

LiveRoof® System Properties

SYSTEM	LITE	STANDARD	DEEP	MAXX
Soil Depth	2.5 in (65 mm)	4.25 in (110 mm)	6 in (150 mm)	8 in (200 mm)
Dry Weight	±12 lbs/ft ² (±0.6 kPa)	±20 lbs/ft ² (±1.0 kPa)	±30 lbs/ft ² (±1.4 kPa)	±40 lbs/ft ² (±1.9 kPa)
Fully Saturated Weight <i>Maximum, varies by vegetation type and maturity level</i>	≤17 lbs/ft ² (≤0.8 kPa)	≤29 lbs/ft ² (≤1.4 kPa)	≤50 lbs/ft ² (≤2.4 kPa)	≤65 lbs/ft ² (≤3.1 kPa)
Maximum Water Holding Capacity (ASTM E2397)	48.3%			
Wilt Point of Plants	10%			
Maximum Available Capacity of Growing Medium to Hold Water	38.3%			
Growing Medium Maximum Moisture Storage	.96 in (24 mm) 0.6 gal/ft ² (24.4 L/m ²)	1.6 in (40 mm) 1 gal/ft ² (41.3 L/m ²)	2.2 in (55 mm) 1.3 gal/ft ² (55.9 L/m ²)	3 in (76 mm) 1.8 gal/ft ² (76.2 L/m ²)
Plant Moisture Storage (Sedums)	0.4" (10 mm) 0.25 gal/ft ² (10.1 L/m ²)			
System Total Storm Water Storage (Assuming Initial Moisture 0.25 in / 6mm)	1.11 in (28 mm) 0.7 gal/ft ² (28.2 L/m ²)	1.75 in (44 mm) 1.1 gal/ft ² (44.4 L/m ²)	2.35 in (60 mm) 1.5 gal/ft ² (59.7 L/m ²)	3.15 in (80 mm) 2 gal/ft ² (80 L/m ²)
Water Permeability (saturated hydraulic conductivity)	0.434 in/min (0.018 cm/s)			
WITH ROOFBLUE™ RISER (for use with control-flow drain system)				
Maximum Water Depth	3.5 in (89 mm)			
Void Space	90.5%			
Maximum Water Volume Detained	456 in ³ (7472 cm ³) 1.97 gal/ft ² (80.4 L/m ²)			
Maximum Water Volume Managed with Retention and Detention <i>Actual water retained / detained will vary with drain selection, spacing and roof pitch</i>	615 in ³ /ft ² 2.6 gal/ft ² (108 L/m ²)	708 in ³ /ft ² 3 gal/ft ² (125 L/m ²)	793 in ³ /ft ² 3.4 gal/ft ² (140 L/m ²)	908 in ³ /ft ² 3.9 gal/ft ² (160 L/m ²)
WIND AND FIRE RESISTANCE				
FM Approval Standard for Vegetative Roof Systems (FM 4477)		FM Approved		
Fire Resistance (ASTM E108) with Succulent Plantings <i>* Test Performed</i> <i>** Performance Expected Based on Similar Testing</i>	Class A**	Class A*		Class A**
External Fire Design Standard for Vegetative Roofs (ANSI/SPRI VF-1)	Meets requirements for generic fire resistive vegetative systems (4.1)			
Wind Uplift Resistance (CAN/CSA A123.24-15) <i>* Full Scale Test Performed with WindDisc</i> <i>** Performance Expected Based on Similar Testing of Lighter System(s)</i>	200 PSF (9.6 kPa) sustained* (133 PSF (6.4 kPa) rating after 1.5 experimental factor)		min. 200 PSF** (133 PSF after 1.5 experimental factor)	
Wind Flow Resistance (CAN/CSA A123.24-15) <i>* Test Performed (no WindDisc) – 200km/hr is max wind speed produced by test equipment.</i> <i>** Performance Expected Based on Similar Testing of Lighter System(s) & modeling</i>	100 mph (160 km/h) sustained* (67mph (108 km/h) rating after 1.5 design factor)	124 mph (200 km/h) sustained* (83mph (133 km/h) rating after 1.5 design factor)	150 mph (240 km/h) projected** (100mph (160 km/h) after 1.5 design factor)	172 mph (276 km/h) projected** (115mph (185 km/h) after 1.5 design factor)
Wind Design Standard for Vegetative Roofing Systems (ANSI/SPRI RP-14)	#4 Ballast (3.13.1)	#2 Ballast (3.13.2) and #4 Ballast (3.13.1)		