

## Layered System for Semi-Intensive Green Roofs

### **Description:**

The Semi-Intensive Green Roof System has a thicker media depth, which gives designers the flexibility to add grasses and perennials in addition to sedum on their vegetative roofs which can add planting design options and biodiversity. Columbia Green Semi-intensive growing media, engineered to support a wider variety of plant materials is used in this system. It consists of a drainage layer, filter layer, and water retention layer below the growing media. It is easy to install- layers can be cut in the field to fit curves and irregular shapes.

The Semi-intensive Layered System is designed to retain water and decrease stormwater runoff. Once saturated, any excess water moves efficiently through the system and to the nearest roof drain. The Semi-intensive Layered Green Roof promotes plant health, allowing airflow in the drainage layer and through the media. The underlying membrane is protected with a Columbia Green root barrier. Growing media depths should be based on root space requirements for plant material selected, structural requirements, and stormwater retention goals. Depths typically range from 5" to 8". Consult with structural engineer to ensure your building accommodates the saturated weight of system.



### **System Components:**

1. Columbia Green Root Barrier

*A physical barrier preventing root intrusion into underlying waterproofing membrane*

- Description: 15-16 mils thick

2. 0.75" Drainage Layer

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

- Description: .75" 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. 0.5" 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 Semi-intensive Growing Media, Regionally Sourced

*See Columbia Green Growing Media Technical Information Sheet*

6. Plants: Selected by Designer, typically sedum, perennials, and ornamental grasses

### **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 Materials Transparency Information:**

Post-Consumer Recycled Content and Manufacturing Locations:

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

**System Weight\*:**

.75" Drainage Layer, .5" Water Retention Layer, includes 2 lbs/s.f. plant material weight (plugs or small containers)

System Depth	Dry Weight	Saturated Weight
6" Media Depth	24 - 29 lbs./ft <sup>2</sup>	39 - 46 lbs./ft <sup>2</sup>
7" Media Depth	27 - 33 lbs./ft <sup>2</sup>	45 - 53 lbs./ft <sup>2</sup>
8" Media Depth	31 - 38 lbs./ft <sup>2</sup>	51 - 60 lbs./ft <sup>2</sup>

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

**Packaging/Component Size:**

<b>0.5" Water Retention Layer, ML2102</b>	
Thickness:	0.65" +/- 0.10"
Dimension:	90"W x 107ft.
Coverage:	800 ft <sup>2</sup>
Weight:	3.6 oz. / yd <sup>2</sup>
Packaging:	30"± dia. roll
Storage Volume % ASTM E2397	24 % (unit weight retained water)

<b>Filter Layer: pre-attached to drainage</b>	
Weight:	3 oz./yd <sup>2</sup> (0.33 oz./ft <sup>2</sup> )

<b>0.75" Drainage Layer, ML2105</b>	
Thickness:	0.75"
Dimension:	48"W. x 50'L.
Coverage:	200 ft <sup>2</sup>
Weight:	16 oz./yd <sup>2</sup> (1.78 oz./ft <sup>2</sup> )
Packaging:	24"± dia. roll

