

ProGanics[®] Biotic Soil Media[™] (BSM[™]) is designed as a biodegradable alternative to topsoil to accelerate development of depleted soils/substrates with low organic matter, low nutrient levels and limited biological activity. ProGanics BSM is made in the United States, plastic-free, non-toxic and contains 100% recycled bark and wood fibres that have been phytosanitized to eliminate potential weed seeds and pathogens—prior to the introduction of soil building components. This proprietary blend of soil building components includes high-viscosity colloidal polysaccharide biopolymers, biochar, seaweed extract, humic acid, endomycorrhizae and beneficial bacteria.

Recommended Applications:

- Development of soils with low organic matter (< 5%)
- Rapid establishment and sustained growth of vegetation
- Replacement of costly or difficult to obtain topsoil
- Replacement of compost, pear, manure and other sources of organic material
- Typically installed beneath Hydraulically-applied or Rolled Erosion Control Products (HECPs and RECPs) as growing media

Technical Data			
Physical Properties*	Test Method	Units	Tested Value
Topsoil & Engineered Soil Amendment	ASTM D5268-19	n/a	Compliant
Organic Material	ASTM D586	%	≥ 94
Mass/Unit Area	ASTM D6566 ¹	g/m ² (oz/yd ²)	≥ 392 (11.6)
Ground Cover	ASTM D6567 ¹	%	≥ 99
Water Holding Capacity	ASTM D7367	%	≥ 900
pH	ASTM D1293	n/a	6.0 ± 1.0
C:N Ratio	ASTM E1508 & EPA Method 1687	n/a	50:1 ± 10
Material Colour	Observed	n/a	Brown
Performance Perperties*	Test Method	Units	Tested Value
Cover Factor ²	ASTM D8298-Type 1	n/a	≤ 0.01 ⁴
Percent Effectiveness ³	ASTM D8298-Type 1	%	≥ 99 ⁴
Vegetation Establishment	ASTM D7322	%	≥ 850
Environment Properties*	Test Method	Units	Tested Value
Ecotoxicity ⁵	EPA 2021.0	n/a	Non-Toxic
Biodegradability	ASTM D5338	n/a	Yes
Certified BioPreferred [®] BioBased Content	ASTM D6866	%	100
EPA 503 Metal Pass/Fail	EPA 503 Metal Limits	Pass/Fail	Pass
Pathogen Reduction	40 CFR 503 Class A Compost	Pass/Fail	Pass
Elemental Impurity Limits	ASTM D8082	Pass/Fail	Pass
Carbon Footprint ⁶	Life Cycle Assessment	Unit CO ₂ e/Unit of product ²	≤ 0.5

Product Composition	Typical Value
Thermally Processed Bark and Wood Fibres ⁸ (within a pressurized vessel)	89%
Proprietary blend of Polysaccharide Polymers, Biochar, Seaweed Extract, Humic Acid, Endomycorrhizae, and Beneficial Bacteria	11%
Moisture Content	12%

* When uniformly applied at a rate of 3,500 pounds per acre (3900 kilograms/hectare) under laboratory conditions. 1. ASTM test methods developed for Rolled Erosion Control Products that have been modified to accommodate Hydraulic Erosion Control Products. 2. Cover Factor is calculated as soil loss ratio or treated surface versus an untreated control surface. 3. % Effectiveness = one minus Cover Factor multiplied by 100% 4. Performance Property Values derived from testing of ProMatrix Engineered Fibre Matric (EFM) applied at 3,500 pounds per acre (3,900 kilograms/hectare) over ProGanics at an application of 3,500 pounds per acre (3,900 kilograms/hectare). 5. 48-hour LC₅₀ >100% - LC₅₀ refers to the percent concentration of a substance in water when 50% percent mortality of an organism is reached. 50% mortality of the tested species (Daphnia magna) could not be achieved when subjected to 100% effluent concentration proving the material to be acutely non-toxic. 6. Cradle to factory gate (Conover, NC) life cycle assessment. 7. "Carbon dioxide equivalent" or CO₂e is a term for describing different greenhouse gases in a common unit. For any quantity and type of greenhouse gas, CO₂e signifies the amount of CO₂ which would have the equivalent global warming impact. The unit of CO₂e per unit of product is consistent ratio based on mass, regardless of what unit mass is chosen. For instance, there is 0.4 kg of CO₂e per kg of product or 0.4 oz CO₂-e per oz of product. 8. Heated to a temperature greater than 360 degrees Fahrenheit (193 degrees Celcius) for 5 minutes at a pressure greater than 50 psi (345 kPa) in order to be Thermally Refined[™] / Processed and to achieve phyto-sanitation.

Packaging Data			
Properties	Test Method	Units	Nominal Value
Bag Weight	Scale	kg (lb)	22.7 (50)
Bags per Pallet	Observed	#	40
UV and weather-resistant plastic bags. Pallets are weather-proof stretch wrapped with UV resistant pallet cover.			

To the best of our knowledge, the information contained herein is accurate. However, Terrafix Geosynthetics Inc. cannot assume any liability whatsoever for the accuracy or completeness thereof. Final determination of the suitability of any information or material for the use contemplated, of its manner Terrafix Geosynthetics Inc. 2025.