biopolymer made by fermenting plant sugars extracted from starch rich, 100% annually renewable, vegetables such as corn or sugar beet, and the production requires fewer fossil fuel resources and generates less greenhouse gases compared to traditional plastic fabrics. Furthermore, *Ecotex™* felts can be composted resulting in complete decomposition and biodegradation of the material into water, carbon dioxide and nutrients. *Ecotex MulchMat* is stronger, more durable and stable and easier to handle than any previous natural mulch fabrics and is inherently fire resistant. While the earthy brown colour blends harmoniously into the landscape.

Weed Control The dense, tightly bound, construction of *Ecotex MulchMat™* provides an effective barrier against weed penetration and the high shade factor starves any underlying seedlings of the light they need for growth. While the specially heat fused underside discourages growth of airborne seeds (a common problem with other biodegradable blankets products) - resulting in a low maintenance solution.

Avoid Future Inconvenience On the majority of projects control of competitive weed growth is only required during the critical first years of plant development after which the vegetation takes over the role of suppression weed growth. Furthermore, weed control sheets that persist beyond this period can in fact pose problems for future land use (grazing) and maintenance (snagging in mowers).

Ecotex MulchMat™ is made purely from polylactic acid, which breaks down naturally over time to leave no undesirable residue.

Strong and Robust Although the use of biodegradable blankets is not new, the structural stability and life have often proved unsatisfactory. The needlefelt construction and heat bonded underside of *Ecotex MulchMat™* offer superior performance, strength and tear resistance and the PLA fibre is UV stable.

Fire Resistant Particularly in public areas the risk of ignition of weed control fabrics by discarded cigarettes, or deliberate vandalism is a common problem. Being made from PLA resin *Ecotex MulchMat™* is naturally fire resistant, passing the EN ISO 12952 1/2 test for cigarette ignition, has a slow burn rating (25% Limited Oxygen Index under ASTM D2863) low flame propagation, self-extinguishes rapidly and generates very little smoke.

Improved Growing Conditions *Ecotex MulchMat™* creates an environment that is beneficial to rapid and healthy plant growth. In addition to suppressing competitive weed growth, the blanket provides insulation and conserves ground moisture by lessening evaporation.

The permeable matting is also hydrophilic - absorbing large amounts of water, which will either be gradually absorbed into to the ground, or evaporate into the atmosphere to improve the micro-climate.

Environmentally Friendly Unlike many other "natural fibre" products *Ecotex MulchMat™* does not contain synthetic nets to retain or reinforce (which are a potential snagging danger to animals), nor does it have a photodegradable plastic backing sheet as these only fragment in to smaller pieces that can accumulate and contaminate the environment.

Using *Ecotex MulchMat™* also avoids regular application of herbicides.

Erosion Control *Ecotex MulchMat™* shelters the underlying bare surface from erosion caused by rain and wind. The blanket therefore improves ground stability, and consequently allows plants to develop unhindered. Once this new vegetation is established the binding root network and protective canopy will take over the role.

Visually Pleasing The subtle brown colour of *Ecotex MulchMat™* blends well with surrounding ground, so does not require any top dressing to disguise it. This is particularly useful on sloping sites as loose dressings (such as bark chips) are impractical.

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Property	Hy-Tex Ecotex MulchMat™
Composition	100% PLA (Poly Lactic Acid) fibre non-woven needlefelt with heat fused underside
Colour	Brown
Weight [EN ISO 9864]	150g/m ²
Thickness [EN ISO 9863-1]	0.90mm
Tensile Strength md/cd [EN ISO 10319]	2kN/m
Elongation md/cd [EN ISO 10319]	0.50mm
Water Permeability [EN ISO 11058]	120 l/m ² /sec
Shade Factor	+95%
UV Resistance [UK climate]	50% strength loss after approx 5 to 6 years
Biodegradability (Half life MW; 20°C - 70% RH)	max 1000 days
Compostability [EN ISO 13432]	Fully certified
Fossil Energy Usage (PLA resin)	34 MJ/kg
CO ₂ Emission (PLA resin)	0 kg CO ₂ /kg PLA
Smouldering Cigarette Test [EN ISO 12952 - 1/2]	No ignition
Roll Sizes	1.00, 2.00, 3.00 and 4.10m x 50.00m
Tree Mats	0.50 x 0.50m and 1.00 x 1.00m cut to centre

Made by a quality assured European manufacturer utilising wind turbine energy

it comes from nature ...

... and returns to nature



the sustainable solution



plants
100% annually renewable sources



Confused?

Confused by all the terms used to describe degradability of plastics.

Degradable

Oil based plastics that break down through chemical reactions (e.g. sunlight and oxidation) making them brittle so they fragment into small pieces which can still pose a long term environmental hazard.

Biodegradable

Materials, often made from plant or animal sources, that break down through the action of naturally occurring micro-organisms (e.g. bacteria, fungi etc) over time. However, if buried they may break down under anaerobic conditions releasing methane (which has 62 times greater global warming potential than carbon dioxide).

Compostable

Similar to biodegradable plastics but "greener" as at least 90% of the material must break down into carbon dioxide, water and biomass of no more than 2mm within 12 weeks in a compostable environment, not produce any toxic material and should be able to support plant life. Products that meet these stringent tests are certified to the above standard.

recovery
biodegrades over time and is fully compostable

production
Ecotex fibre created and converted into MulchMat fabric

how it's made
Sugars taken from plants grown every year are transform into Ecotex biopolymer

climate
less greenhouse gas emissions (Over 31% less than polypropylene, for example*)

science
plant sugars transformed into Ecotex biopolymer through fermentation

environment
less fossil fuel used in production (Over 42% less non renewable energy use than polypropylene, for example*)

* manufacturing targets are already being implemented to improve these results further



Wheat



Sugar Beet



Corn



Sugar Cane

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