

## ENVIROLOK STANDARD UNIT BAG FILL MATERIAL SPECIFICATION:

A. Bag fill material should be selected with the desired vegetation and specific application in mind.

Criteria for bag fill material should be specified by the Designer; suggestions include:

1. Walls, slopes, and applications above High Waterline:
  - a. Freely draining native soils and granular materials clean of all debris, roots, branches stones in excess of 2" (50 mm) diameter and other deleterious materials. Remove soil contaminated with calcium chloride, toxic materials, and petroleum products.
2. Fill volume per bag:
  - a. Volume of bag fill material shall be approximately 1.25 cf (.0354 m<sup>3</sup>) or the equivalent, such that its dimensions are +-26" long x 15" wide x 5.5" high, after compacting with a hand tamper.

### **B. Properties should include (by volume)**

1. **Approximate Topsoil Content: 40% by volume recommended, 20-40% allowable.**
  - a. Topsoil shall be a sandy loam to clay loam-based soil. It shall be of uniform composition, screened and free of stones greater than 2" (50 mm) in diameter. Other lumps, plants, roots, debris, and other extraneous matter shall be less than 1" 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.
2. **Approximate Sand Content: 60% recommended by volume, 60-80% allowable.**
  - a. Coarse, clean river or mined sand meeting C33 Gradation Table

<u>Sieve Size</u>	<u>Passing %</u>	<u>Sieve Size</u>	<u>Passing%</u>
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	.63 mm	25-65
No. 50	0-30	.315 mm	10-35
No. 100	2-10	.16 mm	2-10

## **ENVIROLOK UNIT BAG FILL MATERIAL SPECIFICATION (Cont'd):**

- 3. Approximate Compost (Organic) Content: Compost is not recommended unless approved by Project Engineer or Landscape Architect. Percentage content shall not exceed 10%.**
- 4. Clay and Silts 0 - 5%**
- 5. Additional Criteria:**
  - a. Percolations shall be such that no standing water is visible 60 minutes after at least 10 minutes of moderate to heavy rain or irrigation.
  - b. Topsoil materials should be locally available or from commercially provided sources.
  - c. Mix all bag fill materials evenly.
  - d. Do not deliver or store bag fill material in frozen, wet, or muddy conditions.
  - e. Protect bag fill from absorbing excess water and from erosion at all times.
  - f. Do not store filled bags unprotected from large rainfall events.
  - g. Standard Envirolok Bag Content: Fill per bag is approximately 1.25 cu ft. (.0354 m<sup>3</sup>) or the equivalent, such that its dimensions are +-26" long x 15" wide x 5.5" high, after compacting with a hand tamper.
  - h. Envirolok 42T Mattress Bag Content: Fill per bag is approximately 1.0 cu ft. (.028 m<sup>3</sup>) or the equivalent, such that its dimensions are +-22" long x 18" wide x 3-4" high, after compacting with a hand tamper.
  - i. Other criteria may be required in Project Specific Engineered Drawings. Refer to Contract Documents.
  - j. Clay soils shall not be used for bag fill.
- 6. Below Waterline Applications:** As An alternate to the above specifications, fully submerged bags may be filled with the following:
  - a. Clean granular material; 3/4 in (20mm) gravel with minimum particle size 2mm.
  - b. #57 Stone



Revised Date: 01/01/2026