

Layered System for Extensive Green Roofs

Description:

The Columbia Green Extensive Layered System is a lightweight, cost effective built-up vegetative roof system consisting of a root barrier, drainage layer, filter layer, and water retention layer. This product can fit any design or layout since layers can be easily cut on-site to fit curves and angles.

The extensive layered system is designed for stormwater management. It detains and retains rain and irrigation water, to reduce or eliminate roof runoff. The system supports healthy root systems by allowing airflow under and up through the system. This high level of air permittivity throughout the individual layers also aids in de-energizing air flow under the system thus reducing the chance of system uplift.

Extensive layered systems are typically planted with low growing sedum or groundcover adapted the rooftop environment. Growing media depths range from a minimum of 3-inches to 6-inches and are based on root space needed, structural requirements, and stormwater retention goals.

System Components:

1. Columbia Green Root Barrier

A physical barrier preventing root intrusion into underlying waterproofing membrane

- Description: 15-16 mils thick

2. 0.375" Drainage Layer

Designed to mitigate excess moisture through ventilation and promote efficient drainage of the growing media

- Description: .375" thick highly permeable three dimensional entangled polypropylene matrix
- Installation: Do not overlap material. Install parallel to slope.

3. Filtration layer

Adhered to the Drainage Layer, prevents erosion of the growing media

- Description: Durable spun-bonded polyester with non-directional weave
- Installation: Overlap using provided 3" seams

4. 1.0" Water Retention Layer:

Provides supplemental moisture retention for green roof plants, and anchorage for plant roots

- Description: High loft nonwoven polyester blanket with anchorage points for promoting solid root structures
- Installation: Do not overlap material. Install perpendicular to slope.

5. Growing Media: Columbia Green Extensive Growing Media, Regionally Sourced

See Columbia Green Growing Media Technical Information Sheet

6. Plants: Low profile, typically pregrown sedum or sedum plugs and cuttings. Selected by Designer



Storage:

- Store components in a dry area.
- Store away from sources of ignition and extremely high temperatures.

Precautions:

- Avoid prolonged exposure to sunlight, heat, sparks and open flames.
- Wash exposed skin prior to eating, drinking or smoking and at the end of each shift

LEED Information:

Post-Consumer Recycled Content and Manufacturing Locations:

- Drainage Layer 40% ; Euclid, Ohio 44117
- Filtration Layer 0% ; Euclid, Ohio 44117
- Water Retention Layer Michigan City, IN 46360

System Weight*:

Root Barrier, .375" Drainage Layer, 1" Water Retention Layer, includes 2 lbs/s.f. plant material weight (plugs or cuttings)

System Depth	Dry Weight	Saturated Weight
3" Media Depth	11-14 lbs./ft ²	20-24 lbs./ft ²
4" Media Depth	14-18 lbs./ft ²	26-30 lbs./ft ²
6" Media Depth	20-26 lbs./ft ²	37-43 lbs./ft ²

* System weights vary by region due to variances in growing media weight contact your local representative for more information.

Packaging/Component Size:

1.0" Water Retention Layer, ML2101	
Thickness:	1.0" +/- 0.1"
Dimension:	92"W x 90 ft L
Color:	White
Coverage:	690 ft ²
Weight:	5.1 oz./yd ²
Packaging:	30"± dia. roll
Storage Volume % ASTM E2397	23 % (unit weight retained water)

Filter Layer: Pre-attached to Drainage Layer	
Weight:	3 oz./yd ² (0.33 oz./ft ²)

0.375" Drainage Layer, ML2107	
Thickness:	0.40"
Dimension:	48"W. x 100'L.
Coverage:	400 ft ²
Weight:	17 oz./yd ² (1.88 oz./ft ²)
Packaging:	24"± dia. roll

