

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

- Features and Benefits**
- Excellent durability
 - Long rolls reduce installation costs by eliminating interlocking and excessive seams
 - Recycled content polymer contributes towards LEED points
 - Continuous flow in all directions, even under high loads
 - Protects waterproofing during and after backfill
 - Increased flow rates over same thickness nylon and HDPE drains
 - Conforms to irregular surfaces and corners with complete and effective coverage
 - Waffle design creates open flow path – even during backfill
 - 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 ²	803.7 g/m ²
	Core Weight	16.0 oz/yd ²	542.6 g/m ²
	Low & Bonar Compressive Load Test ¹	> 30,000 psf	1436 kN/m ²

¹ 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

Quality Assurance

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Flow Rates	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
	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

Fabric Properties	Property	English Units	Metric Units	Test Method
	Polymer	PP		
	Fabric Color	Black		
3D Core	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 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 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

Fabric Properties	Polymer	PA6 & PET		
	Fabric Color	Grey		
Nonwoven	Weight	3.54 oz/yd ²	120.0 g/m ²	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 ²	125.6 l/sec/m ²	ASTM D 4491
	Permittivity	2.5 sec ⁻¹	2.5 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 has a low moisture absorption rate, is resistant to staining, and is very light weight.

Packaging	Property	English Units	Metric Units
	Product ID	3811-101-1001	
	Core Width	39.0 in	99.1 cm
	Length	100.0 ft	30.5 m
	Area	36.0 yd ²	30.1 m ²
	Area	324.0 ft ²	30.1 m ²
	Roll Diameter	27.0 in	68.6 cm
	Gross Roll Weight	77.0 lbs	34.9 kg

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