

AQUACHECK® DS

GREEN ROOF DRAINAGE SYSTEM

GREEN

SPECIFICATION INFORMATION GREEN ROOF DRAINAGE BOARD

Revised: 06-09-11

1.0 PRODUCT NAME

AquaCheck® DS GREEN
Green Roof Drainage Board

2.0 MANUFACTURER



Insulation Solutions Inc.
401 Truck Haven Road
East Peoria, IL 61611

Engineering Assistance
Toll Free: 866-698-6562
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3.0 PRODUCT DESCRIPTION

3.1 Basic Use:

AquaCheck® DS GREEN is specifically designed to completely manage green roofs by providing drainage, aeration and retention in one layer. The high flow dimpled core efficiently transfers water to proper collection areas while also providing the necessary aeration for sustainable green roofs.

AquaCheck® DS GREEN retains water within the core to ensure proper hydration. The root resistant filter fabric prevents roots from affecting the drainage/aeration layer and prohibits soil from being washed away.

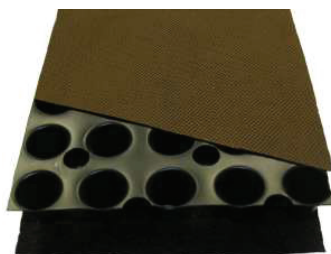
3.2 Composition & Materials:

AquaCheck® DS GREEN consists of an impermeable sheet cusped under heat and pressure to form a high flow dimpled drainage core. The core is perforated, then bonded to 100% post consumer recycled (ECO) root barrier fabric on top. A protection filter fabric, specifically for green roof applications is then bonded to the bottom of the core.

3.3 Product Dimensions & Weight:

AquaCheck® DS GREEN is available in 4' x 50' rolls and weighs approximately 88 lbs.

3.4 Product Picture:



4.0 TECHNICAL DATA

4.1 Applicable Standards

- American Society for Testing & Materials (ASTM)
- ASTM D 1777** Standard Test Method for Thickness of Textile Materials
- ASTM D 1621** Standard Test Method for Compressive Properties of Rigid Cellular Plastics
- ASTM D 4716** Standard Test Method for Determining the (in-plane) Flow Rate per Unit Width and Hydraulic Transmissivity of a Geosynthetic Using a Constant Head
- ASTM D 4491** Standard Test Methods for Water Permeability of Geotextiles by Permittivity
- ASTM D 4833** Standard Test Method for Index Puncture Resistance of Geomembranes and Related Products
- ASTM D 4632** Standard Test Method for Grab Breaking Load and Elongation of Geotextiles
- ASTM D 3776** Standard Test Methods for Mass Per Unit Area (Weight) of Fabric
- ASTM D 5304** Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)
- ASTM D 1117** Standard Guide for Evaluating Nonwoven Fabrics

PROPERTIES		TEST METHOD	AQUACHECK® DS GREEN	
Test Procedure		Applicable Standards	English	Metric
CORE				
Thickness		ASTM D-1777	1.0 in.	2.54 cm.
Compressive Strength		ASTM D-1621	9,500 psf	455 kNm ²
Flow (Hydraulic Gradient = 1)		ASTM D-4716	30 gal/min/ft	372 L/min/m
Water Retention			1.1 gal/10 ft ²	4.2 L/.93 m ²
FABRIC (ROOT)				
Basis Weight		ASTM D-3776	.33 oz/ft ²	100 gsm
Grab Tensile		ASTM D-5034	75/70 lbf	34 kgf
Grab Elongation		ASTM D-5034	40%	40%
Thickness		ASTM D-1777	20 mils	.49mm
Trapezoidal Tear		ASTM D-1117	20 lbf	9.1 kgf
Water Flow Rate		ASTM D-4491	250 gal/min/ft ²	10,184 L/min/m ²
FABRIC (PROTECTION)				
Basis Weight		ASTM D-3776	.42 oz/ft ²	129 gsm
Grab Tensile		ASTM D-5034	90 lbs.	40.8 kg
Grab Elongation		ASTM D-5034	60%	60%
Thickness		ASTM D-1777	51 mils	1.3 mm
Trapezoidal Tear		ASTM D-1117	40 lbs	18.1 kg
Water Flow Rate		ASTM D-4491	140 gal/min/ft ²	5704 L/min/m ²

Note: To the best of our knowledge, these are typical property values and are intended as guides only, not as specification limits. Insulation Solutions Inc.® makes no warranties as to the fitness for a specific use or merchantability of products referred to, no guarantee of satisfactory results from reliance upon contained information or recommendations and disclaims all liability for resulting loss or damage.