

# GREENSCAPES™ GS-305

## DRAINAGE LAYER

### DESCRIPTION

AQUADRAIN GS-305 is a storm water retention and drainage composite product used within GreenScapes greenroof systems. GS-305 consists of a 3-dimensional polymeric sheet formed to create a high flow dimpled drainage core. The formed dimple core retains storm water but allows excess storm water to drain through drainage holes in the top of the drain board. AQUADRAIN GS-305 is preassembled with root resistant spunbonded geotextile filter fabric bonded to the top of the core and a non-woven filter fabric bonded to the bottom.

### APPLICATIONS

AQUADRAIN GS-305 provides stormwater retention and drainage for CETCO GreenScapes Greenroof Systems. AQUADRAIN GS-305 allows for storage of up

to 0.042 gallons of stormwater per square foot promoting irrigation through the plant roots and evaporation and condensation into the GS-500 Series Growing Media.

### INSTALLATION

Install AQUADRAIN GS-305 loose laid with the dimple side down for water retention and with the dimple side facing up for drainage. Do not mechanically fasten. Install adjacent rows butted together with filter fabric flap overlapping adjacent drainage panel ensuring the Growing Media does not pass through gaps between adjacent drainage panels. Cut the GS-305 composite as required to fit around all penetration and drainage details.

Minimize direct traffic on the drainage material until placement of the Growing Media to avoid shifting of the installed

drainage composite. Do not drive vehicles directly on drainage composite prior to installation of the Growing Media. Repair damaged or disrupted drainage composite prior to installing of the Growing Media. Do not leave exposed for prolonged time period.

### PACKAGING

AQUADRAIN GS-305 is available in rolls 4' (1.2 M) by 50' (15.2 M) 200 sq-ft (18.5 sq m); per roll individually packaged in bags. Roll weight is 50 lbs.

PHYSICAL PROPERTIES		
PROPERTY	TEST STANDARD	TYPICAL VALUE
<i>DRAINAGE CORE PROPERTIES</i>		
Panel Height	ASTM D1777	0.40" (10.2 mm)
Compressive Strength	ASTM D1621	15,000 psf (715 kPa)
Flow	ASTM D4716	21 gal/min/foot width (261 l/min/m)
<i>TOP SPUNBONDED FILTER FABRIC PROPERTIES</i>		
Weight		2.95 oz/yd <sup>2</sup> (100 g/m <sup>2</sup> )
Grab Tensile Strength	ASTM D5034	75 lbs (0.33 kN)
Grab Elongation	ASTM D4632	40%
Trapezoidal Tear	ASTM D4533	20 lbs (0.09kN)
<i>BOTTOM NON-WOVEN FILTER FABRIC PROPERTIES</i>		
Weight		2.1 oz/yd <sup>2</sup> (70 g/m <sup>2</sup> )
Grab Tensile Strength	ASTM D4632	45 lbs. (0.29 kN)
Puncture	ASTM D4833	65 lbs (0.28 kN)
<i>TOTAL COMPOSITE PROPERTIES</i>		
Weight (Dry)		0.225 lbs/sf (1.1 kg/m <sup>2</sup> )
Weight (Saturated - water-filled cups)		0.351 lbs/sf (1.71 kg/m <sup>2</sup> )
Water Retention		0.042 gals/sf (1.71 l/m <sup>2</sup> )

North America: 847.851.1800 | 800.527.9948

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