

# Landsource EcoBlanket™

## Temporary Erosion/Sediment Control Surface Blanket

**1.0 Description:** This work shall consist of furnishing, constructing and maintaining an EcoBlanket™ to Rexius specifications. EcoBlanket is a ground cover (surface blanket) of the Rexius specified compost/mulch (Erosion Blend) combined with a special additive (Microblend) constructed with a pneumatic blower to control and reduce soil erosion. An EcoBlanket stabilizes the soil, prevents splash, sheet and rill erosion, and removes suspended soil particles and contaminants from water moving off the site and into adjacent waterways or storm water conveyance systems.

**1.1.** This EcoBlanket must be applied by Landsource Organix Ltd., 12830 Britannia Road, Milton, ON L9T 7G5 , Phone 905 875 1366 (fax 905 875 4461) or equivalent certified EcoBlanket installer.

**1.2.** Materials must be applied using a pneumatic blower unit complete with a supplemental granular injection system capable of installing at least 15 cubic meters per hour.

**1.3.** Contractor must have at least 3 years of proven experience in successfully installing EcoBlankets™.

**2.0 Material:** The EcoBlanket filtering material consists of the Rexius Erosion Blend of compost and mulch materials, according to the Rexius particle sizing specifications, in combination with the Rexius Microblend additive.

**2.1.** Particle size must meet exact specifications of the Rexius EcoBlanket Erosion Blend material supplied by a certified supplier/installer.

**2.2.** The compost portion of EcoBlanket shall be derived from well-decomposed organic matter source produced by controlled aerobic (biological) decomposition that has been sanitized through the generation of heat and stabilized to the point that it is appropriate for this particular application. Compost material shall be processed through proper thermophilic composting, meeting the Canadian Council of Ministers of the Environment's (CCME) definition for a 'process to further reduce pathogens' (PFRP). The compost portion shall meet the chemical, physical and biological properties outlined below. These and all other required properties for the performance of the EcoBlanket are included in the Rexius EcoBlanket Manufacture Guidelines followed by certified suppliers/installers.

Parameters <sup>1,4</sup>	Reported as (units of measure)	EcoBlanket to be Vegetated	EcoBlanket to be left Un-vegetated
PH <sup>2</sup>	pH units	5.0 - 8.5	N/A
Soluble Salt Concentration <sup>2</sup> (electrical conductivity)	dS/m (mmhos/cm)	Maximum 5	N/A
Stability <sup>3</sup> Carbon Dioxide Evolution Rate	mg CO <sub>2</sub> -C per g OM per day	< 8	N/A
Physical Contaminants (man- made inerts)	%, dry weight basis	< 1	< 1

- <sup>1</sup> Recommended test methodologies are provided in Test Methods for the Examination of Composting and Compost (SCC through BNQ)
  - <sup>2</sup> Each specific plant species requires a specific pH range. Each plant also has a salinity tolerance rating, and maximum tolerable quantities are known. When specifying the establishment of any plant or turf species, it is important to understand their pH and soluble salt requirements, and how they relate to the compost in use.
  - <sup>3</sup> Stability/Maturity rating is an area of compost science that is still evolving, and as such, other various test methods could be considered. Also, never base compost quality conclusions on the result of a single stability/maturity test.
  - <sup>4</sup> Landscape architects and project (field) engineers may modify the allowable compost specification ranges based on specific field conditions and plant requirements.
- 2.3.** Rexius Microblend additive shall be injected into Erosion Blend material at time of EcoBlanket construction.
- 2.4.** A proof of certification as an EcoBlanket supplier shall be submitted to the engineer/landscape architect for approval prior to installation. Test results for EcoBlanket performance shall be made available upon request.
- 2.5.** Where seeding or planting is planned, Erosion Blend material must meet Rexius' minimum specification requirements for seeding purposes.

### **3.0 Construction:**

- 3.1.** The EcoBlanket shall be placed as shown on the plans or as directed by the Engineer.
- 3.2.** On areas with a slope of 1:2 or less, the EcoBlanket shall be uniformly applied directly at the soil surface with a pneumatic blower as specified by Rexius. EcoBlanket shall be applied at a depth of 50 mm and approximately 90 cm over the top of the slope, or overlap it into existing vegetation. In extreme conditions and where specified by the Engineer, EcoBerms shall be added and constructed at the top of the slope and in parallel intervals down the profile of the slope (6 metres to 9 metres apart) if necessary. **(The Engineer shall specify berm requirements)**
- 3.3. Rexius Microblend shall be applied/injected at a minimum rate of 615 kgs. per hectare (or as specified by Rexius), to be confirmed by inspector/project manager.**
- 3.4** EcoBlanket application depth may be modified based on specific site (e.g., soil characteristics, existing vegetation) and climatic conditions, as well as particular project related requirements. The severity of slope grade, as well as slope length will also influence the addition of EcoBerms and number of EcoBerm placements in combination with the EcoBlanket.
- 3.5.** If temporary or long-term vegetation is required, Erosion Blend material may be injected with seed during application. The Engineer/Landscape Architect shall specify seed requirements and the compost/mulch component shall abide by the minimum standards set by Rexius for seeding.
- 3.6.** Where vegetation is to be established, slightly roughen (scarify) slopes and remove large clods, rocks, stumps, roots larger than 50 mm in diameter and debris on slopes. This soil preparation step may be eliminated where approved by the Project Engineer or Landscape Architect/Designer, or where seeding or planting is not planned. Where practical, track (compact) perpendicular to contours on the slope using a bulldozer before applying EcoBlanket injected with seed.
- 3.7.** Do not use EcoBlankets in areas of concentrated flow (ie. ditches, streams, etc.)

**3.8.** Unless otherwise allowed by Engineer, seeding shall be performed within the local region's seeding deadlines.

**4.0 Maintenance:** The Contractor shall maintain the EcoBlanket in a functional condition at all times. Contractor shall make periodic inspections of the EcoBlanket for effectiveness and shall immediately correct all deficiencies. Where deficiencies exist, additional EcoBlanket material shall be installed immediately to required depth.

**5.0 Method of Measurement:** EcoBlanket shall be measured by the square meter, complete in place.

**6.0 Performance:**

**6.1.** Place EcoBlankets on denuded areas immediately or as directed by Engineer. EcoBerms and/or temporary or permanent vegetation shall be applied/established when necessary, along with other appropriate structural measures and controls, for additional erosion and sediment control.

**6.2.** The work specified in this **Section** consists of designing, providing, and maintaining erosion and sedimentation controls as necessary. All existing and foreseeable future conditions that affect the work inside and outside the site limits must be acknowledged as the Contractor's responsibility.

**6.3.** Contractor is responsible for providing effective sediment control measures based on performance. Contractor may, with approval from the Engineer, work outside the minimum construction requirements to establish a working erosion control system.