



Agrotextiles



Biodegradables



Geotextiles



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Wildlife



Living Walls & Roofs



Accessories



microgreens - tiny greens - vegetable confetti - sprouts - cresses - micro leaf - micro herbs - baby leaf - wheatgrass - micro salads

EcoStrate™ PLA

EcoStrate™ PLA is a new lightweight, fully biodegradable, stabilised substrate designed for the hydroponic cultivation of microgreens, salads and herbs.

The number of companies growing microgreens has increased tremendously in the last decade. These tiny plants produce up to 40 times more nutrients (including vitamins C, E, and K) than their mature counterparts and, due to their high antioxidant content, are considered a "functional food" (a food that promotes health or prevents disease). While the colour, texture and intense flavour of microgreens have made them very popular with consumers.

A clean, soil-free product at harvest is important both in terms of appearance and food safety, which is why stabilised growing media is so popular with microgreen growers. However, most of these products are made of synthetic materials. EcoStrate™ PLA now offers a bio-based alternative for a more environmentally aware society.

Ideally suited as a growing mat for any scale of production (ranging from the food industry to urban farming and hobbyist), EcoStrate™ offers a superior growth media that absorbs and retains water while providing an optimal environment to promote rapid germination and plant growth with dense healthy root development.

This natural fibre (PLA) based bio-polymer matting manages water efficiently for best growth in a variety of hydroponic systems and the needle-felt structure has been designed to offer high aeration at root level.

The inert fibre of EcoStrate™ PLA is less prone to bacterial growth and designed to maintain its structural integrity for the entire crop cycle (so will not clog filters) but critically is certified fully compostable to BS EN 13432:2000 as it is made from Poly Lactic Acid (extracted from fermented plant sugars).

Benefits for Plants:

- Holds the optimal amount of water
- Roots are stabilized
- pH balanced

Benefits for Growers:

- Suitable for certified organic operations as fully compostable
- Lightweight (only 200 g/m²)
- Ready to plant, no pre-treatment required
- Custom widths available
- Easy to handle and use



Application Categories: Horticulture, Agriculture and Equestrian

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Directions for Use

Be it a commercial greenhouse, vertical farm or window ledge here are the keys to growing health microgreens:

Pre-soak large seeds as these can be more challenging to grow in stabilized media.

Dampen the EcoStrate™ PLA growing medium so it is saturated but not waterlogged, either by spraying or soaking overnight and then let any excess water drain.

Sow the seeds by evenly sprinkling over the surface to the desired density. EcoStrate™ PLA can support tightly-packed seedlings.

Lightly and evenly water or mist the seeds. Make sure the entire seed stays moist.

The microgreens germinate easily on the felt mat with the right humidity (90%). To achieve this cover the seeds or make sure to put them in a room with the right humidity.

Place in a suitable dark germinating area, at an ideal temperature of 22°C (72°F) for between 1 and 8 days depending on crop.

Take the cover off as soon as you see that the seeds have germinated. The ideal temperature to grow is around 20 to 22°C (68 to 72°F) and place in a sunny/bright location.

EcoStrate™ performs best when generously watered using ebb and flow or NFT channel systems, but can also be maintained manually. The amount of water will vary depending on the system used but the felt should be kept moist, not saturated, and the water level should not be higher than the top of the medium. If water pools on the felt, reduce watering.

Cut your microgreens with a sharp knife or scissors, most are delicious after they develop their second set of leaves, and are about 5cm (2 inches) tall.

Enjoy your microgreens. You can eat them on sandwiches, in stir fry, on pizza, in green smoothies, in salads, or as a garnish.

Growing Guide for Common Microgreens

Difficulty	Easy									
Seed										
	Arugula	Broccoli	Cabbage	Chai	Kale	Kohlrabi	Mustard	Radish	Sunflower	Wheat grass
Seeding Rate oz/yd ² g/m ²	4.5 153	6.5 220	6.5 220	6.5 220	6.5 220	4.5 153	4.5 153	10.5 370	58.5 1,983	104.0 3,525
Pre-Soak	No	No	No	No	No	No	No	No	Yes	Yes
Blackout (Days)	1 to 3	2 to 3	2 to 4	2 to 3	2 to 4	2 to 4	2 to 4	2 to 4	2 to 4	2
Harvesting (Days)	8 to 14	10 to 14	8 to 12	8 to 12	8 to 14	10 to 14	8 to 12	10 to 14	8 to 14	8 to 10
Notes										

Difficulty	Average					Hard					
Seed											
	Celery Leaf	Pea Shoots	Fennel	Leek	Sorrel	Amaranth	Basil	Beets	Chard	Cilantro	
Seeding Rate oz/yd ² g/m ²	5.0 170	78.0 2,645	6.5 220	13.0 440	6.5 220	6.5 220	6.5 220	6.5 220	13.0 440	13.0 440	
Pre-Soak	No	Yes	No	No	No	No	No	Yes	Yes	No	
Blackout (Days)	6 to 8	3 to 5	3 to 5	3 to 5	3 to 5	3 to 6	4 to 7	6 to 8	4 to 7	6 to 7	
Harvesting (Days)	18 to 21	8 to 14	14+	12 to 14	12 to 16	8 to 14	14 to 18	10 to 14	10 to 14	21 to 28	
Notes	Slow to germinate and emerge	Use plenty of water when soaking seeds		Seed heavily	Keep seeds in freezer to help with germination	Prefers warmer environment, sensitive to direct light	Spray through to establish root				Keep medium moist during blackout period, prefers cooler temps

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