

## PROTECTION MAT

*Protection Mat* is a thick, multi-purpose geotextile protection mat made from mechanically consolidated, needle punched, 100% recycled polyester fibers. It offers puncture resistance, water storage, and capillarity at a very economical price.

Protection Mat is typically used as the bottom of a green roof system to protect the underlying waterproofing or root barrier from damage during green roof installation or maintenance. Although it is most commonly used under drainage plates or other sheet drainage materials, it's water-retention and capillary properties also make it suitable for use with granular media drainage systems.

All rolls are electrically scanned for metal debris and broken punching needles.



### PHYSICAL CHARACTERISTICS

Property	Test Method	US	Metric
Dry Weight (typical)	ASTM D5261	16 oz/yd <sup>2</sup>	540 g/m <sup>2</sup>
Thickness (typical)	ASTM D5729	1/8 in	3.5 mm
Water Retention (marv)	ASTM E2398	0.08 gal/ft <sup>2</sup>	3.0 l/m <sup>2</sup>
Saturated Density (marv)	ASTM E2398	0.7 lb/ft <sup>2</sup>	3.5 kg/m <sup>2</sup>
Capillary Rise (marv after 24 hours)	conductivity probe	2.5 in	65 mm
Static Puncture CBR (marv)	ASTM D6241	590 lb	2600 N
Pin Puncture (marv)	ASTM D4833	160 lb	700 N
Elongation (marv)	ASTM D4632	50%	50%
Grab Tensile (marv)	ASTM D4632	170 lb	750 N
Trapezoidal Tear (marv)	ASTM D4533	70 lb	300 N
Roll Dimensions (typical)	-	6 ft x 66.7 ft	1.8 m x 20.4 m
Roll Surface Area (typical)	-	400 ft <sup>2</sup>	37 m <sup>2</sup>
Roll Weight (typical)	-	45 lb	20kg

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

### INSTALLATION

Since Protection 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 Protection Mat in any direction, 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 Protection Mat. The mat's capillarity will wick water in all directions.