

Mirafi® MiraGreen™ D Recycled Nonwoven Geotextiles for Site Drainage

TenCate™ develops and produces materials that function to increase performance, reduce costs and deliver measurable results by working with our customers to provide advanced solutions.

Mirafi® MiraGreen™ Recycled Nonwoven Geotextiles contribute towards earning credits for three key categories in LEED-NC: Sustainable Sites; Materials & Resources; and Innovation & Design Process. LEED-NC (Leadership in Energy and Environmental for New Construction) Green Building Rating System is a nationally accepted green building standard. Mirafi® MiraGreen™ Recycled Nonwoven Geotextiles strive to improve the quality of new construction projects while positively impacting our environment.

The Difference Mirafi® MiraGreen™ D Recycled Nonwoven Geotextiles Make:

- **Environmental.** Mirafi® MiraGreen™ D recycled nonwoven geotextiles are comprised of 30% (LEED calculated) recycled content in lieu of virgin resin raw materials.
- **Cost Effective.** Mirafi® MiraGreen™ D recycled nonwoven geotextiles provide the same quality as standard 100% polypropy-

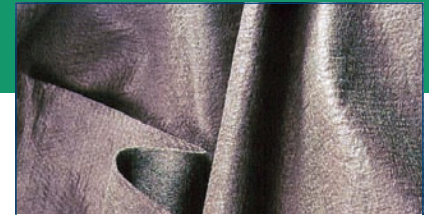
lene or polyester virgin resin based geotextiles.

- **Construction.** Mirafi® MiraGreen™ D recycled nonwoven geotextiles easily conform to the ground or trench surface for trouble free installations.
- **Drainage.** Mirafi® MiraGreen™ D recycled nonwoven geotextiles have high permeability properties providing high water flow rates while providing excellent soil retention.
- **Strength.** Mirafi® MiraGreen™ D recycled nonwoven geotextiles withstand installation stresses with high puncture and tear resistance.

APPLICATIONS

Mirafi® MiraGreen™ D recycled nonwoven geotextiles are used in a wide variety of drainage applications. Lightweight nonwovens are predominantly used for subsurface drainage applications along highways, green roofs, athletic fields, and within embankments under airfields. For these drainage structures to be effective, they must have a properly designed protective filter.

Mirafi® MiraGreen™ D recycled nonwoven geotextiles eliminate the problems of determining the aggregate gradation required to



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match soil conditions, finding a convenient and economical source of a specific aggregate gradation, transporting and placing graded aggregate, and assuring that the in-place aggregate gradation provides effective filter performance.

INSTALLATION GUIDELINES*

French and Trench Drains Geosynthetic Placement
Cut geosynthetic to proper width prior to placement. Width should be enough to conform to the trench perimeter with at least a 15cm (6in) top overlap. Place the geosynthetic roll over the trench, and unroll enough geosynthetic that the geosynthetic can be placed down into the trench. Anchor the edges of the geosynthetic with heavy objects to prevent the geosynthetic from falling into the trench. Where overlaps are necessary between rolls, allow for 1m (3ft) overlap from the upstream to the downstream roll.

* These guidelines serve as a general basis for installation. Detailed instructions are available from your TenCate™ representative.

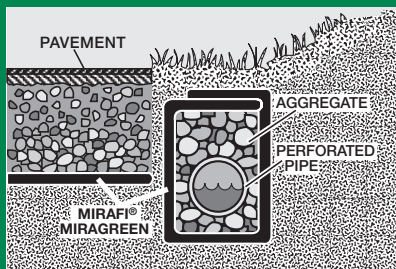


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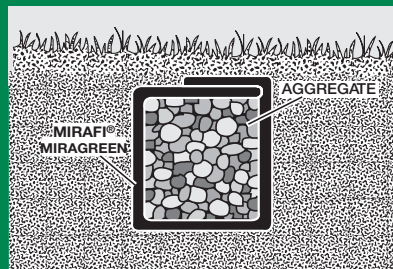
Property / Test Method	Units	D4
RECYCLED CONTENT (LEED CALCULATED)	%	30
MECHANICAL PROPERTIES		
Grab Tensile Strength ASTM D 4632		
Strength @ Ultimate	N (lbs)	445 (100)
Elongation @ Ultimate	%	50
CBR Puncture Strength ASTM D 6241		
	N (lbs)	1113 (250)
UV Resistance after 500 hrs. ASTM D 4355		
	% strength	70
HYDRAULIC PROPERTIES		
Apparent Opening Size (AOS)		
ASTM D 4751	US Sieve	70
Permittivity ASTM D 4491	mm sec ⁻¹	0.2 1.7
Flow Rate ASTM D 4491		
	l/min/m ² (gal/min/ft ²)	4889 (120)
Packaging		
Roll Width	m (ft)	3.8 (12.5) 4.5 (15.0)
Roll Length	m (ft)	110 (360)
Est. Gross Weight	kg (lbs)	75 (165) 85 (188)
Area	m ² (yd ²)	418 (500) 502 (600)

*NOTE: Mechanical Properties and Hydraulic Properties shown are Minimum Average Roll Values (MARV). Apparent Opening Size (AOS) properties shown are Maximum Average Roll Values. (Values and methods could change without notice)

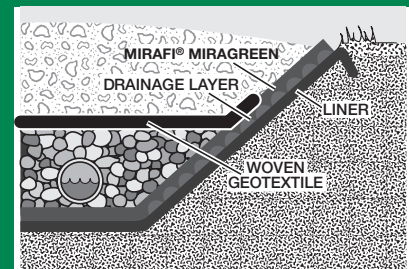
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**Cut-off/Interceptor Drain Along a Roadway
Or Another Critical Structure**



French Drain Without Pipe



Liner Protection Within a Landfill

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