

Description

EnkaRetain & Drain is one of a new generation of products designed specifically for vegetated roofs. This multi-function composite consists of a 50% post-industrial recycled polypropylene drainage core of fused, entangled filaments and a specially formulated water retention fabric bonded to one side. The entangled filaments are molded into a square waffle pattern that maintains the flexible design of other Enkadrain products. The composite water retention fabric consists of a 8 oz/yd² - 100% post consumer recycled non-woven polyester fabric mechanically bonded to a 12 oz/yd² layer of synthetic hydrophilic (water) absorbent mat. The absorbent mat is designed to hold 10 to 12 times its unit weight of water. It is a very strong, durable composite that is extremely resistant to puncture and tearing. The composite is inert to biological degradation and naturally encountered chemicals, alkalis, and acids. This product can help contribute up to 2 LEED points when used in conjunction with other recycled content products. As a part of a green roof it can contribute towards additional LEED points by reducing stormwater runoff, heat islands and energy consumption.

Recommended Applications

- Extensive green roofs
- Intensive green roofs
- Exterior & interior planters
- Landfill caps

Features and Benefits

- Excellent durability
- Protects waterproofing during and after placing of planting media
- Conforms to irregular surfaces and offsets
- Waffle design creates open flow path — even during loading of planting media
- Long rolls reduce installation costs by reducing butt seams and eliminating interlocking
- Recycled content polymer in core and fabric contributes towards LEED points
- Provides superior water holding capacity
- Reduces runoff volume in green roof applications
- 3" fabric overlap flap

Technical Data

Physical Properties

Property	English Units	Metric Units
Core Material	Recycled Polypropylene	
Total Thickness	0.60 in	mm
Total Weight (avg.)	36.0 oz/yd ²	g/m ²
Core Thickness	0.40 in	mm
Core Weight (avg.)	16.0 oz/yd ²	g/m ²

Flow Rates

Pressure	1.0 Gradient	0.1 Gradient
1000 psf	23.0 gal/min/ft	6.9 gal/min/ft

*Typical flow vs. pressure for vertical applications (ASTM D 4716) Sample Configuration: Plate/Enkadrain/Plate
Values are average of machine direction and cross machine direction test results*

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Technical Data

Fabric Properties

Property	English Units	Metric Units	Test Method
<i>Polymer</i>	<i>Polypropylene Recycled Polyester</i>		
<i>Fabric Color</i>	<i>Light Green</i>		
<i>Weight</i>	20.0 oz/yd ²	g/m ²	ASTM D 5261
<i>Thickness</i>	165 mils		ASTM D-5199
<i>Grab Strength MD</i>	135.0 lbs	kN	ASTM D 4632
<i>Grab Elongation MD</i>	70%	70%	ASTM D 4632
<i>Mullen Burst Strength</i>	300 psig		ASTM D 3786
<i>Puncture Strength</i>	70.0 lbs	0.31 kN	ASTM D 4833
<i>Water Holding Capacity</i>	1000-1200%		ASTM D 4250
<i>Water Holding Capacity</i>	0.10– 0.15 gal/ft ²		ASTM D 4250

Polymer Properties

Polypropylene has excellent resistance to organic solvents, degreasing agents, acids, and alkalines. It has tensile strength superior to high density polyethylene. It has a low moisture absorption rate, is resistant to staining, and is very light weight.

Packaging

Property	English Units	Metric Units
<i>Product ID</i>	3611-061-4000	
<i>Core Width</i>	39.0 in	99.1 cm
<i>Length</i>	61.5 ft	18.6 m
<i>Area</i>	22.2 yd ²	18.6 m ²
<i>Area</i>	200.0 ft ²	18.6 m ²
<i>Roll Diameter</i>	27.0 in	68.6 cm
<i>Gross Roll Weight</i>	58.0 lbs	26.4 kg

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