COLUMBIA GREEN TECHNOLOGIES

TECHNICAL INFORMATION SHEET

Pre-Grown Tray System

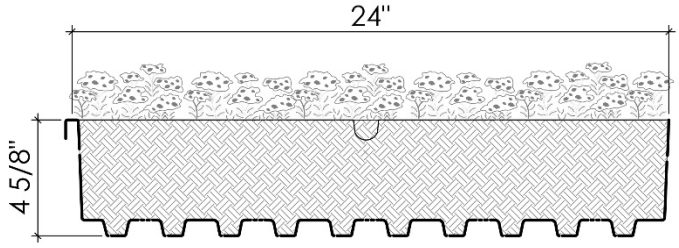
(Patented: 7,603,808)

Product NUMBER: PL4300

Description:

The pre-grown tray provides a turnkey solution that meets or exceeds all guidelines for Green Roofs. The trays are easy to install and feature interlocking edges which prevent shifting or migration of growing media onto the roof membrane. At 24" x 24" x 4.625" deep, the pre-grown tray is appropriate for extensive and semi-intensive vegetative roof profiles. The modules are pre-grown with plants (most commonly sedum) selected by the project designer and shipped to the job site with approximately 90%+ vegetation coverage.

Comprised of a heavy duty recycled polypropylene, the Columbia Green Technologies' Tray system is designed with a channelized bottom to maximize stormwater retention. It can reduce both the amount and rate of stormwater run-off and is capable of retaining up to 70% of annual precipitation. Detailed stormwater retention calculations and hydrographs are available upon request.



Planting Options:

- Plants are grown per the project specifications, provided they are appropriate for the local climate zone and sufficient lead time has been provided. Please contact Columbia Green Technologies for more information.

LEED Information:

- Post-Consumer Recycled Content: 88%
- Manufacturing Location: Washougal, WA 98671

Declare Label for Materials Transparency:

The Declare Label is a voluntary disclosure of building material ingredients which offers Living Building Challenge and other project teams concerned about building product ingredients a guide for product specification. We are pleased to announce that our tray system is 'Red List Free' which means it doesn't contain "worst in class" materials, chemicals, and elements known to pose serious risks to human health and the greater ecosystem. www.declareproducts.com

Wind Uplift:

- *ANSI/SPRI RP-14 Wind Design Standard for Vegetative Roof Systems* is the only Wind Uplift standard for the United States.
- Due to the interlocking design, The Planted-In-Place Tray is considered a #2 Ballast system (Increased wind uplift resistance).
- Please request a copy of the ANSI/SPRI RP-14 User Guide.

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System Weight:

Includes 2 lbs/s.f. (cuttings) for plant material weight

System Depth	*Dry Weight*	*Saturated Weight*
4.625" Media Depth	15 - 20 lbs./ft^2	25 - 30 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:

Empty Tray:	
Thickness:	100 MIL.
Dimension:	24"W. x 24"L. X 4.625"
Coverage:	4 ft^2
Weight:	3.6 lbs.
Packaging:	Stacked – 400 trays/pallet
Pre-Vegetated Tray:	
Typical Weight for Handling Purposes Only:	+/- 100 lbs. each

Installation:

1. Prior to installation, it is the Project Representative's responsibility to consult with a registered structural engineer to determine whether the structure is adequately reinforced to withstand the weight of a fully saturated vegetative tray.
2. Perform tray installation only after a representative from the roofing membrane manufacturer has inspected the membrane and found it to be in accordance with the membrane manufacture's Specifications.
3. Place the vegetative trays directly on the roofing membrane or protective layer as determined by the membrane manufacture.
4. Using the interlocking sides, overlap the vegetative trays.
5. After all trays have been installed, irrigate plant material to ensure growth.

Storage:

- Upon delivery, move plants out of direct sun to a cool location and remove cellophane wrapping.
- Trays may be left unstacked for a maximum of 12-hours, provided they are kept in the shade.
- Water 2-3 times per week until the trays are installed on the roof.
- Store away from sources of ignition and extremely high temperatures.

Precautions:

- Confirm with a certified Structural Engineer that the structure can support the saturated weight of the vegetative roof system.
- To facilitate drainage a minimum roof slope of 1/8" in 12" min. must be provided.
- System components should not be installed when the weather is below 45 ºF (7.2 ºC) or above 95 ºF (35 ºC).
- Do not drag modules into position.
- Use caution when lifting trays.
- Check roof drains regularly to ensure there are no obstructions to impede water flow.
- Wash exposed skin prior to eating, drinking or smoking and at the end of each shift.
- Wear impermeable protective clothing, eye wear and self-contained breathing apparatus when cutting trays.