

# Envirolok Vegetated Retaining Wall Soil Fill Specification

## Description

This work shall consist of preparing an engineered soil mix containing all the physical chemical and biological properties required in the rootzone of the EnviroLok Vegetated Wall System. This mix is to be pre-blended offsite and approved by site Engineer and/or Landscape Architect.

## Materials (component specifications)

The materials will consist of Three components listed below which must meet the corresponding testing standards for each component.

### A: Coarse, clean River sand or mined sand meeting the following gradation. (60% by volume)

C33 Sand Gradation Table

Sieve Size	Passing %	Sieve Size	Passing%
3/8"	100	10 mm	100
No. 4	95-100	5 mm	95-100
No. 8	85-100	2.5 mm	80-100
No. 16	50-85	1.25 mm	50-90
No. 30	25-60	0.63 mm	25-65
No. 50	0-30	0.315 mm	10-35
No. 100	2-10	0.16 mm	2-10

### B: Nutrient Grade Compost: (20% by volume)

1. Compost must meet the following parameters

Plant Nutrients	% Dry Weight Basis	TMECC Method
Nitrogen	> 1.2	4.02-D
Phosphorus	> 0.50	Calc.
Potassium	> 0.50	Calc.
Calcium	>0.90	4.05
Magnesium	>0.20	4.05

2. Organic Matter Content	> 50%	5.07-A
3. Soluble Salts ds/m (mmhos/cm)	>4.0	4.08-A
4. Particle Size % under 9.5mm	95% or greater	2.02-B
5. Stability Indicator		
Respiration Rate	Very Stable < 2	5.08 B
Biological Available Carbon	Very Stable < 2	5.08 F
6. Maturity Indicator (bioassay)		
Percent Emergence	85% or greater	5.05
Relative Seedling Vigor	85% or greater	5.05-A
7. pH Value ( range in units )	5.7- 7.6	4.11-A

8. Select Pathogens Pass/Fail                      Pass                      Standard Method 9221E  
US EPA Class A Standards  
40CFR 503.32(a)

**C: Screened Topsoil from existing site (preferred) or imported. (20% by volume)**

- a. Soil shall be a sandy-loam to clay loam based soil. It shall be of uniform composition, and free of stones greater than 15mm, lumps, plants, and their roots, debris and other extraneous matter over one inch in diameter.
- b. Soil should be tested prior to screening and stock piling to ensure it is free from containments that would inhibit plant growth or harm water quality.

**Delivering and Storage**

- 1. Do not deliver or store soils in frozen, wet, or muddy conditions.
- 2. Protect soils and mixes from absorbing excess water and from erosion at all times. Do not store materials unprotected from large rainfall events