

WATER STORAGE MAT

Water Storage Mat is a super-thick, geotextile mat made from mechanically consolidated, needle punched, 100% recycled polyester fibers. It offers exceptional water storage capacity, superior mechanical strength, and moderate capillarity.

Water Storage Mat can be used under low-slope green roofs to enhance water retention and provide uniform water distribution. Since three layers of Water Storage Mat will retain approximately one inch of rainfall, it can also be covered with a gravel ballast to create non-vegetated roofs that reduce and delay stormwater runoff (“blue roofs”). The dense structure of the mat assures that it will not compress under long-term loading and will retain its hydraulic properties. All rolls are electrically scanned for metal debris and broken punching needles.



PHYSICAL CHARACTERISTICS

Property	Test Method	US	Metric
Dry Weight (typical)	ASTM D5261	36 oz/yd ²	1200 g/m ²
Thickness (typical)	ASTM D5729	5/16 in	8.0 mm
Water Retention (marv)	ASTM E2398	0.18 gal/ft ²	7.2 l/m ²
Saturated Density (marv)	ASTM E2398	1.7 lb/ft ²	8.4 kg/m ²
Capillary Rise (marv after 24 hours)	conductivity probe	2.5 in	65 mm
Static Puncture CBR (marv)	ASTM D6241	1530 lb	6800 N
Pin Puncture (marv)	ASTM D4833	310 lb	1400 N
Elongation (marv)	ASTM D4632	50%	50%
Grab Tensile (marv)	ASTM D4632	450 lb	2000 N
Trapezoidal Tear (marv)	ASTM D4533	210 lb	925 N
Roll Dimensions (typical)	-	6 ft x 33.3 ft	1.8 m x 10.2 m
Roll Surface Area (typical)	-	200 ft ²	19 m ²
Roll Weight (typical)	-	45 lb	20 kg

(marv = minimum average roll value; allow 10-15% coverage loss for overlaps)

INSTALLATION

Since Water Storage Mat becomes very heavy when saturated with water, all rolls are shipped individually wrapped in waterproof plastic bags. Store the rolls in a dry location or under a waterproof tarp.

Unroll Water Storage Mat, overlapping adjacent sheets approximately six inches. Cut with a heavy-duty shears or with a utility knife. Spray with water to prevent uplift during windy conditions. Apply drainage plates or granular media directly over the mat.

For uniform green roof irrigation with granular drainage or single-layer green roof systems, install drip tubing directly over Water Storage Mat. The mat’s capillarity will wick water in all directions.