

## Mirafi® X-Series Woven Polypropylene Geotextiles for Soil Separation

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.

The Difference Mirafi® X-Series Geotextiles Make:

- Construction. Woven slit-film construction offers good resistance to installation abuse.
- Strength. High grab tensile and puncture strengths provide good performance in a wide range of roadway applications.
- Environmental. Mirafi® X-Series geotextiles are chemically stable in a wide range of aggressive environments.
- Cost Effective. Mirafi® X-Series geotextiles provide economical solutions to many civil engineering applications including a cost-effective road base separation layer.

### APPLICATIONS

Mirafi® 500X applications include separation under parking lots, residential streets, and roadways. Mirafi® 500X is used over good to moderate strength subgrades for separation of base materials. Mirafi® 500X meets AASHTO M288-00 Specifications for Stabilization and Separation - Class 3.

Mirafi® 600X is used for separation and stabilization over moderate subgrades where coarse, angular, and abrasive base material is required. Mirafi® 600X provides separation and stabilization when moderate loads are expected. Mirafi® 600X meets AASHTO M288-00 Specifications for Stabilization and Separation - Class 1 and 2.

### INSTALLATION GUIDELINES\*

#### Geotextile Placement

Direct placement of the geotextile on the prepared site is usually preferable. Generally, it is advisable to leave vegetative cover such as grass and weeds in place to provide a support matting for construction activities. It should be rolled out flat and tight with no folds. The rolls should be oriented as shown on plans to insure the principal strength direction of the material is placed in the correct orientation. Adjacent rolls should be overlapped or seamed as a function of subgrade strength (CBR).

Prior to fill placement, the geosynthetic should be held in place using suitable means such as pins, piles of soil, etc. so that it does not move around during fill placement.



Mirafi® X-Series Woven Polypropylene Geotextiles

### Fill Placement

Fill should be placed directly over the geosynthetic in 20cm (8in) to 30cm (12in) loose lifts. For very weak subgrades, 45cm (18in) or thicker lifts may be required to stabilize the subgrade, as directed by the engineer.

Typically, vehicles should not be driven on Mirafi® X-Series geotextiles. Tracked construction equipment should not be operated directly upon the geosynthetic. A minimum fill soil thickness of 15cm (6in) is required prior to operation of tracked vehicles over the geosynthetic. Turning of tracked vehicles should be kept to a minimum to prevent tracks from displacing the fill and damaging the geosynthetic.

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

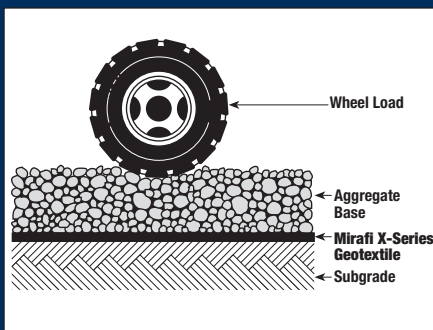


## Mirafi® X-Series Woven Polypropylene Geotextiles for Soil Separation

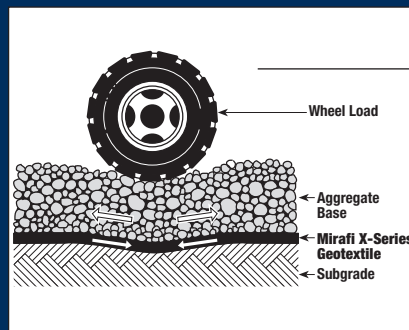
| Property                     | Test Method | Units   | 500X                     | 600X                     |
|------------------------------|-------------|---|--------------------------|--------------------------|
| <b>MECHANICAL PROPERTIES</b> |             |   |                          |                          |
| Grab Tensile Strength        | ASTM D 4632 | N (lbs)   | 890 (200)                | 1402 (315)               |
| Grab Tensile Elongation      | ASTM D 4632 | % MD / CD   | 15 / 10                  | 12/12                    |
| Trapezoid Tear Strength      | ASTM D 4533 | N (lbs)   | 334 (75)                 | 534 (120)                |
| CBR Puncture Strength        | ASTM D 6241 | N (lbs)   | 3115 (700)               | 4005 (900)               |
| UV Resistant after 500 hours | ASTM D 4355 | % Strength  | 70                       | 70                       |
| <b>HYDRAULIC PROPERTIES</b>  |             |   |                          |                          |
| Apparent Opening Size        | ASTM D 4751 | mm (US Sieve)                                     | 0.43 (40)                | 0.43 (40)                |
| Permittivity                 | ASTM D 4491 | sec <sup>-1</sup>                                 | 0.05                     | 0.05                     |
| Flow Rate                    | ASTM D 4491 | l/mm/m <sup>2</sup><br>(gal/min/ft <sup>2</sup> ) | 204<br>(5.0)             | 163<br>(4.0)             |
| <b>Packaging</b>             |             |   |                          |                          |
| Roll Width                   |             | m (ft)  | 3.8 (12.5)<br>5.3 (17.5) | 3.8 (12.5)<br>5.3 (17.5) |
| Roll Length                  |             | m (ft)  | 132 (432)<br>94.2 (309)  | 110 (360)<br>78.7 (258)  |
| Est. Gross Weight            |             | kg (lbs)  | 95 (210)                 | 109 (240)                |
| Roll Area                    |             | m <sup>2</sup> (yd <sup>2</sup> )                 | 502 (600)                | 418 (500)                |

\* NOTE: Mechanical Properties and Hydraulic Properties shown are Minimum Average Roll Values (MARV). Apparent Opening Size (AOS) properties shown are Maximum Average Roll Values.

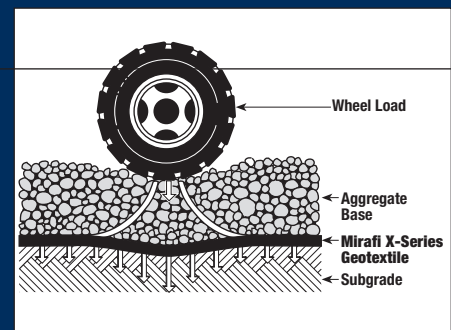
### Mirafi® X-Series Woven Polypropylene Geotextiles



Subgrade/Aggregate Separation



Aggregate Confinement



Subgrade Load Distribution

TenCate™ Geosynthetics North America assumes no liability for the accuracy or completeness of this information or for the ultimate use by the purchaser. TenCate™ Geosynthetics North America disclaims any and all express, implied, or statutory standards, warranties or guarantees, including without limitation any implied warranty as to merchantability or fitness for a particular purpose or arising from a course of dealing or usage of trade as to any equipment, materials, or information furnished herewith. This document should not be construed as engineering advice.

Mirafi® is a registered trademark of Nicolon Corporation.

© 2011 TenCate Geosynthetics North America

PDS.X0311

365 South Holland Drive Tel 800 685 9990 Fax 706 693 4400  
Pendergrass, GA 30567 Tel 706 693 2226 www.mirafi.com



**TENCATE™**  
materials that make a difference