

# Filtrex® GardenSoxx™ for Roof Gardens

## *Fruits, Vegetables, and Landscape Plants*

### **GARDENSOXX™ FOR ROOF GARDENS**

#### **Description**

Filtrex GardenSoxx™ are a contained planting system consisting of an 8” or 12” diameter GardenSoxx™ with customized growing media. Growth media is varied dependent on two parameters; 1) what are the target weight and structural limitations of the rooftop and 2) what is desired to be grown.

Typically in 2’ or 3’ lengths, they are easily transported and arranged in garden and landscape layouts on rooftops, parking structures and other elevated landscapes.

#### **Function**

The use of GardenSoxx™ for rooftop gardens, provides numerous functional advantages compared to other similar systems;

1. A completely contained media within a tubular mesh prevents washout and wind erosion
2. GardenSoxx™ are easily transported to the rooftop due to their small size and material containment. No specialized equipment is required.
3. Customizable growth media means the best combination of weight and desired plant establishment can be achieved.
4. Use of GardenSoxx™ can aid in attaining credits as part of an overall LEED program.
5. GardenSoxx™ can be preseeded or preplanted/ grown as part of a custom program for easier establishment on the rooftop and an immediate

result.

For more information on LEED see Filtrex® Tech Link #3301 in the Appendix.

#### **Installation**

1. GardenSoxx™ are easily managed and can be brought to the rooftop by crane, scaffold, or via the service elevator
2. GardenSoxx™ shall be placed on an approved impervious roof membrane. An additional root barrier geotextile shall be used below GardenSoxx™
3. Arrange GardenSoxx™ according to desired orientation.
4. Cut a small hole in the GardenSoxx™ mesh, approximately the size of the plug or root mass of the plant.
5. With your fingers or with any other tool, make a hole in the growing media for the the plant.
6. Place the plant into the hole, making sure to cover the plug/roots completely. Lightly pat the growing media around the plant.
7. GardenSoxx™ shall be water immediately topically or through Drip Tape Irrigation System.

#### **Inspection & Maintenance**

Maintenance requirements are typically limited to plant growth requirements and growth media used. Plants should be fertilized and watered as needed. If using Drip Tape Irrigation, this is easily regulated and applied through the system.



GardenSoxx™ are easily individually removed and replaced should damage or significant plant quality degradation occur.

**Method of Measurement**

Bid items shall show measurement as GardenSoxx™ with desired media blend per linear foot or square ft.

**ADDITIONAL INFORMATION**

For other references on this topic, including trade magazine and press coverage, visit the Filtrexx® Website at: <http://www.filtrexx.com>

For research reports not included in the Appendix, visit: <http://www.filtrexx.com>

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## TABLES & FIGURES:

**Table 1.1.** Filtrexx® GardenSoxx™ Material Specifications.

Material Type	Multi-Filament Polypropylene SafteySoxx	Multi-Filament Polyester GardenSoxx
Material Characteristic	Photodegradable	Photodegradable
Design Diameters	8 in (200mm), 12 in (300mm), 18 in (400mm), 24 in (600mm), 32 in (800mm)	5 in (125mm), 8 in (200mm), 12 in (300mm)
Mesh Opening	1/8 in (3mm)	<1/16 in (1.5mm)
Tensile Strength	202 psi (14.2 kg/cm2)*	175 psi (12.3 kg/cm2)
% Original Strength from Ultraviolet Exposure (ASTM G-155)	100% at 1000 hr	100% at 1000 hr
Functional Longevity/ Project Duration	2-5 yr	2-5 yr

**Table 1.2.** Filtrexx® GardenSoxx™ Design Weight Specifications.

GardenSoxx Diameter	100% Organic Growth Media	50/50 Medium weight mix (50% Organic)	80/20 Light weight Mix (20% Organic)
5"	4 lbs/sq.ft	3 lbs/sq.ft	2 lbs/sq.ft
8"	10 lbs/sq.ft	7 lbs/sq.ft	5 lbs/sq.ft
12"	20 lbs/sq.ft	14 lbs/sq.ft	10 lbs/sq.ft

