Roofmeadow® Type V Data Sheet

Our experience demonstrates that the most efficient designs for the vast majority of American green roofs can be derived from five basic green roof types (Type I, II, III, IV, V). Roofmeadow® has developed assemblies for each of these types.

The selected assembly depends in part on project conditions including climate, desired plant community, performance requirements, and load bearing capacity of the building. All assemblies will include the following elements: 1) protection of the waterproofing membrane from root and biological attack, 2) protection of the waterproofing membrane from physical abuse and accident, 3) a base drainage layer, 4) a separation layer to prevent fine-grained engineered soils from fouling or clogging the drainage layer system, and 5) an engineered soil to support the vegetation.

Type V: Dual Media With Reservoir Sheet

A synthetic reservoir sheet over a protection fabric forms the base of the Type V assembly, which offers one solution to installing a three-course green roof over a PMR roofing system. A deep reservoir sheet is required; typical reservoir sheets are 2.6 to 2.4 inches (4 to 6 cm) thick and usually retain between 0.2 and 0.4 inches (0.5 to 1.0 cm) of water when filled with granular media. The coarse, large-grained granular media in the reservoir sheet cups 1) stabilizes the sheet, 2) facilitates drainage, and 3) reduces the potential for drought stress. A root-permeable separation fabric separates the fine-grained growth media from the granular media and prevents the fines from mixing with the granular media. The reservoir sheet stores captured rain or irrigation water for the root mass, and irrigation is provided by surface or sub-surface (just above the reservoir sheet) drip lines. Typical assembly thicknesses range from 6 to 10 inches (15 to 26 cm).

The profile of a Type V assembly is as follows:

Wind Erosion Stabilization System
Growth Medium
Root-permeable Separation Fabric
Light-weight Granular Drainage Media
Synthetic Reservoir Sheet (water storage layer)
Protection Fabric
Root Barrier Membrane (when required)
Waterproofing System