

## EnkaDrain® 3811R Draining Solutions

**Description**

EnkaDrain 3811R is one of a new generation of environmentally conscious EnkaDrain products. This drainage composite consists of a post-industrial recycled polypropylene drainage core of fused, entangled filaments and a geocomposite fabric bonded to each side. The entangled filaments are molded into a square waffle pattern that maintains the flexible design of other EnkaDrain products. This product, because it exceeds 40% post-industrial recycled content, can help contribute up to 2 LEED points when used in conjunction with other recycled content products. EnkaDrain 3811R can contribute towards additional LEED points when used with a green roof by reducing stormwater runoff, heat islands, and energy consumption. The second fabric eliminates the need for protection board and stops penetration and migration of bitumen membrane.

- Applications**
- Foundation walls
  - Green roofs
  - Plaza decks
  - Retaining walls
  - Beneath slabs
  - Earth sheltered homes

- Features and Benefits**
- Excellent durability
  - Continuous flow in all directions, even under high loads
  - Conforms to irregular surfaces and corners with complete and effective coverage
  - Long rolls reduce installation costs by eliminating interlocking and excessive seams
  - Protects waterproofing during and after backfill
  - Waffle design creates open flow path – even during backfill
  - Recycled content polymer contributes towards LEED points
  - Increased flow rates over same thickness nylon and HDPE drains
  - 3" fabric overlap flap

Physical Properties	Property	English Units	Metric Units
	Core Material	Recycled Polypropylene	
	Thickness	0.45 in	11.43 mm
	Total Weight	23.7 oz/yd <sup>2</sup>	803.7 g/m <sup>2</sup>
	Core Weight	16.0 oz/yd <sup>2</sup>	542.6 g/m <sup>2</sup>
	Low & Bonar Compressive Load Test <sup>1</sup>	> 30,000 psf	1436 kN/m <sup>2</sup>

<sup>1</sup> Low & Bonar Test Method: ASTM D 1621 modified and ASTM D4716

\* Failure defined as reaching yield point or no continued measurable flow under stated load

<b>Flow Rates</b>	<b>Pressure</b>	<b>1.0 Gradient</b>	<b>0.5 Gradient</b>	<b>0.2 Gradient</b>
	250 psf	20.2 gal/min/ft	13.6 gal/min/ft	7.7 gal/min/ft
	500 psf	18.1 gal/min/ft	12.4 gal/min/ft	7.3 gal/min/ft
	1000 psf	17.9 gal/min/ft	12.2 gal/min/ft	7.2 gal/min/ft
	2000 psf	16.8 gal/min/ft	11.2 gal/min/ft	7.0 gal/min/ft
	3000 psf	12.9 gal/min/ft	7.9 gal/min/ft	4.9 gal/min/ft
	3600 psf	8.6 gal/min/ft	4.7 gal/min/ft	2.8 gal/min/ft
	5000 psf	3.8 gal/min/ft	2.5 gal/min/ft	1.3 gal/min/ft
	8000 psf	1.7 gal/min/ft	1.0 gal/min/ft	0.5 gal/min/ft

Typical flow vs. pressure for vertical applications (ASTM D 4716) Sample Configuration: Plate/EnkaDrain/Plate

<b>Fabric Properties</b>	<b>Property</b>	<b>English Units</b>	<b>Metric Units</b>	<b>Test Method</b>
	Polymer	PP		
	Fabric Color	Black		
<b>3D Core</b>	Weight	4.5 oz/yd <sup>2</sup>	152.6 g/m <sup>2</sup>	ASTM D 5261
	Grab Strength MD/CD	120.0 lbs	0.54 kN	ASTM D 4632
	Grab Elongation	50%	50%	ASTM D 4632
	Trapezoidal Tear	50.0 lbs	0.22 kN	ASTM D 4533
	Puncture Resistance	70.0 lbs	0.31 kN	ASTM D 4833
	AOS (maximum average)	70 US Sieve	0.212 mm	ASTM D 4751
	Flow Rate	120.0 gal/min/ft <sup>2</sup>	4887 l/sec/m <sup>2</sup>	ASTM D 4491
	Permittivity	1.8 sec <sup>-1</sup>	1.8 sec <sup>-1</sup>	ASTM D 4491

Values are MARV Minimum Average Roll Value

<b>Fabric Properties</b>	Polymer	PA6 & PET		
	Fabric Color	Grey		
<b>Nonwoven</b>	Weight	3.54 oz/yd <sup>2</sup>	120.0 g/m <sup>2</sup>	ASTM D 5261
	Grab Strength MD/CD	125.0 lbs	556 N	ASTM D 4632
	Grab Elongation	40%	40%	ASTM D 4632
	Trapezoidal Tear	40.0 lbs	177.9 N	ASTM D 4533
	Puncture Resistance	35.0 lbs	155.0 N	ASTM D 4833
	AOS (maximum average)	45 US Sieve	0.357 mm	ASTM D 4751
	Flow Rate	185.0 gal/min/ft <sup>2</sup>	125.6 l/sec/m <sup>2</sup>	ASTM D 4491
	Permittivity	2.5 sec <sup>-1</sup>	2.5 sec <sup>-1</sup>	ASTM D 4491

Values are MARV Minimum Average Roll Value

**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**

<b>Property</b>	<b>English Units</b>	<b>Metric Units</b>
Product ID	3811-101-1001	
Core Width	39.0 in	99.1 cm
Length	100.0 ft	30.5 m
Area	36.0 yd <sup>2</sup>	30.1 m <sup>2</sup>
Area	324.0 ft <sup>2</sup>	30.1 m <sup>2</sup>
Roll Diameter	27.0 in	68.6 cm
Gross Roll Weight	77 .0 lbs	34.9 kg

**Availability**

For additional details contact your nearest sales office.

**China** T +86 519 6858 5555  
**Netherlands** T +31 85 744 1300  
**USA** T +1 800 365 7391

**Quality Assurance**  
The Quality Assurance System of Low & Bonar has been approved to the ISO 9001 Quality Management System Standard. Certificates are available on request.

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