



Toll Free 866 675 9963

Extensive Green roof Media for the Midwest

www.GreenRoofSolutions.com

Analysis	Units	Results*	FLL**Guidelines for Single Course Extensive Sites
Particle Size Distribution			
Proportion of silting components (d < 0.063 mm)	mass %	4.7	≤ 7
Density Measurements**			
Bulk Density (dry weight basis)	g/cm3	1.21	
Bulk Density (dry weight basis)	lb/ft3	42.9	
Bulk Density (at max. water-holding capacity)	g/cm3	1.83	
Bulk Density (at max. water-holding capacity)	lb/ft3	67.6	
Water/Air Measurements			
Moisture (as Received Basis)	mass %	12.8	
Total Pore Volume	Vol. %	53	
Maximum water-holding Capacity	Vol. %	39.5	≥20
Air-Filled Porosity (at max water-holding capacity)	Vol. %	17	≥ 10
Water permeability (saturated hydraulic conductivity)	cm/sec	0.48	≥0.1
Water permeability (saturated hydraulic conductivity)	in/min	2.26	≥2.36
pH and Salt Content			
pH (CaCl2)		7.8	6.5-9.5
Soluble salts (water extract)	g /L	1.27	≤ 3.5
Organic Measurements			
Organic matter content	mass %	2.9	≤4.0
Nutrients			
Phosphorus, P205 (CAL)	mg/L	118	< 200
Potassium, K2O (CAL)	mg/L	360	< 700
Magnesium, Mg (CaCl2)	mg/L	102	< 200
Nitrate + Ammonium (CaCl2)	mg/L	17.4	< 80

* Listed range of values is typical for the Chicago region

** All values are based on compacted materials according to laboratory standards and testing methods defined by the

Forschungsgesellschaft Landschaftsentwicklung Landschaftsbau e.V.(FLL)

Landscape Development and Landscaping Research Society e.V.

Guidelines for the Planning Construction and Maintenance of Green Roofing, Green Roofing Guideline, 2008

Green Roof Solutions, Inc. 4336 regency Drive, Glenview, Il. 60025 reserves the right to adjust performance specification values due to availability of local materials or special project conditions related to plant selection and/or environmental conditions.

1. Mixing Procedures

- a. Saturate the lightweight aggregate with water to ensure proper soil component distribution.
- b. Mechanically mix appropriate proportions of remaining ingredients with the saturated aggregate until a uniform distribution is achieved.
- c. When stockpiling the finished mix, cover the pile with a waterproof tarp to prevent drying out or separation of soil components from rain.

2. Placement

- a. GRS Extensive Media shall be placed carefully to avoid damage or displacement of other materials such as walls, paving, drainage components, filter fabric, or roofing membrane.
- b. GRS Extensive media shall be placed to within 1 inch greater than final grade or to a depth of no greater than 8 inches and compacted as described in Point 3 below. For final grades less than 8 inches only one round of compaction shall be performed and remaining soil loosely placed such that top of soil exceeds final grade by 1 inch (see Point 4 below). For final grades greater than 8 inches, place soil at no greater than 6 inches and repeat procedure until soil has been compacted within 2 inches of final grade. The remaining soil shall be loosely placed at 1 inch greater than final grade and wetted (see Point 4 below).
- c. Compaction shall be performed with a 200 – 300 lb. landscape roller or lightly compacted with a hand held mechanical compactor to achieve a 50 – 60 % compaction as determined by ASTM D1557.
- d. After compaction remaining soil shall be placed and thoroughly watered or jetted over entire area. Fill settled low areas with additional soil and re-wet to achieve uniform prescribed final grade.