enka®solutions

TECHNICAL DATASHEET

ENKADRAIN® 3811

DRAINING SOLUTIONS

EnkaDrain® 3811 is a drainage composite that consists of a polypropylene drainage core with 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. The second fabric eliminates the need for protection board and stops penetration and migration of bitumen membrane. EnkaDrain® 3811 can contribute towards LEED points when used with a green roof by reducing storm water runoff, heat islands, and energy consumption.

RECOMMENDED APPLICATIONS

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

FEATURES AND BENEFITS

- Excellent durability
- Protects waterproofing during and after backfill
- Conforms to irregular surfaces and corners with complete and effective coverage
- Waffle design creates open flow path – even during backfill
- Continuous flow in all directions, even under high loads
- Long rolls reduce installation costs by reducing butt seams and eliminating interlocking
- 3” fabric overlap flap
- Increased flow rates over same thickness nylon and HDPE drains

PHYSICAL PROPERTIES

	UNITS	UNITS (METRIC)	
Core Material	Polypropylene		
Thickness	0.50 in	12.7 mm	
Total Weight	24.0 oz/yd^2	813.7 g/m^2	
Core Weight	16.0 oz/yd^2	542.5 g/m^2	
Compressive Load Test[1]	> 30,000 psf	1436 kN/m^2 / No failure*	

1 Test Method: ASTM D 1621 modified and ASTM D4716
* Failure defined as reaching yield point or no continued measurable flow under stated load

FLOW RATE

PRESSURE	1.0 GRADIENT	0.5 GRADIENT	0.2 GRADIENT	
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	

FLOW RATE (CONTINUED)				
PRESSURE	1.0 GRADIENT	0.5 GRADIENT	0.2 GRADIENT	
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	

FABRIC PROPERTIES				
	UNITS	UNITS (METRIC)	TEST METHOD	
Polymer	Polypropylene			
Fabric Color	Black			
Weight	4.5 oz/yd^2	152.6 g/m^2	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 Strength	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^2	4887 l/sec/m^2	ASTM D 4491	
Permittivity	1.8 sec^{-1}	1.8 sec^{-1}	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 is has a low moisture absorption rate, is resistant to staining, and is very light weight

PACKAGING		
	UNITS	UNITS (METRIC)
Product ID	3811-101-1001	
Core Width	39.0 in	30.5 m
Length	100.0 ft	30.2 m^2
Area	36.1 yd^2	99.1 cm

PACKAGING (CONTINUED)		
	UNITS	UNITS (METRIC)
Area	36.1 yd^2	30.2 m^2
Roll Diameter	325.0 ft^2	30.2 m^2
Gross Roll Weight	57.4 lbs	26.0 kg

AVAILABILITY

Please contact your nearest Sales Office for details.

Quality Assurance
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Freudenberg Performance Materials • USA • 1301 Sand Hill Road, Enka, NC, 28728 • T +1 828-665-5000 • Info@enkasolutions.com • www.freudenberg-pm.com • www.enkasolutions.com

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